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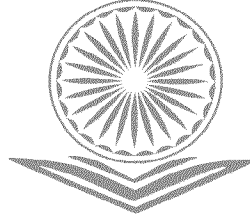
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KEYNOTE

Performance Sport Psychology - Hints for Self-Culture for Sporting and Coaching Fraternity

Prof. M. L. Kamlesh

Ph.D., Patron, SPAI and ASPASP Fellow.

Sport psychology literature is replete with myriad techniques and strategies of “understanding and influencing sport behaviour” (Singer, 1986) in all hues and colours, employed under practice and competitive situations. Highlighted below are some time-tested skills which the coaching and athletic fraternity have profitably used year in and year out for performance enhancement, substantially drawing from the process of development of their mind or capacities through their own efforts. Notably, out of several offshoots of mainstream psychology, sport psychology is the only branch that attempts to provide enriched psychological inputs to the performing athletes and working coaches, developed through the academic, research and clinical Endeavors.

Sport Psychology A Reflexion

As a subject of academic interest, research, and practical application, sport psychology has come of age since its humble beginning six decades ago. Since then, it has taken several giant strides due to substantially supporting efforts of the researchers, physical educators, psychologists, and coaches across the world. Sport psychology has made inroads into the academe and dug its heels in the sports soil, proving its indispensability in the training of athletes irrespective of the level at which they perform. Thanks to the multiplying influence of science and technology harnessed to untying the gordian knots of the human mind and behaviour, and persistent efforts of the sport psychology practitioners that this subject is now evolving towards an established and well-respected professional discipline (critical performance-enhancement science) in the world of sports (Bach, 2015). This can be seen reflected in improved acceptance of sport psychology services by (i) athletes, coaches, and other stakeholders such as academics, athletic trainers, organizers, and officials in the sporting world; by a (ii) growing evidence base of sport psychological theories and interventions; (iii) and by an increase in training programmes and aspiring professionals (mental trainers). The contemporary **sport psychologists** are making a significant contribution in two main areas: (a) helping sportspersons at all levels of their participation to use **psychological** principles (skills) to achieve optimal mental health and to improve performance, and (b) understanding how participation in **sport**, exercise and physical activity affects a person's **psychological** profile. At gross level lot has been done, at subtler level substantial is yet to be done.

Performance Skill Galore

Innumerable sport performance skills have been documented in the annals of sport psychology with diverse ways suggested by various authors to acquire them, strengthen them, and apply them for achieving high levels of performance in competitive situations. According to John Buchanan, a former coach of the Australian Cricket Team, there are four major performance skills for all elite sportsmen and sportswomen, these being: technical skills, physical skills, tactical skills, and mental skills. Typically, these skill groups are categorical, without much being common among them.

In sequence, these can be briefly described and exemplified as given below:

Technical Skills

Skill (technique) of performing is fundamental to sport. Each sport has a peculiar structure of technical skills that allow athletes to play the game or perform the motions for their sport. The goal of technical skills is to execute a movement to the best of the athlete's ability. For example, a running back in football might hone their running skills, which can help them move quickly and make fast turns. Notably, dribbling in basketball and dribbling in water polo both involve different motions. In track and field, technical skills are running, jumping hurdles, and throwing shotputs; in volleyball they include serving, passing, setting, attacking, blocking, and digging, and in basketball, besides dribbling, there is passing, and shooting; etc.

Physical Skills

Physical skills general fitness and skill-related fitness components and body adaptations. Importantly, the functionality of your fitness is determined by a single exercise or skill. Instead, it is made up of several skills like endurance, stamina, strength, flexibility, power, speed, coordination, agility, accuracy, balance, reaction time, etc. Fitness is a requirement for all sport without exception.

Tactical Skills

These are strategic mental abilities used by successful athletes to win games and competitions. Mastering them can help an athlete/team use their techniques effectively. They might involve problem-solving skills and often rely on the athlete's knowledge of their coach's goals. For example, observation, strategic thinking, distance estimation, energy management, communication (in team sport), flexibility changing strategy, unexpected event, player injury.

Mental Skills

Over the years, it has become amply clear that winning or failing to win games or competitions is significantly related to the mental skills that athletes acquire during training and use before, during and after the competitions.

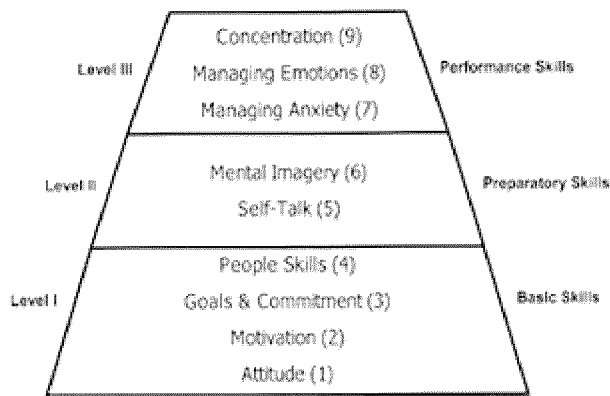
Mental Skills

Mental skills are tools for the mind which the sporting fraternity with the help of their coaches and sport psychologists use to achieve their objectives. Mental skills are known for several *characteristics*. First, they are not inborn abilities, but acquired over time. Second, they should be practiced the same fashion as a technical and physical skills are. Third, most mind skills are general in

nature, but several are specific to a sport. Fourth, mental skills play a crucial role in enabling the athletes to train, peak, and achieve a winning edge. Fifth, psychological skills can be cultivated and improved with constant practice. Sixth, out of an array of mental skills, athletes themselves choose as to which ones can benefit them the most in improving their performance. Finally, these skills are more than adequately flexible in structure, measurement, and application. Therefore, no one needs to be dogged about their use in in the training process.

Major mental skills used by successful athletes come in a huge variety. But to be more specific and clearer, for example, the athletes choose and maintain a positive attitude, maintain a high level of self-motivation, set challenging, but realistic goals, deal effectively with people especially opponents, use positive self-talk, use positive mental imagery, manage anxiety effectively, handle emotions efficiently, and maintain concentration.

This skills can be arranged in a hierarchy as given below:



In the above figure, mental skills are arranged in three upward moving levels. At Level I are placed the *Basic Skills* (comprising attitude, motivation, goal setting and commitment); at Level II, the *Preparatory Skills* (including self-talk and mental imagery); and at Level III are set *Performance Skills* (anxiety and emotion management, and concentration). This is only a suggestive model; there is nothing rigid about mental skill categorization, nor the levels at which these can be used.

However, it must needs be understood that mental requirement differs across sports. Notwithstanding the quantum of physical effort involved in any sport, mental requirement in some sports is comparatively much less, and in some sports, extremely high. For example, weightlifting is far less mentally demanding than competitive tennis which incorporates complex strategies and tactics, played over a longer time frame, has deception, and is a high-technique sport, requiring many hours of learning and grooving strokes.

The *performance-enhancement areas* requiring utmost attention in any system athletic training include (i) Self-confidence and self-esteem, (ii) Motivation, (iii) Goal setting, (iv) Focus, concentration, and attention, (v) Coping with stress and performing under pressure, (vi) Controlling & effective use of aggression, (vii) Team cohesion and dynamics, (viii) Burnout, and (ix) Ability to come back after injury.

The Psycho-training Recipe of Principles

Briefly numerated below are important principles, which, in no case, should be overlooked by all those connected with the objective of performance-enhancement in sport.

- To succeed consistently, both the athletes and their trainers need to seek horizons beyond physical training and ability.
- Mental training is neither a substitute for physical training nor a replacement of talent an individual is born with.
- A strong (or well-prepared) mind may not win the competition, a weak mind decidedly loses one.
- Coaches often know not what their athletes are thinking, so they fail to know, understand the problem points, and provide necessary guidance accordingly.
- Consistency in thinking leads to consistency in performance.
- Coaches differ, naturally so, in their approach to technical skill versus mental mistakes. Most coaches have unflinching faith in technical aspects of the game and vacillate in their attitude towards mind training.
- Mental training process without coach involvement will in all probability be an utter waste of energy, a futile exercise indeed.
- Mental skills need to be measured, objectively and/or subjectively, to maximize their performance and the impact they produced.
- It is nevertheless important for the coaches to think about their own mental skills which should need to be dove-tailed with those of their athletes.

Everyday experience of the athletes, coaches and that of sport psychologists working with individual sportspersons and team sport athletes is helping to widen the scope for mind training techniques and tools to become more innovative, more specific, and more focused on performance-enhancement in a wide variety of sports.

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1. The Interplay between Psychological and Biological Factors in Sports and Exercise: A Psychobiological Perspective

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Abstract

Sports and exercise involve the interplay between psychological and biological factors. Psychologically, athletes' motivation, cognitive processes, and emotions influence their performance, while biologically, the functioning of the cardiovascular, respiratory, and musculoskeletal systems impact the athletes' physical abilities. Psychobiology is an emerging field that examines how these psychological and biological factors interact to influence sports and exercise performance. This paper explores the interplay between psychological and biological factors in sports and exercise from a psychobiological perspective. The relationship between psychological and biological factors in sports and exercise is bidirectional. Psychological factors can influence biological processes, and biological processes can affect psychological factors. The psychobiological approach to sports and exercise emphasizes the interplay between psychological and biological factors in athletic performance.

Keywords: Psychobiology, sports psychology, exercise physiology, athletic performance, motivation, cognitive processes, emotions, cardiovascular system, respiratory system, musculoskeletal system, bidirectional relationship.

Introduction

Sports and exercise involve the interplay between psychological and biological factors. Psychologically, athletes' motivation, cognitive processes, and emotions influence their performance, while biologically, the functioning of the cardiovascular, respiratory, and musculoskeletal systems impact the athletes' physical abilities. Psychobiology is an emerging field that examines how these psychological and biological factors interact to influence sports and exercise performance. This paper explores the interplay between psychological and biological factors in sports and exercise from a psychobiological perspective.

Review of Related Literature

Here are some examples of related literature reviews on "The Interplay Between Psychological and Biological Factors in Sports and Exercise: A Psychobiological Perspective":

"The Psychobiology of Sport: A Systematic Review" by Steptoe et al. (2016) provides a comprehensive overview of the psychobiological factors that influence athletic performance. The authors explore the role of psychological factors such as motivation, anxiety, and self-confidence, as well as the biological factors of the cardiovascular, respiratory, and musculoskeletal systems. They also discuss the importance of understanding the interaction between these factors in developing effective interventions to enhance athletic performance.

"The Relationship between Psychological Factors and Sport Injury: A Systematic Review" by Clement et al. (2018) focuses on the relationship between psychological factors and sport injury. The authors explore the influence of factors such as stress, anxiety, and coping strategies on the incidence and severity of sport injuries. They also discuss the psychobiological mechanisms that underlie this relationship and suggest interventions to prevent sport injuries.

"Psychological Factors and Sport Injuries: Evidence, Issues, and Directions for Future Research" by Brewer et al. (2019) provides a critical review of the literature on the relationship between psychological factors and sport injuries. The authors examine the evidence for different psychological factors such as stress, anxiety, and coping strategies, and discuss the challenges and limitations of this research. They also suggest future directions for research to better understand the interplay between psychological and biological factors in sport injury prevention.

"Psychological and Physiological Factors Associated with Endurance Performance in Athletes" by Martin et al. (2019) provides a systematic review of the psychological and physiological factors associated with endurance performance in athletes. The authors explore the role of psychological factors such as motivation, self-talk, and mental imagery, as well as the physiological factors of the cardiovascular and respiratory systems. They also discuss the interplay between these factors and suggest interventions to enhance endurance performance.

These literature reviews provide valuable insights into the interplay between psychological and biological factors in sports and exercise from different perspectives, such as sport performance, sport injury, and endurance performance. They emphasize the importance of understanding the complexity of this relationship and the need for further research to fully understand the psychobiological mechanisms behind athletic performance.

Psychological Factors in Sports and Exercise

Psychological factors play a critical role in sports and exercise performance. Motivation is one of the most critical psychological factors in athletic performance. Athletes who are highly motivated tend to put in more effort, have higher levels of perseverance, and are more likely to succeed in their endeavors. Self-determination theory, developed by Deci and Ryan (1985), suggests that intrinsic motivation is more effective in driving long-term commitment to exercise and sports than extrinsic motivation, which involves rewards or punishments.

Cognitive processes also play a significant role in sports and exercise. Attention, perception, decision-making, and memory are all critical cognitive processes that can impact athletic performance. Athletes who can effectively manage their cognitive processes are more likely to perform at a high level consistently.

Emotions are another crucial psychological factor that can impact athletic performance. Athletes who are experiencing positive emotions such as joy, enthusiasm, and excitement are more likely to perform well than those who are experiencing negative emotions such as anxiety, fear, and frustration. Emotions also play a crucial role in sports and exercise. Positive emotions such as joy and excitement are associated with better performance, while negative emotions such as anxiety and fear can impair performance (Jones et al., 2002).

Biological Factors in Sports and Exercise

Biological factors also play a crucial role in sports and exercise performance. The cardiovascular system, respiratory system, and musculoskeletal system all have significant impacts on an athlete's physical abilities.

The cardiovascular system is responsible for the circulation of blood throughout the body, delivering oxygen and nutrients to the muscles. Regular exercise has been shown to improve cardiovascular health, resulting in increased endurance and overall physical fitness.

The respiratory system is responsible for the exchange of oxygen and carbon dioxide in the body. Athletes who have a more efficient respiratory system are better able to supply oxygen to the muscles during exercise, resulting in better performance.

The musculoskeletal system is responsible for movement and stability in the body. Regular exercise can improve the strength and flexibility of muscles, resulting in better athletic performance.

Biological factors such as the cardiovascular, respiratory, and musculoskeletal systems impact an athlete's physical abilities. The cardiovascular system delivers oxygen and nutrients to

the working muscles, while the respiratory system provides the oxygen needed for energy production. The musculoskeletal system provides the structural support needed for movement and is responsible for generating force. These systems work together to enable athletes to perform at their best. Additionally, genetics also plays a role in an athlete's physical abilities. Genetic variations can affect factors such as muscle fiber type, endurance capacity, and muscle strength (Woods et al., 2014).

The Interplay between Psychological and Biological Factors

The relationship between psychological and biological factors in sports and exercise is bidirectional. Psychological factors can influence biological processes, and biological processes can affect psychological factors. For example, stress and anxiety can activate the hypothalamic-pituitary-adrenal (HPA) axis, which can lead to the release of cortisol, a stress hormone. Cortisol can impact the cardiovascular system, increasing heart rate and blood pressure, which can impair athletic performance (Dhabhar, 2014). On the other hand, physiological factors such as oxygen delivery to the brain can impact psychological factors such as attention and decision-making. For example, when oxygen levels are low, cognitive functions such as decision-making and reaction time can be impaired (Nehlsen-Cannarella et al., 1997).

Psychobiological Approach to Sports and Exercise

The psychobiological approach to sports and exercise emphasizes the interplay between psychological and biological factors in athletic performance. Psychobiologists aim to identify the underlying biological processes that influence psychological factors and vice versa. For example, studies have shown that the neurotransmitter dopamine plays a role in motivation and reward processing and that genetic variations in dopamine receptors can affect motivation and athletic performance (Roos et al., 2015). Psychobiologists also use techniques such as neuroimaging to understand the brain mechanisms underlying psychological and biological factors in sports and exercise.

Conclusion

The interplay between psychological and biological factors is essential in sports and exercise. Psychological factors such as motivation, attention, and emotion influence performance, while biological factors such as the cardiovascular, respiratory, and musculoskeletal systems affect physical abilities. The psychobiological approach aims to understand the bidirectional relationship between these factors and their underlying mechanisms.

This knowledge can help coaches, athletes, and researchers develop strategies to optimize athletic performance and improve overall health and well-being.

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2. A Study of Emotional Intelligence among College Level Physical Education Students

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Abstract

Sports psychology is an important ingredient of sports training programmer and deals with the way in which various psychological states and trails influence sports performance. It is the application of psychology to the issues and problems in the field of sports as the problems of sports persons are quite unique. Different, subtle and complex. Therefore, the main purpose of sports psychology is to understand the behavior of an athlete, to modify it according to the demands of situation, and to optimize the benefits for elite performance and excellence. This study was performed to find the emotional intelligence of college level physical education students. To find out the results of 25 students of B.P.Ed one year and 25 students of B.P.E final year students were selected for the study and Anukool Hyde (Indore) Sanjot Pethe (Ahmedabad) Upinder Dhar (Indore) their own standardized test based on the Ten Factor of Emotional Intelligence scale (E.I.S)(**Self Awareness, Empathy, Self-Motivation, Emotional stability, Managing Relations, Integrity, Self Development, Value Orientation, Commitment, Altruistic Behavior**) was applied on students of Physical Education. After analysis of collected data; it is found that B.P.E final year students Emotional Intelligence found more than B.P.Ed one year students.

Keywords: Psychology, Emotional, Intelligence, EIS, Physical Education.

Introduction

It is well known that Greek philosophers are where psychology first emerged. Greek terms "Psycho" and "Logos" are the source of the word psychology. In this context, psyche refers to the soul or mind, and logos means to explain, to explain scientifically, or to examine. The science or study of the soul is psychology's exact definition. Ancient philosophers held that the soul was in charge of all mental processes, including learning, thinking, feeling, etc. The essence or true nature of an organism, the reason for and the basis of existence was thought to be

represented by the soul. Some philosophers attempted to describe psychology as a science of the mind since the relationship of the soul to the body and the function of the soul could not be explained.

Several of the aforementioned principles are part of modern psychology. Contemporary psychology is the study of "human and animal behavior and of the mental and psychological processes connected with the behavior," according to Decider to, Hokinson, and Jackson (1976). The term "psychology" refers to the study of human behavior, and the term "sports psychology" refers to a subset of psychology that examines how individuals and teams behave when participating in competitive sports. Sports psychology is the area of psychology that has a close relationship with player conduct. In order to increase performance on a qualitative level and keep some even under the pressure of competition, athletes must perform well both during practice and during competition. It is the research of how people behave. "Sports psychology" is the application of psychology ideas to sports and physical exercise at all levels of skill advancement, according to Browne and Mahoney.

Need and importance of Psychology

- i. Psychology aids in the prediction of students' performance, which might vary depending on psychological and biological aspects.
- ii. It is simple to learn about students' issues.
- iii. Understanding an student's conduct under pressure and stress is useful.
- iv. A variety of personality qualities, including aggression, tension feeling, and self-concept, can be measured with the aid of psychological assessments.
- v. Using inventory techniques can help identify the varied characteristics of athletes, non-athletes, and diverse team members.
- vi. Learning about the characteristics of coaches and teachers is helpful.
- vii. Evaluations of psychological problems are possible.

Statement of the Problem

The purpose of the study was to study of emotional intelligence among college level physical education students.

Objectives of the study

To find out the emotional intelligence among college level physical education students.

Hypothesis

It was hypothesized that there would be no significant difference of emotional intelligence of physical education students.

Delimitations

1. The study was conducted only the students of physical education of Ishwar Deshmukh College of Physical Education Nagpur.
2. The subjects were only male physical education students.

Limitations

1. The tests were administrated at different points of time consider in the availability of the subjects, their mood states as a result of winning or losing a particular match.
2. Questionnaire research has its limitations.

Significance of the Study

The findings of the present study would help the physical education teachers, sports trainers, administrators and the physical educationists in their professional which are discussed below:

Once the causes of the psychological problems in the physical education students are understood by the coach with the help of sports psychologist, various types of remedial techniques may be applied and help may be rendered to overcome the excessive emotional problems which affect their performance.

Methodology**Selection of Subject**

The present study was conducted on twenty five (25) students of B.P.Ed one year and twenty five (25) students of B.P.E final year. The sample representing the college of ISHWAR DESHMUKH COLLEGE OF PHYSICAL EDUCATION

Selection of Variables

At the present study as to find out the emotional intelligence of physical education students of ISHWAR DESHMUKH COLLEGE OF PHYSICAL EDUCATION

Selection of Test

Emotional Intelligence test method has been used for this study. Therefore, the students fills a questionnaire related to emotional Intelligence was tested.

For collecting data following tests were selected:

Emotional Intelligence Test (EIT)

Test Administration

Emotional Intelligence Test (EIT)

Purpose

The most common and in-depth test for emotional intelligence is the emotional intelligence test, whose objectives include keeping track of one's own and others' emotions, making distinctions between them, and using the information to inform one's decisions and behavior.

Procedure

- i. Total number of question papers: - emotional intelligence test consists of 34 questions in total.
- ii. Language of questions in the test:- Hindi, Marathi, English
- iii. Instructions about the test:- the students were given instruction about the appropriate questionnaire and were encourage to give the correct responses.

Scoring

EIT have five options in each question.

Options --Marks

Completely Agree-5, Agree-4, Uncertain-3, Disagree-2, Completely Disagree-1

Analysis and Interpretation of Data

The research scholar randomly selected twenty five (25) students of B.P.Ed One year and twenty five (25) students of B.P.E final year out of 100 students of Ishwar Deshmukh College of Physical Education.

Table No. 1 - Percentage of the Emotional Intelligence Test of Physical Education Students of Ishwar Deshmukh College of Physical Education

Components	B.P. Ed One year		B.P.E Final year		't' value	Significance level	Yes/No
	Average	Quantity Deviation	Average	Quantity Deviation			
Self-Awareness	15.52	3.20	16.2	1.83	0.93	0.05	No
Empathy	17.48	2.09	17.88	2.19	0.66	0.05	No
Inspiration	21.02	2.96	22.52	2.95	1.59	0.05	No
Emotional	13.92	1.76	14	2.05	0.14	0.05	No

stability							
Established relationship	15	2.54	14.2	1.93	1.33	0.05	No
Honesty	10.92	1.97	11.56	2.21	1.08	0.05	No
Self-Development	7.04	2.06	8.24	2.15	2.03	0.05	Yes
Valuableness	6.92	1.95	7.84	1.34	1.95	0.05	No
Commitment	7.44	1.65	7.76	1.27	0.78	0.05	No
Selfless vessel	7.72	1.70	7.64	1.32	0.18	0.05	No

Findings

- Addition of all the 10 components means value of B.P.Ed and B.P.E students. Find the mean value is 12.7 and 12.2 respectively.
- The difference between the mean is 0.4. This mean difference is not significant as the value of "t" ratio is 1.067.
- To be significant at 0.05 level, the value of t' ratio should be greater or equal to 2.02.

Discussion of Findings

The purpose of the study was to compare the emotional intelligence among college level physical education students of Ishwar Deshmukh College of Physical Education, Hanuman Nagar, Nagpur.

Table No. 1 Shows that there is no significant difference found in Emotional Intelligence between B.P.Ed and B.P.E students of Ishwar Deshmukh College of physical Education, Hanuman Nagar, Nagpur.

Discussion of Hypothesis

In the beginning it was hypothesized that there would be no significant difference Emotional Intelligence between B.P.Ed and B.P.E students. After the analysis it was revealed that

- There was no significant difference found in B.P.Ed and B.P.E students in Emotional Intelligence.

Hence the hypothesis is accepted.

Summary, Conclusions and Recommendations

After analysis of collected data; it is found that there is no significant difference found in the Emotional Intelligence test of B.P.Ed One year and B.P.E final students.

Conclusions

In the light of the results of this study, following conclusions were drawn:

- i. When Comparing B.P.Ed one year students and B.P.E final year students it was found that B.P.E final year Students score found higher than B.P.Ed one year.
- ii. B.P.E final year students Emotional Intelligence found more than B.P.Ed one year students.

Recommendations

Based on the findings mentioned earlier, the present investigator offers the following problems of further study;

- i. On the basis of findings of the study it is recommended that similar study may be conducted on students of other branches.
- ii. Similar study may be conducted on school students.
- iii. Similar study may be conducted on female students.
- iv. Similar study may also be conducted on sport skills and athletes playing those sports.
- v. Same type of study may be conducted on state and national level players.

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3. The Study of the Role of Motivation in Sports and Exercise

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Abstract

The ability to effectively use one's thoughts, feelings, and motivation to enhance performance is one of the essential skills in the context of sports and exercise. Motivation and Self-Regulation in Sports and Exercise explore the theories, research, and processes that underlie these self-regulatory and motivational processes. A deeper understanding of motivation and self-regulation has far-reaching implications, from helping individuals start an active lifestyle to seasoned athletes seeking a competitive edge. After exercising for a few days, the player's body itself compels the player to do it. Players cannot live without it. If this is not done, the whole body and joints start aching. Indeed, the body does not get as much rest even with medicine as it gives exercise. It can be understood only by doing this. For some, having the thirst for pushing yourself now and then is the feeling of a sense of success through sport. For others, it is the adrenaline that comes with competition and the great importance of joy and victory that comes when players belong to a team and win a game. For many it is a combination of the above that is the perfect mix to feel good in both mind and body. Various techniques of motivation are applied to the sportsperson, which can enable them to achieve a higher position in the field of sports. In this research paper, the role of motivation in sports and exercise has been studied.

Keywords: Sport, Exercise, Motivation, Player, Performance, Emotion, Mental Process

Introduction

Motivation is a mental process that initiates, maintains, or guides an athlete's behavior (training, approach to competition, adversity management, performance). High levels of motivation can benefit a player's game performance far more than the player can imagine; This is necessary whether the players are playing for fun or competition. It lifts the player, propels the player forward, and tells the player that players can achieve whatever they want. If players are motivated, players can do and achieve anything. There are two types of motivation in sports: intrinsic motivation and extrinsic motivation. Intrinsic motivation refers to athletic behavior that

is driven by intrinsic or personally meaningful rewards (opportunities to explore, learn and actualize potential). Intrinsically motivated athletes participate in sports for reasons such as the enjoyment of playing their sport, the challenge of competition and reaching new personal levels, improving skills, discovering potential, etc. Intrinsically motivated athletes typically focus on skill improvement and their growth as athletes.

Extrinsic motivation refers to athletic behavior geared toward earning extrinsic rewards or avoiding punishment. Extrinsically motivated athletes participate in sports for purposes such as external rewards (trophies, scholarships, media attention, praise) or to avoid negative consequences (being benched, falling out of favor with a coach, parental disapproval). Athletes who are driven by external factors concentrate on the outcomes of sporting events. Extrinsic incentives can help players if they are used properly. However, overuse or excessive focus on extrinsic rewards can demotivate the player and negatively affect the player's performance. When an athlete's primary motivation is extrinsic, athletes may feel greater amounts of competitive pressure and anxiety, compare themselves unfavorably to other athletes, devalue their self-worth, and deal with failure. Can be difficult, or view your play as more than "work".

To understand motivation, we need to understand the psychological structures that activate, direct, and regulate achievement behavior. Achievement goal theory is a social-cognitive theory that holds that the individual is an intentional, rational, goal-directed organism and that achievement goals moderate achievement beliefs and guide subsequent decision-making and behavior in achievement contexts. The purpose and significance of an individual's accomplishment behaviour must be taken into account, as well as the action's intended outcome, according to the argument. People give meaning to their achievement behavior through the goals they pursue. These goals represent the objectives of the achievement effort. Once adopted, achievement goals determine integrated patterns of beliefs that activate approach and avoidance strategies, different engagement levels, and different responses to achievement outcomes. Goals are essentially those that give an activity purpose or meaning. In other words, the achievement goal theory specifies types. It is quite surprising to realize that the new and revolutionary approaches to understanding motivation that some of us engaged in in the 1970s and 1980s have now become traditional and established theories of motivation. These new approaches were based on the cognitive revolution that swept psychology in the late 1970s and early 1980s. Now, these are mainstream theories. But they all have a deep cognitive basis for their concept. Some

are based purely on social cognitive norms and believe that thoughts, perceptions, and beliefs govern action, and some believe that we need to explain the onset of motivated behavior, even though there is a deeper understanding of these theories. There is a cognitive overlay. One hallmark of the contemporary study of motivation in sport and exercise is that we now have deeply thought-out scientists in this area.

Ideally, players want most of the player's motivation to be intrinsic. If players increase their intrinsic motivation levels, players will be better equipped to stay focused than they are in the present. Players will be able to maintain a consistent level of motivation throughout the season. Players will be more focused during practice. Players will experience less stress when mistakes are made. Players will be more confident and players will enjoy playing their game more. Therefore, players can greatly improve their performance and on-field experience by choosing more effective motivation strategies.

Research Methodology

The research paper has depended on secondary data.

Objective of Research

1. To study the role of motivation in sports.
2. To study the role of motivation in exercise.

The Role of Motivation in Sports and Exercise

Motivation is an essential part of sports performance. Self-motivation and extrinsic motivation together form the best kind of motivation and encourage goal setting and working hard to reach that goal. The first thing is that nobody is perfect. It is hard to perform to the best of your ability and challenge yourself now and then. Staying motivated for long periods can be difficult for anyone, especially if they are training alone and have no one to hold them accountable. This is just one example of when motivational coaches and sports motivational speakers can go further. The best thing about self-motivation is that players can carry it with them wherever they go and use it anytime. It is the inner voice of the athlete and one of the best things to prepare yourself for during training, during a sporting match, or before facing a challenge. Sometimes it is easier said than done, especially if the player is not seeing any apparent success or other areas of the player's life are interfering with the player's energy levels. Optimum self-motivation takes that leap forward.

The issues of motivation and inspiration are of central concerns of modern life in everyday life, we keep hearing about the importance of motivation and ways to foster it for desired results. Coaches and administrators within the sports and exercise communities who concern themselves with how to achieve better results. It is related to the issues of motivation. If we take our cues from everyday life, inspiration can be a provocation, such as the coaches' "motivational" tricolors in the locker room. Some believe that motivation is a measure of self-confidence, a winning attitude that propels people to perform better. Some believe that motivation is a simple matter of positive thinking. Some believe that it is a personal entity or genetically endowed, that either the player has it or the player does not. There is some merit to all of these beliefs and practices, but these simplistic notions do not begin to capture the complexity and richness of motivational matters.

Self-motivation is not always enough. What if the player's inner voice is not playing the ball? What if the player needed an external voice to awaken his inner voice? This is where extrinsic motivation is perfect to benefit a player's overall sports performance. Good coaching, an encouraging teammate, and taking some time to develop and re-energize your sports goals by attending conferences and listening to sports motivational speakers will boost a player's extrinsic motivation. This is bound to result in individual sporting success.

Appreciation is an essential, driving force for players to be the best they can be. If players are working hard, and doing a great job, but no one tells the player so, it will eventually bring the player down and reduce the player's motivation overall. When a man is doing a good job, he is praised, as well as challenged when necessary. It's a balancing act and it's important to make sure the player is getting lots of positive praise when they deserve it from their coaches or teammates, but also being told to step up their game or move on to the next level. Go to the level. The combination of praise and challenge is a huge advantage in motivating the athlete to improve his sports performance.

Goal setting is one of the most important techniques of motivation. If sportsmen do not set a goal, sportsmen cannot achieve a high position in their life. So, players should set goals according to their ability and potential. To keep their long-term goals on track, players must set proper medium-term goals as well as short-term goals. If a player wants to get a place in Olympic Games, he should also set medium-term goals and short-term goals to get a place in Asia Games and National Games respectively only then he can achieve a higher position in

sports. The targets should be monitored regularly. Coaches or physical educators should not be too rigid when setting goals for players.

A healthy sports environment plays an important role in motivating the players. A healthy sports environment includes a good climate, proper weather, humidity, and temperature, a smooth and clean sports field, good quality sports equipment, and other facilities. In such a healthy sports environment, players can train for sports and perform well in competition.

Praise or blame are effective factors of motivation if given at the right time and in the right amount. Sometimes, if the blame is given at an inappropriate time, it can be dangerous. The person can withdraw from that game or match. Praise is also good but too much praise can destroy the future of the players as sometimes the players become unreasonably confident due to which they do not play properly. Praise or blame should be as per the requirement. Due to individual differences, the effect of praise or blame on an individual's behavior varies. Therefore, the coach must know the behavior patterns of the players. Mature athletes are least concerned about praise.

Cash prizes, medals, and trophies are good incentives for the sportsman. It motivates the person. Every government tries hard to stand first in international competitions. Therefore, these governments provide cash prizes to sportspersons who win for their countries. It proves to be a good source of motivation for those players who are not financially strong. The award must be presented in front of all recipients.

Motivational music This is a good way to motivate players especially during training and before the competition, but it should be inspirational. This can be done during indoor training sessions. Fast music is appropriate during circuit training, and slower music during recovery periods. It is being used in indoor sports, especially in western countries. It increases output and is believed to reduce stress. For proper motivation, the coach should try to encourage a positive attitude among the players. The coach should put due emphasis on the mindset of the players that "players can do it". This means that players must think that they can achieve anything. They must remember that the feet and hands of champions are not made of gold; They are made of bones and flesh, so anyone can become a champion by working hard.

Conclusion

Meeting high standards in any sport requires some degree of focus and drive which can only be generated when the players are fully motivated. It is also important to learn to identify

any triggers that may hinder a player's motivation, such as cold weather or being too tired, and combat them before they bring the player down. Education is the key to maintaining an athlete's motivation for success in sports performance. The more players can develop their own, individual ways to lift themselves when they're feeling down, the more likely players are to succeed. One of the biggest misconceptions about the benefits of motivation for sports performance is thinking that athletes need the same type of motivation for all sports. It doesn't work that way though. For example, if the player is a tennis player, the type of motivation the player needs will be different from a basketball player. The difference is that the tennis player is playing singles for variable periods and relying on himself to get through the game and play to his best ability, while the basketball player is playing with a team and has to rely on himself as his main goal. using as. The degree of strategy required and battling elements such as weather is also contributing factor to the type of motivation required.

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4. To Examine the Relationship between Mental Toughness and Anxiety among Hockey Players

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Abstract

Performance has so far been influenced by psychological traits like mental toughness and anxiety during competition. The purpose of this study was to examine the relationship between the psychological predictors: of mental toughness and pre-competitive anxiety among hockey players. The participants included the Noce hockey players which includes both male and female players (N=22). The results of Pearson analyses revealed statistically significant relationships between overall mental toughness and somatic & cognitive anxiety. Hockey players demonstrated a high level of motivation followed by Attitude control, Positive energy, Self-confidence, and Visualization & Imagery control whereas there were the lowest signs reflected in Attention Control and Negative energy control. In terms of anxiety, hockey players demonstrated a higher level of Cognitive anxiety as compared to Somatic anxiety. This goes on to prove that mentally tougher athletes who are characterized by high levels of confidence, and motivation and who have good control over attention, negative energy, and visualization, approach difficulties as obstacles that must be overcome.

Keywords: Mental toughness, competitive Anxiety, hockey players.

Introduction

All athletes are a unique mix of strengths and shortcomings, and so are the demands of each game. Mental toughness and competitive anxiety are two related concepts that are often discussed in the context of sports and other competitive environments. Mental toughness is one of the essential parts of outcomes in sports. It alludes to the capacity to maintain focus, confidence, and determination even with difficulty. Athletes who have mental toughness can push through tough spots and perform at their best; they also hold a positive attitude while being

adaptable to changing circumstances and having the mental and emotional strength to persevere and achieve their goals. As the nature of participating in any sport is dynamic, for an athlete to sustain in the competitive realm the foundation needs to be impeccable.

The legendary cricketer Sachin Tendulkar is one Indian sportsman who personifies mental toughness. Tendulkar faced many difficulties throughout his career, including managing the pressure of representing his nation at a young age and managing the expectations of billions of fans. He did not, however, allow these challenges to stop him. However, he turned to them as inspiration to work harder and improve as an athlete. Tendulkar's mental toughness enabled him to break numerous benchmarks and become one of the greatest cricket players of all time. Another example is Indian badminton player PV Sindhu, who overcame many obstacles to become the best, including going out in major finals, but she never gave up and continued putting in the work. Her mental toughness enabled her to become the first Indian woman to earn an Olympic silver medal and one of the top badminton players in the world.

The given example serves as a reminder of the importance of mental toughness in any sport. Mental toughness is one of the key components for the success of a sports player. It helps athletes to overcome obstacles, maintain focus, and stay motivated. Through techniques and consistent training, it can be developed.

Anxiety

The feeling of anxiety is firmly connected with Han Selye's idea of stress, Selye (1983, p. 2) characterized pressure as the "nonspecific response to the body to any demand made upon it." When stimulated, the body is under pressure whether or not the reason is something negative like displeasure or something positive like satisfaction. Anxiety is a reaction to a stimulus that is intrinsic and/or situational which is considered to be a negative construct of arousal. Precompetitive state anxiety is competitive state anxiety that occurs before a competitive circumstance. When the demands of the sport surpass the athlete's perceived abilities, a competitive anxiety situation arises (Martens, Vealey, Burton, p.194). Researchers have examined that in comparison to athletes with lower levels of competitive anxiety, athletes with higher levels of anxiousness more often and intensely encounter conditions involving irrational fear or momentary physical and psychological tension (Amanendra et al., 2018). According to Martens (1977). Apprehensive athletes believe they don't have the cognitive abilities to cope with the difficulties the environment brings. They will feel more anxious and stressed out as a consequence of this disparity among both demands and cognitive capabilities.

Therefore, the objective of this research was to Examine the relationship between mental toughness and pre-competitive anxiety among elite hockey players.

Review of Literature

1. Kalim, M. S., & Peter, V. F. (2016) "Mental toughness among the hockey players at the state and national level". The purpose of the study was to find out the difference between the mental toughness of hockey players at the State and National level. 30 male hockey players from the senior national tournament and 30 male hockey players from the state Tournament. The study found that hockey players at state and national levels differ in mental toughness. The national-level of hockey players had better rebound ability, pressure tolerance, concentration, motivation, and confidence.
2. Kazim, N., & Veysel, T. (2019): "Mental Toughness of Students: Levels of Hockey Players' Mental Toughness of the Athletes". The purpose of the study was to determine the mental toughness levels of female student-athletes. 122 participants were given Mental Toughness Inventory at Sports developed by Sheard et al. (2009) & Sports Mental Toughness Questionnaire - SMTQ-14. The athletes participating in the study were found to be strong and durable. It was concluded that there was a meaningful relationship between mental toughness levels and age and also difficulty in leisure time variables.
3. Rasyid, N. M., Lee, J. L. F., Nadzalan, A. M., & Tengah, R. Y. (2019): "Relationship Between Mental Toughness, Sports Competition Anxiety and Performance among Women's Hockey Team". The present study aimed to investigate the relationship between mental toughness and competitive anxiety among athlete students. Participants were 140 athletes from secondary sports schools, and handball players, aged between 13 to 19 years. The correlation between Sports Mental Toughness scales and Sport Anxiety scales was positive, with $\beta = .843$ explaining 71% of the latent endogenous variance.
4. Rasyid Nelfianty Mohd et.al (2019): Relationship between Mental Toughness, Sports Competition Anxiety, and Performance among Women's Hockey Teams. The objective of this study was to examine the relationship between mental toughness, sports competition anxiety, and performance among women's hockey teams. The study showed that the players had a low level of mental toughness, moderate to high level of anxiety, and basic skills in hockey

Hypothesis

- Alternate Hypothesis (H1): there exists a significant relationship between Mental Toughness and State Sport Anxiety in NCOE Hockey players.

- Null Hypothesis (H0): there exists no significant relationship between Mental Toughness and State Sport Anxiety in NCOE Hockey players.

Methodology

Sample : The study aims to Examine the relationship between Mental toughness and Competitive state anxiety of hockey players. The sample was taken from 22 athletes (Hockey) belonging to the National Centre of Excellence (NCOE).

Data collection : The data was collected at the sports psychology department IG stadium (NCSSR Delhi), and the athletes performed the test on the specific questionnaire provided to them. The environment was provided in a manner that the athletes were in a comfortable position for an effective result.

Measures : Participants in the study were given a series of self-report questions. The following is a list of the questionnaires that were distributed.

1. **Competitive State Anxiety Inventory-2R:** Martens et al. (1990) develop the CSAI-2 to be a sport-specific measure of the competitive state anxiety subcomponents of somatic anxiety, cognitive anxiety and a related component Self-confidence. Thus CSAI-2 measures the separate components of state somatic anxiety and cognitive anxiety and self-confidence (Gant and Cox, 2004). Self –coSe be the opposite of cognitive anxiety and is another important factor in managing stress
2. **The Psychological Performance Inventory:** The PPI is a 42-item self-description Inventory with seven Likert-scored subscales of MT Self Confidence, Negative Energy Control, Attention Control, Visualization & Imagery Control, Motivation, Positive energy and Attitude Control.

Data Analysis : The focus of this research was to examine the relationship between mental toughness and competitive state anxiety among hockey players.to explore the dimensions of all the variables, the mean and Pearson correlation coefficient was used for correlation between variables. A p-value <0.05 was considered significant. Analyses were performed using SPSS 19 (IBM SPSS Statistics 19, SPSS inc., an IBM Co., Somers, NY

Results

Table 1 : Descriptive Statistics

Variable	Mean	Std. Deviation
Self Confidence	25.364	3.526
Negative Energy Control	20.864	3.4128
Attention Control	20.273	4.997
Visualisation & Imagery Control	26.045	4.0057

Motivation	27.136	2.9162
Positive Energy	26.182	2.4424
Attitude Control	26.591	3.2169
Somatic Anxiety	19.5168	5.91732
Cognitive Anxiety	21.5	6.0139
Self Confidence (CSAT)	34.455	6.8154

Table 2 : Correlation between Mental toughness and competitive state anxiety

Variable	Somatic Anxiety	Cognitive Anxiety
Self Confidence	-0.513	-0.397
	0.015*	0.067
Negative Energy Control	-0.598	-0.655
	0.003*	0.001*
Attention Control	-0.452	-0.444
	0.035*	0.039*
Visualisation & Imagery Control	-0.093	0.218
	0.680	0.329
Motivation	-0.428	0.039
	0.047*	0.862
Positive Energy	-0.529	-0.029
	0.011*	0.897
Attitude Control	-0.344	-0.026
	0.117	0.909

Discussion : The goal of this study was to examine the relationship between mental toughness and competitive State Anxiety among hockey players, taking into account the pertinent impact of psychological factors in the sports world. The study involved the use of quantitative assessment tools. The sample population for the study was 22 - National Centre of Excellence (NCOE) Hockey players. Thereafter, the data collection process took place with the help of questionnaires. Analysis took place via Pearson's correlation coefficient with the help of SPSS (statistical package for the social sciences).

The Null hypothesis (H₀) was rejected, indicating that *there is a significant relationship* between Competitive state Anxiety and Mental Toughness on five dimensions- Self Confidence, Negative Energy Control, Attention Control, Motivation, and Positive Energy to experience with

Somatic Anxiety and three dimensions - Negative energy control, Attention Control and Visualisation & Imagery Control to experience with Cognitive Anxiety. These results suggest that mental toughness plays an important role in managing anxiety levels in athletes.

The findings also suggest there is a significant relationship between self-confidence and somatic anxiety (-0.513). The findings demonstrate that somatic anxiety and self-confidence are negatively correlated, implying that when an athlete feels low self-confidence, then they could also experience high somatic anxiety, which expresses as jitteriness, physical tension, or a sinking stomach. In support of this, a study has been also seen as consistent with previous research by Hyunwoo Kang and Seyong Jang which suggested that an effective reduction in anxiety would improve players' confidence and thereby improve their performance. This study found a considerable detrimental impact of competition anxiety on players' confidence (Kang & Jang, 2018). This highlights the importance of developing strategies to manage anxiety in order to improve confidence and overall performance. This study found a considerable detrimental impact of competition anxiety on players' confidence (Kang & Jang, 2018). Before a game, athletes who are more anxious and negative in their thoughts will perform worse since they may be less focused and confident in their abilities. The study provides strong support for our finding of Self Confidence.

Similarly, a significant relationship was found between Motivation and Somatic Anxiety (-0.428). where motivation is found to be negatively related to Somatic anxiety. Similarly, motivation and somatic anxiety have been found to be significantly correlated. (-0.428). According to a previous study titled "Impact of motivation on anxiety and tactical knowledge of young soccer players," motivation had a major impact on how anxious a player was. It depicts how intense anxiety can prevent people from concentrating on important tasks, while low levels of anxiety may be a sign of low motivation and the need for a stimulating environment. (Borges et al., 2018). This demonstrates the significance of including this variable in training plans.

Given previous studies suggesting that visualization can be a useful coping mechanism for anxiety (Parnabas and Mahmood, 2012), this absence of a significant relationship between visualization, imagery control, and anxiety was somewhat unexpected. . The previous findings additionally demonstrated that visualization can reduce anxiety and improve an athlete's athletic ability.

Furthermore, a significant relationship was found between Positive energy and Anxiety (-0.529). Positive energy is negatively related to Somatic anxiety which translates that the higher the positive energy, the lesser will be the anxiety level. A significant relationship was also found between Attention Control and Anxiety (-0.452). Attention control is negatively related to both

somatic and cognitive anxiety. In support of this, a study suggested that there exists an inverse relation between lower attentional control level and the somatic anxiety dimension of state anxiety (Lourido, 2019). According to findings, individuals that are anxious are more susceptible to the effects of distracting stimuli and are more likely to become distracted. Our results are consistent with the Attentional Control and other investigations, where it was discovered that anxiety experimentally interfered with attentional processing.

Recommendations and Conclusion

This study sought to determine whether and how much mental toughness contributes to the causes of athletes' anxiety states. The findings revealed statistically significant relationships between overall mental toughness and somatic & cognitive anxiety. Hockey players demonstrated a high level of motivation followed by Attitude control, Positive energy, Self-confidence and Visualization & Imagery control whereas there were lowest signs reflected in Attention Control and Negative energy control. In terms of anxiety, hockey players demonstrated a higher level of Cognitive anxiety as compared to Somatic anxiety. This goes on to prove that mentally tougher athletes who are characterized by high levels of confidence and motivation and who have good control over attention, negative energy and visualization, they approach difficulties as obstacles that must be overcome. Such a cognitive and motivating strategy can explain why mentally tough athletes have lesser anxiety. On the other hand, cognitive and somatic anxiety are more prominent in athletes who lack self-confidence, are impulsive, fear demanding and difficult responsibilities, avoid them out of fear of failure, lack willpower, and wrongly control their emotions and behavior (Zubic,2021).

In conclusion, this study provides valuable insights into the relationship between State Sport Anxiety and Mental Toughness on several dimensions. The results suggest that mental toughness training may be an effective way to manage anxiety levels and improve athletic performance. Further research is needed to explore the effectiveness of different mental toughness training strategies and their impact on anxiety and performance in different athletic contexts.

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5. A Comparative Study on Locus of Control among Participation in Different Sports Categories

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Abstract

The aim of this study was to compare locus of control among team sports, combat sports and individual sports participants. A survey study was conducted among hundred and fifty players (50 team sports, 50 combat sports & 50 individual sports) participated in the inter-collegiate tournaments organised by Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, India. The selected players age ranged between 18 to 24 years. Locus of control scale developed by Rotter (1982) was administrated among the players. Independent t-test and Sheffi Post-test was applied with the help of 'R'-stat software to find out the significance differences. For testing hypothesis, the level of significance was set at 0.05. Results of the study revealed that there was significant differences exist among plaers participated in different types of sports.

Key words: Locus of control, Team sports, Combat sports and Individual sport.

Introduction

Locus of control defined as a person's belief about what causes good are bad results in his or her life, either in general or in a specific such as health or academic. The study aims compare locus of control among team sports, combat sports and individual sports participants represented in the inter-collegiate tournaments organised by Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu during the academic year 2022-23. Several studies have demonstrated the impact of psychological factors on sports performance (Crespo, 2002). Locus of control has been associated with many different personality and situational variables.

The locus of control construct, originally derived from social learning theory may be a useful concept in testing sports participants of different sports. Social learning theory contains several assumptions, Rotter (1954) described that locus of control is the behavior of individuals in a specific situation is determined by the reinforcements they receive.

In psychology, the phrase "locus of control" refers to an individual's perception of what drives positive or negative outcomes in his or her life, whether in general or in a particular domain like health or academics. The generalized expectation of internal or external control reinforcement. The person under internal control thinks that his or her own abilities or efforts are responsible for the reinforcement. The person who is under external influence thinks that reinforcement is due to fate, chance, or some other strong outside factor.

According to Mali (2013), the ability to deal with uncertainty is the primary focus of locus of control. Those with lower levels of tolerance tend to resist change, whereas those with higher levels of tolerance adapt more easily. Investigation is to provide important information with regards to locus of control among the players of team sports, combat sports and individual sports which will enable sport performers to cope successfully with negative affective states and to perform to their full capabilities.

Statement of the problem

The purpose of the study was to compare the Locus of Control among Team sports, combat sports and Individual Sports participants.

Research questions

Is there any significant differences in Locus of control with respect to types of sports?

Methodology

Selection of Subjects

To achieve the purpose a survey study was conducted among hundred and fifty players (50 team sports, 50 combat sports and 50 individual sports) participated in the inter-collegiate tournaments organised by Manonmaniam Sundaranr University, Tirunelveli Tamilnadu during the academic year 2022-23. All the subjects were age ranged between 18 to 24 years.

Tool used

To achieve the purpose of the study Locus of control scale developed by Rotter, (1982) was used to collect the data.

Analysis and Interpretation of Data

The collected data was statistically analyzed using R-stat. Independent 'T' test used to test the hypothesis. In all cases 0.05 level of significant was fixed to test the hypothesis. The mean and standard deviation values of Locus of control among team sports, combat sports and individual sports are presented in the below table.

Table - I

Mean ± Standard Deviation			Source of Variance	Sum of Square	Df	Means Square	F-ratio
Team	Combat	Individual					51.237*
19.94 ± 3.803	26.02 ± 3.645	19.26 ± 3.579	Between Groups	1385.440	2	692.720	
			Within Groups	1987.420	147	13.520	

(Note=*The mean difference is significant at the 0.05 level)

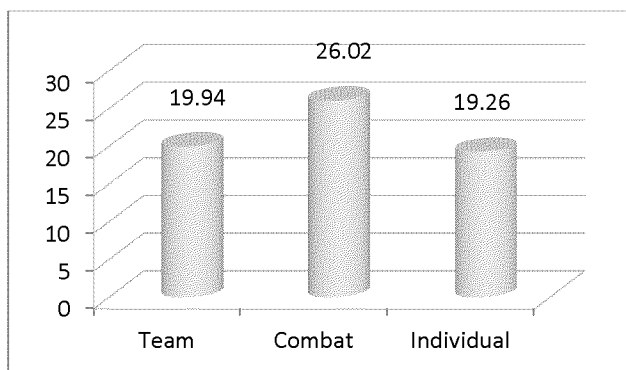
The obtained F-ratio value is 51.237*, which is higher than the table value of 3.09 with df 2 and 147 required for significance at .05 level. Since the obtained value of F-ratio is higher than the table value, it indicates that there was significant difference exist among the mean values of team sports, combat sports and individual sports on locus of control. To find out which of the three paired means had a significant difference, the Scheffe’s post-hoc test was applied and the results are presented in Table II.

Table - II Scheffe post-hoc value on Locus of control among Team sports, Combat sports and Individual sports

Mean Values			Mean Difference	Confidence Interval
Team Sports	Combat Sports	Individual Sports	-	-
19.94	26.02	-	-6.080*	1.83
19.94	-	19.26	.680	
-	26.02	19.26	-6.760*	

(Note=*The mean difference is significant at the 0.05 level)

Table II shows that the paired mean differences on locus of control between team sports and combat sports; team sports and individual sports; and combat sports and individual sports on locus of control are 19.94, 26.02, and 19.26 which are higher than the confidential interval at .05 level of significance. It shows that there was a significant difference exist among all the three paired means on locus of control.



Discussion and Conclusions

The result of the study indicates that there was no significant difference in Locus of control between Team sports and Individual sports players participated in the inter-collegiate tournaments organised by Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu. A simlilar study was conducted by Baljinder Singh (2010) on achievement motivation and locus of control of university level individual and team sport players concluded that, Significance between group differences were found among the players of individual and team sports on the variable achievement motivation whereas no significance between group differences were found among the players of individual and team sports on the variable locus of control.

On the basis of findings of no significant difference on locus of control found in Team and individual sports interuniversity participants of Manonmaniam Sundaranar University. ($t = .620, p > 0.05$).

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6. Focus Group Discussion Research Report on Social Media Addiction among College Students

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Abstract

This article reports on a study that used focus groups to investigate social media addiction among college students. Four focus groups were conducted, each with a diverse sample of participants, to explore their experiences and perceptions of social media addiction and identify key factors contributing to it. The focus groups were conducted using a structured script based on a questionnaire that included ten questions, focusing on participants' social media use, motivations, frequency, and duration of use, attempts to cut back, negative consequences, triggers, and possible alternatives to social media use. The transcripts of the discussions were analysed using thematic analysis to identify key themes and patterns. The results indicate that social media addiction is a complex phenomenon with multiple contributing factors. The key factors contributing to social media addiction among college students were identified as boredom, fear of missing out, anxiety, indecisiveness and loneliness, low self-esteem, social comparison, escapism, and fear of missing out (FOMO). These findings suggest that interventions aimed at reducing social media addiction among college students should focus on addressing these underlying psychological and social factors.

Key Words: Focus group, Social Media Addiction, Themes, Factors.

1. Introduction

Social media addiction has become a growing concern, particularly among college students (Andreassen et al., 2017). Kandell (1998) stated that college students compared to any other segment of society appear more vulnerable to developing dependence on the Internet, probably because college students tend to have a strong inner force to develop a sense of identity and develop meaningful and intimate relationships. Social media addiction can have different meanings and effects for different individuals, and focus group sessions can help researchers capture this diversity of perspectives. By bringing together individuals with different experiences

and backgrounds, focus groups can generate a range of viewpoints and ideas (Merton et al., 1990; Krueger and Casey, 2015). Morgan (1996) stated, "Focus groups can generate a rich and diverse set of perspectives on a given topic, providing a more comprehensive understanding of the phenomena being studied" (p. 79). To investigate the causes of this addiction, four focus groups were conducted among college students in different locations at different times. The aim was to explore the participants' experiences and perceptions of social media addiction and to identify key factors contributing to it.

2. Methodology

To ensure a diverse sample, four focus groups were conducted, each with 9, 10, 8, and 11 participants, respectively. The groups were conducted at different locations and times and lasted approximately 90 minutes each. Participants were recruited through convenience sampling from local colleges, based on specific selection criteria (age range of 17-24, regular social media use, and willingness to participate in a focus group discussion). Before the session, participants were asked to sign a consent form. The moderator asked each participant to introduce themselves. This helped to establish a rapport among the group members and to create a relaxed atmosphere for the discussion. The moderator established ground rules and introduced the purpose of the focus group before asking each of the 10 questions from the questionnaire in turn. He followed a structured script based on the questionnaire. Participants were encouraged to provide detailed responses, as the questions were designed to explore their experiences with social media addiction and identify contributing factors. During the session, the moderator encouraged active participation and discussion among the participants and ensured that all voices were heard, and opinions respected. The questions were formulated based on a literature review and expert opinions, focusing on participants' social media use, motivations, frequency, and duration of use, attempts to cut back, negative consequences, triggers, and possible alternatives to social media use.

The questions for the focus group discussions are as follows:

1. What motivates you to use social media, and how often do you use it? Do you find yourself using it more than you intend to?
2. Do you feel like social media has become a habit for you? If so, what led to this habit?
3. Can you describe how social media makes you feel? Does it have a positive or negative impact on your mental health and well-being? Have you ever experienced negative consequences from your social media use, such as missing out on college, or neglecting personal responsibilities or relationships?
4. What specific features or aspects of social media do you find most addictive, and why?

5. Have you ever tried to cut back on your social media use? If so, why did you do it and what was the result?
6. What strategies have you used to limit your social media use, and have they been effective?
7. How has social media impacted your relationships with family and friends, both online and offline?
8. Do you think social media addiction is a real problem? Why or why not?
9. What do you think are the underlying psychological and social factors that contribute to social media addiction? Do you think certain personality traits make individuals more susceptible to social media addiction? If so, which ones?
10. Do you feel like social media creates unrealistic expectations and standards for how you should look, behave, and live your life?

3. Data Analysis

The focus group discussions were recorded with the participants' consent and transcribed for analysis. The transcripts were analysed using thematic analysis. This involved identifying and categorizing the common key themes and patterns that emerged from the data. The analysis was conducted inductively, with the themes being allowed to emerge from the data rather than being imposed on it.

4. Results

The focus group discussions yielded several key insights into the causes of social media addiction among college students. The following factors were identified as the main contributors to social media addiction among college students:

1. Boredom

Many participants reported that they turned to social media out of boredom, particularly when they had nothing else to do. Social media provided a means of entertainment and distraction, making it an appealing way to pass the time.

2. Fear of missing out

Many participants reported that they used social media to stay connected with their friends and to keep up with what was happening in their social circle. They felt that if they didn't check social media regularly, they might miss out on important events or social opportunities.

3. Anxiety

Finally, some participants reported that they used social media as a coping mechanism for anxiety. Social media provided a means of distraction and helped to alleviate feelings of anxiety and stress.

4. Indecisiveness and loneliness

Some participants reported that they turned to social media when they were feeling indecisive or lonely. Social media provided a means of escape and a way to connect with others, even if only superficially.

5. Low self-esteem

Several participants reported that they used social media to boost their self-esteem by seeking validation from others in the form of likes and comments. This was particularly true for those who felt insecure about their appearance or social status.

6. Social comparison

The participants reported that they often use social media to compare themselves to others, especially in terms of physical appearance, achievements, and lifestyle. They reported feeling inadequate and anxious when they see others living seemingly perfect lives, which can lead to increased social media use.

7. Escapism

The participants reported that they often use social media as a way to pass the time or escape from stressors in their lives. They reported feeling bored or stressed when they are not using social media, which can lead to increased social media use.

8. Fear of missing out (FOMO)

The participants reported that they often use social media to stay up-to-date on events and activities that they may not have been invited to. They reported feeling anxious or left out when they see others enjoying themselves without them, which can lead to increased social media use.

9. Addiction to notifications

The participants reported that they often feel compelled to check their social media notifications, even when they are not actively using social media. They reported feeling anxious or uneasy when they are unable to access their notifications, which can lead to increased social media use.

10. Social Connection

Many participants reported using social media to connect with friends and family members, and to keep up with their social lives. Participants reported feeling a sense of belonging and connectedness through social media, which contributed to their addiction.

11. Emotional Regulation

Participants reported using social media to regulate their emotions, such as reducing boredom, loneliness, and stress. Many participants reported feeling a sense of relief or distraction when using social media, which contributed to their addiction.

12. Lack of Control

Participants reported feeling a lack of control over their social media use, such as being unable to stop using social media or feeling compelled to check notifications. This lack of control was a significant contributor to their addiction.

13. Peer pressure

Participants pointed out peer pressure to be a powerful force that contributes to the development and maintenance of social media addiction. When an individual's peers are heavily involved in social media use, they may pressure their friends to participate in the same activities. This pressure can create a sense of obligation or social pressure to conform, which can lead to increased social media use and addiction.

14. Social norms

Participants observed that social norms can contribute to addiction by creating a sense of normalcy around heavy social media use. In some social groups or communities, there may be a strong expectation that individuals stay active on social media in order to keep up with friends, family members, or colleagues. This can create a sense of pressure to check social media regularly and respond to messages or notifications, even if it interferes with other activities or responsibilities.

The results of the focus group session provided valuable insights into the causes and effects of social media addiction among college students. Participants identified a range of individual factors that can contribute to social media addiction, including boredom, loneliness, anxiety, a fear of missing out and indecisiveness. They also identified external factors, such as peer pressure and social norms, that can influence social media use.

Participants reported spending an average of 2-3 hours per day on social media, with some reporting using social media for up to 6 hours per day. They also reported experiencing negative consequences as a result of their social media use, such as decreased productivity and poor academic performance.

Participants reported attempting to cut back on their social media use, but many found it difficult to do so. Some reported feeling anxious or stressed when unable to access social media, while others reported feeling like they were using social media out of habit rather than necessity.

Participants recommended a range of strategies to address social media addiction, including increasing awareness of the risks and negative consequences of social media use, promoting alternative forms of entertainment and socialization, and providing education and resources to help individuals develop healthy habits around social media use.

5. Discussion

The findings of this study support previous research that suggests social media addiction is a growing concern, particularly among college students (Andreassen et al., 2017). The study identified several key factors contributing to social media addiction among college students, including boredom, fear of missing out, anxiety, indecisiveness and loneliness, low self-esteem, social comparison, escapism, and addiction to novelty.

Boredom was identified as one of the most common reasons for social media addiction. Many participants reported that they used social media as a means of entertainment and distraction when they had nothing else to do. This finding is consistent with previous research that suggests that social media use increases when individuals are bored or have nothing else to occupy their time (Verduyn et al., 2015).

Fear of missing out (FOMO) was another key factor contributing to social media addiction among college students. Participants reported that they used social media to stay connected with their friends and to keep up with what was happening in their social circle. They felt that if they didn't check social media regularly, they might miss out on important events or social opportunities. This finding is consistent with previous research that suggests that FOMO is a key driver of social media use (Przybylski et al., 2013).

Anxiety was identified as another key factor contributing to social media addiction. Participants reported that they used social media as a coping mechanism for anxiety, as social media provided a means of distraction and helped to alleviate feelings of anxiety and stress. This finding is consistent with previous research that suggests that social media use can have both positive and negative effects on mental health, depending on the context and the individual (Kross et al., 2013).

Social comparison was also identified as a key factor contributing to social media addiction among college students. Participants reported that they often use social media to compare themselves to others, especially in terms of physical appearance, achievements, and lifestyle. They reported feeling inadequate and anxious when they see others living seemingly perfect lives, which can lead to increased social media use. This finding is consistent with previous research that suggests that social comparison on social media can lead to negative outcomes, such as decreased self-esteem and increased social anxiety (Vogel et al., 2014).

Finally, addiction to novelty was identified as a key factor contributing to social media addiction among college students. Participants reported that they often use social media to seek out new and novel experiences, such as new content or new connections. They reported feeling a sense of excitement and anticipation when they discover something new on social media, which

can lead to increased social media use. This finding is consistent with previous research that suggests that social media use can be driven by a desire for novelty and stimulation (Lin et al., 2016).

7. Limitations

Limitations of the study include the use of convenience sampling, which may limit the generalizability of the findings, as well as the reliance on self-reported data, which may be subject to bias and inaccuracy. Future research could address these limitations by using more representative samples and objective measures of social media use and addiction.

8. Conclusion

The focus group sessions were successful in generating a rich and nuanced discussion on the causes of social media addiction among college students. All the sessions provided valuable insights into social media addiction among college students, highlighting the complex interplay of individual and external factors that contribute to this issue. The recommendations provided by the participants offer potential solutions to this problem, and further research is needed to explore these strategies in more depth. Overall, the focus group sessions were successful in achieving their goals and provided valuable insights that can inform future efforts to address social media addiction.

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7. Social Psychology of Sports - A Review

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Abstract

The outcome of a fight depends more on how effective the weapon is in the hands of the combatant, how firm and courageous is his determination to win. This means that the physical science of fighting is different and the science of preparing the mind of soldiers for it is different. Health is not merely the absence of disease, but a state of physical, mental, emotional, social, intellectual, and spiritual, well-being of every individual. A strong or healthy body is not a gross body, but many aspects of personality are associated with it. Every person who enters a competition has the desire to win. Prepared diligently, but still somewhere in the corner of a player's mind, there is an invisible worry, mental pressure to be the best player of the opposite team. It is human nature. That's why the psychology of sports is an important part. In the present paper, the psychological side of the players and the importance of sports psychological support have been discussed.

Keyword: Sports, psychology, physical, mental.

Preface

Sport psychology is a relatively new discipline within psychology. In 1920, Carl Diem established the world's first sports psychology laboratory at the Deutsche Sport Hochschule in Berlin, Germany. In AD 1925, two more sport psychology laboratories were established – one in Finland by Ege Puni with the L Zone and one by Coleman Griffiths at the University of Illinois, who began offering the first courses in sport psychology in 1923 and later published 'The Psychology of Sport' Published the first book on the subject, Coaching (1926). Unfortunately, Griffith's laboratory closed in 1932 due to lack of funds. After the laboratory was closed, little research was done on sports psychology until the resurgence of the sport during the 1960s. Ferruccio Antoni founded the International Society of Sport Psychology (ISSP) in 1965, and by the 1970s sport psychology was included in university curricula in North America. The first academic journal, the International Journal of Sport Psychology, was launched in 1970, followed by the Journal of Sports Psychology in 1979. Sport psychology became the subject of more rigorous scientific attention in the 1980s as researchers began to explore how sport psychology

could be used to improve athletic performance as well as psychological well-being. Although study and competition are the reasons for not giving importance to sports, lack of motivation is also a reason to improve career in the field of sports. Motivation is an important factor behind the behavior and actions of any individual. Guilford, a psychologist, stated that a person's motivation to participate in sports depends on the individual's unique characteristics and abilities. An individual's interest in exercise and participation in sports is directly related to certain personality traits. There is a vast difference in personality between people who participate in sports and exercise and those who do not. The behavior seen on the playground is characteristic because it is a habit formed by doing the same action over and over again. Since this habit or attitude is related to the body and mind, the person involved in sports and exercise is also seen to be punctual and regular in terms of diet, sleep and routine. Team sports require social intelligence, thinking and logic. Therefore, it continues to be practiced among those who participate in sports. The reason for the increased confidence is that a strong and healthy body is self-satisfying because of the regularity of exercise. That is, with self-esteem or self-identity comes self-confidence. Players participating in any team sport are extroverted. Courage to take control of external circumstances. Many parents try to bring up all these qualities in their children. But they do not necessarily come in the same way. This is a very important measure for him. That's why it is very important that children should be allowed to play freely. The main thing is that the power to concentrate on any one task increases. Concentration improves further with practice. If children are allowed to play freely, they will discover outdoor games of their choice. Then there is no problem if coaching is also done for that game. But let's not burden them with competition! The desire to win while playing will automatically come in them and the other qualities you want will also come.

Examples of Sports Psychology

Correct state of mind

In addition to technical and tactical preparation during competition, it is important to find mental preparation, i.e. the optimal state of control.

Reinforcement

Reinforcement at the right time is essential for boosting the confidence of players and is one of the main principles of psychological, technical and tactical training.

Objective

Sports psychologists help athletes and coaches benefit from idealization. Realistic goals and actionable steps to achieve them can boost an athlete's confidence, maintain motivation and help prevent self-esteem issues.

Group Cohesion

Group psychology promotes a team environment focused on a common goal. An integrated format is more popular than an internally divided team.

Self-coaching

Self-coaching in sports can be used to learn new skills, increase motivation, get rid of negative habits, and initiate action. Keep trying and stay focused for long periods of time in extreme conditions.

Importance of sports psychology

The duties and tasks of a sports psychologist can become very complex if you are not trained to handle complex tasks. Therefore, a competitive team sports coach must also have expertise in mental health. It is also a category of sports psychology. The value of a sports psychologist has been demonstrated in working with high level sports teams. Thus, they have become almost mandatory in any sport or discipline. In football, which is played in many countries, clubs and national teams from different continents compete annually to improve performance. Not only in the field of sports but also in various intellectual fields like communication Research and development of team management and creativity. The knowledge required to select the right people for each role on the team is as important as it is complex. Opinions, evaluations, criteria and decisions should be unanimous, preferably between the Director and all contract employees. Sports psychologists must be able to pinpoint the nuances of an athlete's mood, fear, and motivation at each moment of competition.

Sports Psychology Subcategory

- Empirical Science
- Educational Psychology
- Developmental Play Psychology
- Clinical Psychology

Experiential Science

In this the ups and downs of the psychology of the player. The areas of the player's performance prove that they are scrutinized.

Educational Sports Psychology

In this the field of players, the field of training and the teachers To educate so that good sportsmanship does not result from the team press.

Clinical Sports Psychology

For Improving Sportsmanship and Performance protecting the player's field from problems scientifically and solving those problems do not get a good performance by solving the problem.

Developmental Sports Psychology

This psychology focuses on those players the various reactions that are focused are included in the experience of the region.

How do sports psychologists work?

Since each person is different, it is difficult to establish a standard procedure, but some methods and tools are likely to be used. With the help of a psychologist, the athlete is evaluated and diagnosed to identify areas that need work. This can include changes in population and other factors. Based on this, we create an ideal picture of what kind of partnership should be involved and suggest the means that can be used. Here are some of them. At first glance, it may seem simple, but it is not. It is based on self-knowledge. How do you react to certain situations? and reason. When do you feel safe and when do you feel less safe, what distracts you, and what strategies you can use to solve problems. Just as it is important not to lose concentration in critical moments, it is also important to calm the body and mind. So that stress does not increase and problems like injury, insomnia and lack of concentration do not arise.

Importance of social motivations

Social motivation is an important factor in human behavior. Most of man's efforts are due to his desire to gain the recognition and approval of others, his desire to stand out, and his desire to achieve "status", to avoid criticism. Social motivations sometimes overlap with those of others, but at other times they acquire an independent character. Some arise as an imposition of society, and some as a need of the individual in his relationship with the social environment. In sports, social motivations have a singular importance. Furthermore, an athlete's motivations cannot be analyzed without a social context. There is a close relationship between success and motivation. This, in turn, affects the duration of the sports career. Inspiration contributes to success and generates new driving forces.

Research in Sports Psychology

Stress and anxiety are inherent in playing any competitive sport. Sports psychology teaches how to handle difficult emotions in those strategic moments. Improving the quality of sport is highly dependent on mental health as sport is highly mental. Physical movements are also altered or distorted due to mental stress or anxiety and this affects the performance of the athlete. Many players don't have much enthusiasm or energy at all which makes mistakes in

strategic moments. A sports psychologist plays a vital role in avoiding all these and many other mistakes. People in sports-related professions have certain personality traits. Their goals and interests often differ. Athletes have a competitive nature. He always tries to enhance his talent. He is characterized by a detailed analysis of various sports disciplines. in physical and physiological nature. We appreciate the development of these initiatives. Some sports performance experts find it necessary to analyze them. To do this, it is necessary to choose the most efficient methods, combining them with the work performed by the plug in. The goal is to determine who should be responsible according to the specifications of the equipment. However, research in sport psychology focuses on studies that describe the condition of individuals in sport group's impaired motor or cognitive function. The factors describing an athlete's condition are relevant to any other discipline. Furthermore, each attribute of the subject explains the value of all other attributes.

Conclusion

The word psychology is related to human behavior and sports psychology is related to the behavior and behavior of players. Sports psychology is that branch of psychology that is related to the behavior of the player on the sports field, which improves the performance of the player. In this, the mental state of the player is emphasized. Behind optimal sporting performance lies the effective and professional work of a sports psychologist, who plays a vital role in improving self-esteem and mental well-being. We must continue to support the sector so that it can develop and build cohesive and strong sports teams that are a source of collective well-being at both elite and amateur levels.

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8. Development and Policies in Women's Sports

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Abstract

This article attempts to analyze the picture of women's empowerment in India through several signs and symptoms based entirely on data from secondary sources. Consider the well-known fact that women in India are particularly incompetent and have a much worse reputation than men, despite many government efforts. The women in sports movement is becoming a global phenomenon; and rightly so, because women make up half of the world's population. Change was slow, but many long-standing traditions were preserved. However, we believe that the status quo may be overrated to challenge at a disruptive and systemic level. There is a gender gap in access to education and work. Household electricity generation and women's freedom of movement vary greatly depending on their age, education and reputation. It has been observed that the image of unequal gender norms through the behavior of women is despite the fact that it prevails in the society. More than half of women do not forget their partner's blows for one reason or another. Fewer women have the final say on what to wear. Control over financial gain increases with age, education and proximity to the apartment. Women's exposure to the media is also much lower than men's. Rural women are more vulnerable to domestic violence than urban women.

Introduction

There is also a large gender gap in political participation. The principle of gender equality is enshrined in the Preamble, Fundamental Rights, Fundamental Duties and Directive Principles of the Constitution of India. The Constitution is now not content to grant equality to girls, but empowers the state to implement wonderful measures for girls. Our laws, development policies, plans and programs aim at the development of girls in various fields within the framework of a democratic country. Since the Fifth Five-Year Plan (197 -1978), there has been a significant shift from welfare to development in the approach to girls' issues. In extreme years, the empowerment of girls has been recognized because there is a crucial issue in recognizing the empowerment of girls. The National Commission for Women was created by a law passed by parliament in 1990 to protect the rights of girls and prison rights. The Seventy 3rd and 70th Amendments to the Constitution of India (1993) provided for reservation of seats

for girls in Panchayats and Local Governments, laying a strong foundation for their participation on a priority basis. by levels. In maximalist societies, participation in sports activities was mostly male. Supporters of girls' sports activities have confirmed in recent years that girls are also ready for this and have their place in the world of sports. Ever since the first female ballplayer changed bases at Vassar College in 1866, athletes have taken their sports history to heart (Sandoz & Winans, 1999). Even without strong achievements, the girls had to show that they are ready for sports activities. Today we see a remarkable number of girls who now participate not in minor sports played in the best way, but also in sports that require high quality professionalism and skill. Increasing the quality of girls' athletic performance can be selected by taking advantage of the slow but steady growth of girls among elite Olympians (Bennette, Howell, & Simri, 1983). But when the girls started knocking on the door of the sports world, they faced a lot of opposition. Since the popularity of girls in the game no longer shows a uniform, upward trend in record times, it has gone through several peaks and valleys for a long time - for example, in women's sports there are more famous heroines and cases where there are girls. who are considered unworthy mothers (Lutter & Jaffee, 1996). Over the years, maximum goals for girls' participation in sports activities have been subjective in nature, often based on the sentimental thesis that girls are naturally delicate and delicate in appearance (Klafs & Lyon, 1978).

Women status in India

As some distance as India is concerned, the precept of gender equality is enshrined within the Constitution and unearths an area within the Preamble, Fundamental Rights, Fundamental Duties and Directive Principles. The Constitution now no longer handiest presents equality to woman however additionally empowers the States to undertake measures of wonderful discrimination in favour of woman. Historically the fame of Indian woman has been stimulated via way of means of their past. There is proof to expose that woman within the Vedic age were given maximum venerated positions within the society (Seth, 2001). They had the proper to training and had been loose to stay single and dedicate their complete existence to the pursuit of understanding and self realization. The married woman done all of the works and sacrifices similarly with their husbands. They had been knowledgeable in numerous disciplines of understanding together with astrology, geography, veterinary sciences or even in martial arts. There had been times of woman taking element in wars and fights. They had been surprisingly reputable inside and out of doors home. Gradually because of numerous socio-political changes, in particular at some stage in the center age, the superb fame of woman declined. The urge for equality at the a part of Indian woman commenced getting momentum at

some stage in the colonial times. Noted social reformers and countrywide leaders like Raja Ram Mohan Roy, Annie Besant, Sorojini Naidu and Ishwar Chandra Vidyasagar made selfless efforts to create attention amongst woman approximately their fame and had been pretty a success in putting off numerous social evils together with sati pratha, baby marriage, and polygamy. They additionally endorsed widow remarriage and woman training. The reformers had been a success in growing a base for improvement of woman and theirs try for equality. In route of time Indian society were given converted from conventional to a current one. Consequently woman have become extra liberal and privy to numerous methods of existence. Since they may be pretty able to breaking the conventional limitations imposed via way of means of the society at the moment are hard the patriarchal gadget alevn though in a restricted scale.

Women and sport leadership

Women do lead, they may be competitive, and that they have lots to provide the converting face of game. Yet globally ladies continue to be below represented as coaches, administrators, and officers in any respect ranges of competition . The patriarchal subculture of game and the marginalisation of ladies in the game place of business go away ladies feeling unsupported and isolated. Women constitute 49.5% of the worldwide populace but are handled as a minority institution in game; however, this minority institution refuse to stay or be silenced and are making themselves extra visible. The popularity quo wishes to be challenged with disruption and alternate on the systemic stage required.

National policies

The National Policy on Empowerment of Women followed in 2001 states that " All sorts of violence in opposition to ladies, bodily and mental, whether or not at home or societal levels, together with the ones bobbing up from customs, traditions or widely wide-spread practices will be treated efficaciously on the way to cast off its incidence. Institutions and mechanisms/schemes for help may be created and reinforced for prevention of such violence, together with sexual harassment at paintings region and customs like dowry; for the rehabilitation of the sufferers of violence and for taking powerful motion in opposition to the perpetrators of such violence. A unique emphasis can also be laid on programmes and measures to address trafficking in ladies and girls." Under the Operational Strategies, the Policy presents:

- a. Strict enforcement of applicable felony provisions and rapid redressal of grievances with unique awareness on violence and gender associated atrocities;
- b. Measures to save you and punish sexual harassment at paintings region and safety of ladies people withinside the organised/unorganized sector

- c. Crime in opposition to ladies - their incidence, prevention, investigation, detection and prosecution to be reviewed often in any respect Crime Review fora on the Central, State and District levels.
- d. Women's Cells in Police Stations, Women Police Stations, Family Courts, Mahila Courts, Family Counseling Centres, Legal Aid and Nayaya Panchayats to be reinforced and improved to cast off VAW and atrocities in opposition to ladies.

Conclusion

The society is extra biased in desire of male infant in recognize of training, vitamins and different opportunities. The root motive of this kind of mind-set lies withinside the notion that male infant inherits the extended family in India with an exception in Meghalaya. Women frequently internalize the conventional idea in their function as natural, for this reason causing an injustice upon them. There are numerous constraints that take a look at the technique of women empowerment in India. Social norms and own circle of relatives systems in growing nations like India, manifests and perpetuate the subordinate reputation of girls. One of such norms is the persevering with desire for a son over the start of a female infant, that's found in nearly all societies and communities. The maintain of this desire has bolstered in preference to weakened and its maximum evident proof is withinside the falling intercourse ratio (Seth, 2001).

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9. Psychology in Sports: Advantages from Psychology

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Abstract

Sports performance is determined by a combination of physiological factors, technical skills, tactical vision and state of mind. All four factors are critical to peak performance. However, the last, of these could be argued as an executive function, as the mind determines whether what you have been practicing for the last few years will come back to life - at the moment when it matters most. Every top athlete knows that his best performance comes from his mind as much as his body. Emphasizes the importance of a "positive state of mind" which is essential for any level of athlete, with top golfers losing years of games in a row and swimmers losing critical tenths of the ever-looming threat of sports performance anxiety. It is very important for an athlete to be in a positive environment that helps him feel positive. It has been proven over the years that even if you spend long hours training the body of an elite athlete, you have to spend little on his brain. It is a known and proven fact that psychological skills or abilities can improve the physiological abilities of people. Sports psychology plays an important role in learning motor skills. Learning motor skills depends on the individual's level of readiness, i.e. physiological readiness and psychological readiness. The physiological readiness of a child is the development of the necessary strength, flexibility and endurance and the development of various organ systems, so that they can perform the motor skills necessary in an activity. Sports psychology is an interdisciplinary science. It includes the investigation of what mental variables mean for execution and what cooperation in game and exercise mean for mental and physical factors.

Introduction

Sports brain science is the investigation of how mental elements impact sports, athletic execution, work out, and actual work. Sports clinicians examine how taking part in sports can improve wellbeing and prosperity. They likewise assist competitors with using brain research to improve their games execution and mental prosperity. They don't simply work with world class and expert competitors, be that as it may. They additionally assist customary individuals

with figuring out how to appreciate sports and figure out how to adhere to an activity program. They use exercise and games to improve individuals' lives and prosperity. Prologue to Sport Psychology gives a key comprehension of how the different parts of brain science can be applied to wear support. Appraisal of character types will be examined identifying with sport cooperation. This will be extended to talk about inspiration and authority commitment to don investment just as the connection among uneasiness and excitement as for improving donning execution. Mental abilities preparing will at that point be illustrated, including objective setting, group elements, symbolism, positive self-comparable to accomplishing top donning execution. Prologue to Sport Psychology gives a more prominent comprehension of the mental cycles of individual competitors and group elements to upgrade brandishing execution.

Since there are numerous manners by which we can apply brain science to game and, given the wide scope of exercises that various societies view as game, it is useful to embrace a serious expansive meaning of game brain science. In 1996, the European Federation of Sport Psychology (FEPSAC) delivered a particularly expansive definition, which, marginally streamlined, peruses, 'Game brain science is the investigation of the mental premise, cycles and impacts of game.' This obviously asks the inquiries, what is sport and what is brain research? Albeit numerous competitors would demand that sport fundamentally incorporates a component of rivalry, the term 'sport' is utilized, both in the FEPSAC meaning of game brain science, and all through this book, in the broadest sense, including any active work for the motivations behind rivalry, amusement, schooling or wellbeing. Brain research is regularly characterized as 'the study of psyche and conduct' (Gross, 2005).

Sports psychology plays a very unique role in improving physiological abilities such as strength, speed and flexibility, etc. motivation plays an important role in improving the physical performance of athletes. Although India is still conservative about the concept of psychology, sports psychology is gaining popularity among the youth as a career option and sports federations are opening doors to professional sports psychologists to improve performance. This aspect of athletic performance has traditionally received the least attention when preparing for competitions. So, in a world where many athletes are more and more alike physically, technically and tactically, intelligence provides perhaps the greatest competitive advantage. Additionally firmly connected with Sports psychiatry. The fame of game brain science, both as a scholastic order and an applied practice, has developed significantly in the course of recent

many years. Not many inside the domain of serious sports would contend with the significance of being intellectually set up preceding an athletic rivalry just as the need to keep up that specific attitude during a serious challenge. All things considered, ongoing examination has shown that numerous competitors, mentors, and donning managers are still very hesitant to search out the administrations of a certified game therapist, regardless of whether they trust it could help.

K.M. Kulutta, "Sports neuroscience for proper training is a branch of brain science that studies games and the actual well-being of people who support sports. The brain study of games is a multidisciplinary science that draws information from the fields of kinesiology and psychology. It includes an explanation of how mental factors affect performance and what it means to sport and the mental and real components of training collaboration. Despite the training and training of mental skills aimed at improving performance, applied sports brain research can include work with competitors, mentors and mentees. of injury, recovery, correspondence, team building and career transition. The brain science of play is often referred to as "gaming and brain science for practice" because it applies to group activities as well as hobbies. personal well-being Sports neuroscience is the study of what brain science means for sports, sports performance, exercise and active work. Some game analysts work with experienced competitors and mentors to improve performance and increase inspiration. Many experts use exercise and sport to improve people's lives and well-being throughout life. Sports brain research is a relatively young field of brain science. Increased pressure from competitors can cause competitors to respond both authentically and intellectually in ways that can harm their performance. They can get tense, their pulse quickens, they penetrate the virus, they stress about the result of the opposition, it is difficult for them to concentrate on close things. This interest has zeroed in on strategies that competitors can use in difficult conditions to stay in control and improve their performance. Once these methods are implemented, the competitor can relax and focus positively on preparing and supporting the competition.

Role of Sports Psychology

The specific field of sports brain research has grown quickly lately. The significance of a games analyst as a fundamental individual from the instructing and medical services groups is generally perceived. Sports analysts can instruct abilities to help competitors upgrade their mastering interaction and engine abilities, adapt to serious pressing factors, adjust the degree of

mindfulness required for ideal execution, and stay centered in the midst of the numerous interruptions of group travel and in the serious climate. Mental preparing ought to be a basic piece of a competitor's comprehensive preparing measure. This is best cultivated by a community oriented exertion among the mentor, the game clinician, and the competitor; in any case, an educated and intrigued mentor can master essential mental abilities and give them to the competitor, particularly during real practice. To help the gatherings' air and resolve contrasts.

In mental availability, sports brain research assumes a significant part. Sports brain research is likewise useful in the psychological stage, the social-dynamic stage and the self-sufficient phase of engine ability acquiring. Sports brain science helps in understanding the conduct of competitors or sportspersons occupied with serious games.

Advantage from sports brain science

1. Improve concentration and manage interruptions. Numerous competitors can focus, yet frequently their attention is dislodged on some unacceptable territories, for example, when a player thinks "I need to get a hit" while in the hitter's container, which is an outcome arranged core interest. A lot of my guidance on center arrangements with assisting competitor with remaining zeroed in on the current second and let go of results.
2. Grow trust in competitors who have questions. Uncertainty is something contrary to certainty. On the off chance that you keep up numerous questions before or during your exhibition, this shows low self-assurance or possibly you are attacking what certainty you had toward the beginning of the opposition. Certainty is the thing that I call a center psychological distraction expertise in view of its significance and relationship to other mental abilities.
3. Develop adapting abilities to manage misfortunes and mistakes. Enthusiastic control is an essential to getting into the zone. Competitors with high and exacting assumptions, experience difficulty managing minor blunders that are a characteristic piece of sports. It's critical to address these assumptions and furthermore help competitors stay formed under tension and when they submit mistakes or become disappointed.

Conclusion

Sports psychology plays a very unique role in improving physiological abilities such as strength, speed and flexibility, etc., motivation plays an important role in improving the

physical performance of athletes. It is a known and proven fact that psychological skills or abilities can improve the physiological abilities of people. Sports psychology plays an important role in learning motor skills. Learning motor skills depends on the individual's level of readiness, i.e. physiological readiness and psychological readiness. The physiological readiness of a child is the development of the necessary strength, flexibility and endurance and the development of various organ systems, so that they can perform the motor skills necessary in an activity. Psychological readiness refers to the learner's state of mind. It means desire and willingness to learn a certain skill. Sports psychology has existed for around 100 years, getting broadly acknowledged during the 1960s, and filling quickly in impact at the hour of composing. Game therapists lead research, instruct invested individuals, like mentors, and work straightforwardly with competitors to improve their exhibition. A few therapists draw a qualification among scholarly and applied game brain science, yet this is disputable. Additionally dubious is the issue of accreditation of game analysts. As of now, there is an advance toward accreditation on the whole the callings; in any case, there is some opposition in sport brain research, implying that the absolute most experienced specialists have not looked for accreditation.

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10. An Analysis of Mental Toughness among the Inter Collegiate Players

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Abstract

Success is influenced by psychological aspects like mental toughness, which is a crucial psychological quality. This study's goal was to analyse the intercollegiate players' mental toughness. The Mental Toughness Questionnaire was one of the tools used in this investigation. After the investigation of final the Inter Collegiate players' from Manonmaniam Sundaranar University had low level of mental toughness was shown by the findings. Analyses of descriptive data had showed that total mental toughness was significantly impacted. The results of the descriptive analysis revealed that there was no meaningful suggestion among the mental toughness. The study's findings indicated that the players' mental toughness was insufficient at their participating level. According to this study, players who want to perform well in contests should engage in psychological skill training to strengthen their mental toughness.

Keywords: Mental Toughness, Inter collegiate players, Psychology.

Introduction

The ability to deal with difficulties and persevere under duress is known as mental toughness, which has been examined as a significant individual difference factor. Sport is where mental toughness receives the most attention, although its effects are increasingly understood in a wide range of other fields. Positive psychological resources are included under this general phrase, and they are significant in a variety of circumstances for accomplishment. [1]

To assist athletes in performing at their best and excelling in competition, research in applied sport sciences has found that mental training is extremely important in addition to technical, tactical, and physical preparation. Athletes compete at the highest level when their physical, technical, tactical, and skill levels are almost identical. But only one winner will be

determined. According to Cox (2012), psychological profiles can be used to distinguish elite athletes from competitors with less competence. The best predictors of athletic performance have been shown to be psychological profiles that contain situational measurements of psychological states. The majority of great athletes and coaches think that mental preparation is essential for success. Many individuals consider mental toughness and concern about competition to be significant psychological traits that influence success. [2,3,4]

High mental toughness athletes are better able to control negative and possibly crippling emotions like competitive nervousness. S. Hanton, M. O'Brien, and S. D. Mellalieu (2003) described mental toughness as possessing the innate or acquired psychological advantage that enables athletes to handle pressure better than rivals while remaining focused, assured, and in control. As was previously said, although there have been many models and frameworks for mental toughness, Jones and Moorehouse (2007) established a helpful practical framework based on the features of mental toughness research that groups the numerous attributes into the four pillars of mental toughness (i.e., motivation, self-confidence, attentional focus, and coping with pressure). The four pillars of mental toughness can serve as an organized framework for identifying tactics to educate and develop mental toughness from a practical standpoint. Following a brief description of each of the four pillars, concrete advice on how to develop mental toughness through either instruction in mental skills or the creation of favorable conditions is provided, such as the physical, mental, emotional, and social.

Statement of the Problem

The Aim of the study to analyses the Mental Toughness of Inter Collegiate Players in Manonmaniam Sundaranar University, Tirunelveli.

Methods

The research involved 60 players from intercollegiate tournaments held at Manonmaniam Sundaranar University in Tirunelveli. The chosen participants were both male and female and ranged in age from 18 to 25. The players' mental toughness was assessed using the translated version of A. Goldberg's (2012) Mental Toughness Questionnaire (MTQ) by Nur Haziyanti Mohamad Khalid (2019).

Scoring

The five criteria of the Mental Toughness Questionnaire (MTQ) are: Reboundability, handling pressure, concentration ability, level of confidence, motivation. Thirty items make up

the MTQ questionnaire. Every statement can have one of two True or False responses. Every section with a score of 6 indicates a particularly strong competency. A score of 5 indicates strong performance, whereas a score of 4 or lower indicates a mental deficiency that has to be corrected. A score of 26 to 30 shows strong mental toughness overall. Getting a 23–25 means you have ordinary to moderate mental toughness. A score of 22 or lower indicates a lack of mental toughness and the need to devote more time to mental training.

Measurements of the mean and standard deviation of the mental toughness tests were made using descriptive statistics. The criterion for significance was fixed at 0.05.

Results and Discussion

Descriptive statistics were used in MS Office Excel for data analysis in order to report on the profiles of respondents and their mental toughness. An overview of the scores for mental toughness is shown in table 1. All respondents received the results that were below 21 which is 17.03, indicating that they lack of mental toughness and should begin focusing more on mental training.

Table 1: Overall Mental Toughness Score

Score	Number of players	Mean Value
26 - 30 (High)	None	-
22-25 (Moderate)	None	-
21 and below (Low)	60	17.03

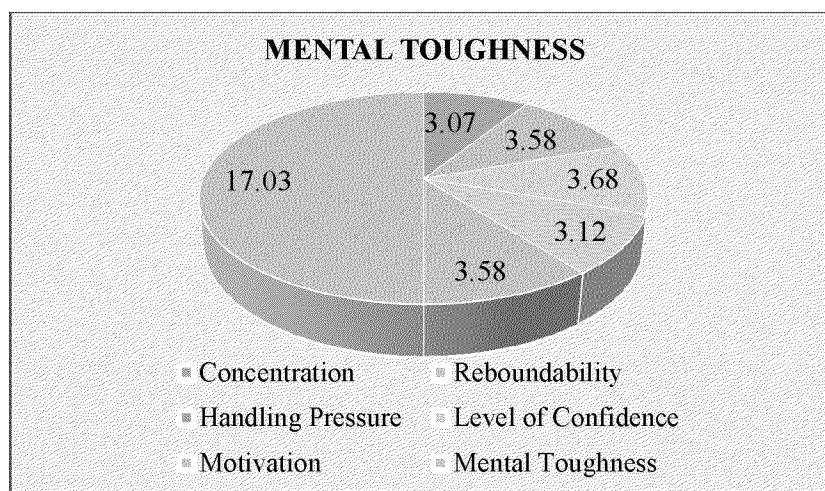
Below in table 2 displays the means and standard deviations for each of the five MTQ subscales. In terms of concentration (M=3.07, SD=1.44), reboundability (M=3.58 SD=1.32), handling pressure (M=3.68 SD=1.38), confidence (M=3.11, SD=1.51), and motivation (M=3.58, SD=1.34), descriptive analysis revealed that all players lacked mental toughness. They exhibited a poor level of mental toughness, according to their overall mental toughness score (M=17.03, SD=4.05).

Table 2: Descriptive Analysis of Mental Toughness

Subscales	M	SD
Concentration	3.07	1.45
Reboundability	3.58	1.32
Handling Pressure	3.68	1.38
Level of Confidence	3.12	1.51
Motivation	3.58	1.34
Overall Mental Toughness	17.03	4.05

Figure 1 shows the means for each of the five MTQ subscales. In terms of concentration, reboundability, handling pressure, confidence, and motivation, descriptive analysis revealed that all players lacked mental toughness. They revealed a poor level of mental toughness, according to their overall mental toughness score.

Figure 1: Mental Toughness



Conclusion and Recommendations

This study aims to evaluate the intercollegiate players' mental toughness. The athletes' results on all of the subscales, including motivation, confidence, reboundability, handling pressure, and concentration, suggested that they lacked mental toughness. Numerous experts have noted that mental toughness is a key factor in sports success, which is cause for concern [18]. Previous research on mental toughness and performance by P. Clough, K. Earle, and D. Sewell (2002) and L. Crust and P.J. Clough (2005) has repeatedly established an association between improved cognitive and motor abilities and greater levels of mental toughness.

According to the study's findings, all of the athletes had mental toughness scores below 4, which indicates that they have weak mental toughness. As a result, it is recommended that the athletes undergo comprehensive psychological skill training.

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11. A Comparative Study on the Sport Competition Anxiety between Taekwondo and Wushu Players

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Abstract

Purpose

An individual feels mentally disturbed; he is said to be in an anxious mood. As far as anxiety in the field of physical education and sports activities is concerned, it is said that anxiety is most common in competitive sports environments. Anxiety and sports are deeply related. He further stated that anxiety is not always bad, but it can help the players with their focus and alertness when performing their actions. While participating in various sports activities, it is observed that the participants get anxious. Therefore, the main objective of the present study was to find out the level of sport competition anxiety among Taekwondo and Wushu players.

Method

The data pertaining to this study was collected from the National Sports Academy, Khuman Lampak Sports Complex, Imphal, Manipur, and the Sports Authority of India (SAI), Khuman Lampak main stadium, Imphal, Manipur. For this study, 50 male Taekwondo and Wushu players who participated at the national level were selected as subjects. A random sampling technique was used to select the subjects. For this study, the Sports Competition Anxiety Test (SCAT) by Martens (1977) questionnaire was used to measure sports competition anxiety.

Result

To analyse the data, descriptive statistics (mean and standard deviation) were used. The level of significance was set at 0.05. The mean value of Taekwondo players is 21.96, and the mean value of Wushu players is 17.8. After analysis, the data "t" value is 6.84 at the 0.05 level of

significance. Hence, there was a significant difference between Taekwondo players and Wushu players.

Keywords: Anxiety, Taekwondo players, Wushu players, Questionnaire.

Introduction

Anxiety is termed a “distributed state” of the body and mind or a state of nervousness. Anxiety is the apprehension of danger accompanied by restlessness and oppression in the digestive tract and viscera. Anxiety has both physiological and psychological implications for sports performance (Kamlesh, 2020, p.594). Anxiety is the feeling of nervousness, worry, and apprehension. It is triggered by the anticipation of future events. In sports, anxiety is common and influences the performance of athletes in competition. In order to achieve motor skills and player performance, anxiety plays an essential role. High or low performance can be due to anxiety. Either positive or negative, it depends on how the athlete perceives the situation. As well as having high or low levels of anxiety, they generally prefer to diminish learning and performance. At every level, anxiety is a natural part of the competition. But the quality of young and unrefined sportsmen can be badly affected by anxiety. Anxiety is defined as feelings of nervousness and tension caused by the environment or surrounding expectations that are related to 'arousal'. Such conditions are typically overwhelming to tell competitors that the expectation they seek is imbalanced and that they are able to meet the requirement (Gould, Krane, & Greenleaf, 2002). Individual games consist of the sports and games in which athletes compete as individuals and have individual results. Individual sport athletes are more introverted, have more individual goals, are more independent, and competition between individual athletes is more common. And having higher responsibility over the result. Team games are games and sports in which the athletes combine to form a group, they compete as a team, and the team shares the results (Lindwall, Johnson, & Rylander, 2016). Anxiety in sports has been one of the factors affecting participation at various levels. They should also know how one can cope with such situations and avoid having them occur in sports activities (Khan et al., 2017, 19–23).

Statement of the Problem

The problem was stated as "A Comparative Study on the Sport Competition Anxiety between Taekwondo and Wushu Players."

Objective of the Study

The main objective of the present study was to find out the level of competition anxiety among Taekwondo and Wushu players.

Hypothesis of the Study

H₁: It was hypothesized that there would be a significant difference in sport competition anxiety between Taekwondo and Wushu players.

Literature Review

A study was done in 2022 by Singh et al. to determine the level of judo and taekwondo competitors' anxiety. The Regular Coaching Centre (RCC) and Sport Authority of India (SAI), Khuman Lampak main stadium, Imphal, Manipur, were the sources of the data for this study. 19 male competitors in Taekwondo and Judo at the national level were chosen as the study's subjects. The subjects were chosen using a random selection procedure. The Sport Competition Anxiety Test (SCAT) by Martens (1977) questionnaire was used in this study to gauge participants' levels of competition anxiety. The questionnaire consists of 15 statements, 10 of which measure symptoms associated with anxiety, with five others that are not scored to reduce the likelihood of an internal response-set bias. Mean and standard deviation were used as descriptive statistics to analyse the data. The acceptable level of significance is 0.05. Judo players have a mean value of 17.3158, while taekwondo players have a mean value of 22.1053. The data "t" value after analysis is 7.005* at the 0.05 level of significance. As a result, there was a big gap between players of taekwondo and judo.

Tribal and non-tribal athletes' anxiety levels were compared by Kumar et al. in 2014. 100 tribal and 100 non-tribal athletes were chosen for the study's sample of 200 from Amravati's physical education colleges (M.S). The athletes' anxiety levels were assessed using the manifest anxiety scale, which was created by Drs. Srivastava and Tiwari. The mean and SD of the anxiety scores obtained by tribal and non-tribal athletes were computed in order to compare the anxiety scores of the two groups. The significance of the difference between tribal and non-tribal athletes was examined using the "t" test.

Mozhi and Vinu (2019) conducted a study was to compare the psychological variable namely competition anxiety between men and women Boxers and Fencers. To achieve the purpose of this study one hundred and twenty Boxers and Fencers of Boxers and Fencers Cuddalore District, Tamil Nadu, India was randomly selected as subjects. Among them sixty

men Boxers and Fencers (thirty men and thirty men Boxers and Fencers) and sixty women Boxers and Fencers (thirty women and thirty women Boxers and Fencers) with an age of the subjects were ranged between 18 to 24 years were selected as subjects. Competition anxiety was assessed by using standardized test item Rainer Marten's sport competition anxiety test questionnaire and it was statistically analyzed by using 2 x 2 factorial ANOVA. Whenever, the obtained 'F' ratio value for interaction effect was found to be significant, the simple effect test was applied as follow up test. In all cases, the .05 level of confidence was fixed to test the level of significance which was considered as an appropriate. There was significant difference between men and women Boxers and Fencers on selected psychological variable namely competition anxiety irrespective of their games (Boxers and Fencers) and gender (men and women). Among them, men Boxers and Fencers were better competition anxiety than other categories of Boxers and Fencers.

Kumar et al. (2017) conducted a study was to compare the anxiety level among Contact and Non-contact sports persons who used to take part in state/national/international level tournaments. For this study the investigator selected two hundred and fifty (250) contact sports persons and two hundred and fifty (250) non-contact sports persons (Total-500). The subjects were between the age group of 18-40 years. The consecutive eligible subjects were selected from various sports training camps for the study. To measure anxiety level between Contact and Non-contact sports persons, a Sport Competition Anxiety Test (SCAT) questionnaire was employed. For statistical analysis and interpretation of data, 't' test was applied. It was concluded by data analysis result that contact sports persons have significantly higher anxiety level than non-contact sports persons.

Singh (2019) conducted a study was to compare pre competitive anxiety level between boxer's male and female players of SAI Centre Mastuana Sahib, Sangrur. The study was conducted on 40 subjects in which 20 male and 20 female players selected as a sample. The age of the subjects ranged between 18-25 years. All the samples were selected as random basis. To assess the pre competitive anxiety level of male and female players, Sport Competition Anxiety Test (SCAT) prepared by A.K.P. Sinha was used. This inventory is highly reliable & valid to assess pre competitive anxiety level of selected male and female boxer's players. To find out the significant difference among two group's i.e., male and female boxer's players, 't' test was used.

Results found that Female boxer's players have higher anxiety level as compared to male boxer's players.

Singh and Pardhi (2021) designed a study to investigate the anxiety level among boxer and wrestler during pre-competition period. For this study 100 male athlete were selected randomly from Jalandhar based Coaching centers. There are range from 18 to 24 Years. Sports Competition Anxiety Test (SCAT) (Martens et al. 1990) was used to measure the anxiety level for the analysis of data SPSS version 16 was used. The results are found there was a significance difference among Boxer and Wrestler. The mean score of anxiety level Boxer and Wrestler samples was found 59.21 and 64.75 respectively. The calculated t value was -1.424. Since $p < 0.05$ is more than our chosen significance level $\alpha = 0.05$, we can't reject the null hypothesis and conclude that the mean anxiety for boxer and wrestler is significantly different.

Methodology

Design of the study

A cross-sectional descriptive survey design was adopted for the current study.

Selection of Subjects

50 male Manipur taekwondo and Wushu players were chosen as subjects, and their ages ranged from 19 to 23 years. The National Sports Academy, Khuman Lampak Sports Complex, Imphal, Manipur and the Sports Authority of India (SAI), Khuman Lampak main stadium, Imphal, Manipur served as the subjects for the current study's data gathering. The subjects were chosen using a random selection procedure. As a result, the complete chosen topic from two disciplines served as the study's data source.

Selection of Variable

One dependent variable selected for this study was the Sport Competition Anxiety. And the independent variables selected were the taekwondo and wushu players from Manipur.

SCAT Evaluation and Scoring: The Sport Competition Anxiety Test (SCAT) consists of 15 statements, 10 of which measure symptoms associated with anxiety, with five others that are not scored to reduce the likelihood of an internal response-set bias. The scores for the 10 statements are summed up to provide an overall measure, with a high score reflecting a greater tendency to experience competitive anxiety. A score of less than 17 indicates a low level of anxiety, 17 to 24, an average level of anxiety, and more than 24 a high level of anxiety

Administration of Questionnaire

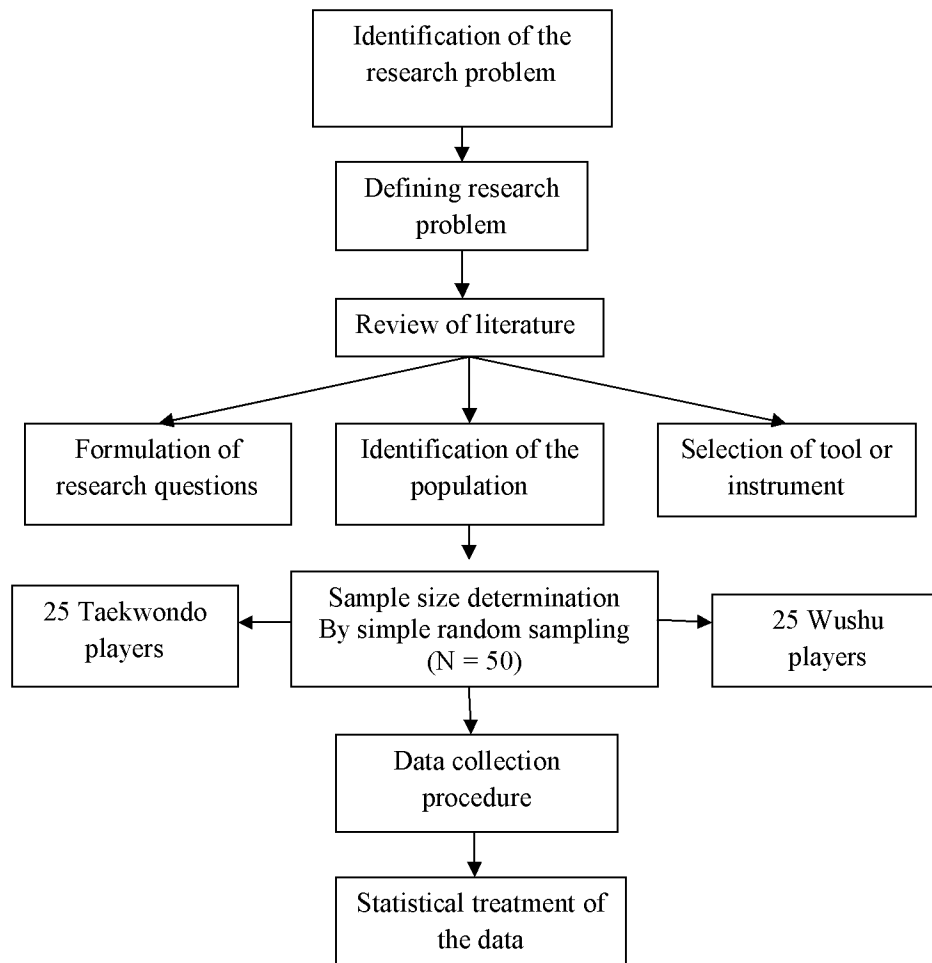
The Sport Competition Anxiety Test questionnaire was used by the researcher to attempt to gather data for an assessment of the individuals' level of anxiety (SCAT). 50 subjects-25 participants in Taekwondo and 25 in Wushu-who had competed in a national competition in Manipur were given questionnaires by the researcher when he personally visited them. He also explained how to complete the questionnaire on your own. For the purposes of this study, researchers' personal visits and comments were provided. The participants were given the option to sign the questionnaire after submitting their responses in accordance with the researcher's instructions, which was done to ensure honesty in the questions provided. They were given the assurance that the information they provided would remain private, and great care was taken to ensure that this assurance of anonymity was recognized and upheld. Data were gathered for each game an hour prior to the commencement of the match. Simply add the weighted scores for the components to get the scores for the competitive anxiety scale for the sport. There is no time limit for completing the questionnaire. Once the instructions were properly understood beforehand, the participants were requested to react as soon as possible without dwelling on any questions or statements. As a result, the players completed questionnaires for the researcher before each game. Each and every questionnaire that the gamers completed was validated by the researcher. A few gamers failed to respond to several questions after the questionnaires were verified, it was discovered. For the full information on the surveys, researchers also conducted in-person interviews with those players while gathering data.

Collection of Data

The information was gathered by giving a questionnaire to the chosen participants. Subjects' scores on the anxiety questionnaire were tallied independently, and score sheets were assessed in accordance with the guidelines outlined in the test manual.

Statistical Analysis

Descriptive analysis was used to determine the characteristics of the data, mean and standard deviation (SD) were calculated, and an independent sample 't' test was applied at a 0.05 level of significance for the comparison of the Sports Competition Anxiety Test (SCAT) between Manipuri Taekwondo and Wushu players. With the use of the statistical software for social science, the data was analyzed (SPSS).



The diagrammatic representation of the research flow chart is shown in figure 3.1.

Data Analysis and Interpretation

The results of the objective-wise data analysis and interpretation of the present study. The collected data was treated for both descriptive statistics such as mean and standard deviation, and inferential statistics such as the independent sample t-test. The data was analyzed with the help of IBM SPSS Version 22. The significant level was set at 0.05.

Results

To analyse and interpret the collected data, descriptive statistics (mean and standard deviation) were employed. To analyse the results, though the responses are stated on a 5 (five) scale, they are added together, which is also enlisted within brackets in the description of the

particular table. The descriptive analysis of taekwondo and wushu players was presented in table 1.

Table 1: The mean value of sport competition anxiety in taekwondo and wushu players and independent sample test

Variables	N	Mean	Std. Dev.	SEM	Df	t-value
Taekwondo players	25	21.96	2.35	0.47	48	6.84*
Wushu players	25	17.88	1.83	0.37		

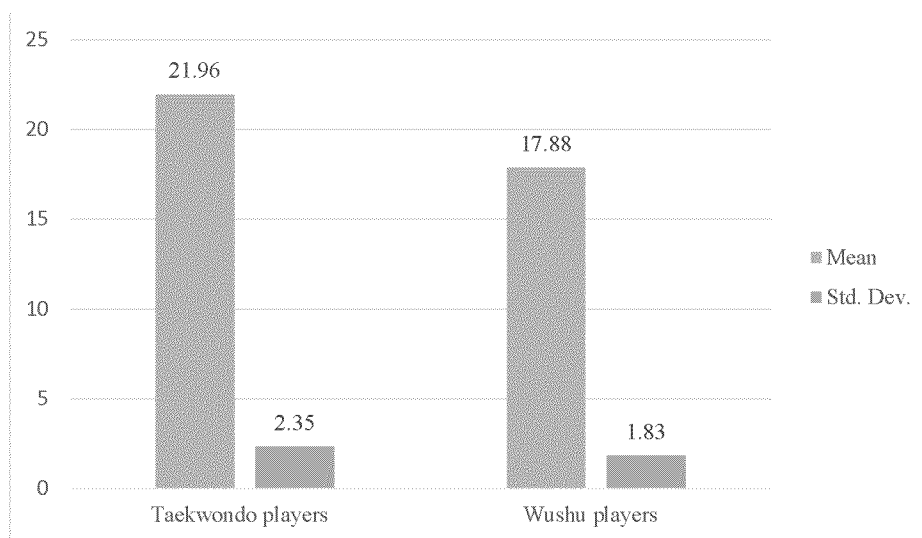
*Significance at 0.05

Tabulated $t_{0.05} (48) = 2.409$

Table 1 reveals that the mean and standard deviation of the sport competition anxiety test for taekwondo and wushu players were 21.96 ± 0.47 and 17.88 ± 1.83 , respectively. In addition, the standard error mean of taekwondo and wushu players was also found to be 0.47 and 0.37, respectively. There was a significant difference as the value obtained was 6.84*, whereas the tabulated value was 2.409 at 0.05 level of significance. The hypothesis was accepted and inferred that taekwondo players had more anxiety than their wushu players counterparts as measured in the sport competition anxiety test (SCAT).

The graphical representation of taekwondo and wushu players mean comparisons for sport competition anxiety test was shown in figure 1.

Figure 1: The mean comparison of the sport competition anxiety test in taekwondo and wushu players



Discussion of the results

There was a significant mean difference in anxiety levels between taekwondo and wushu players as measured by the Sports Competition Anxiety Test (SCAT). The hypothesis, which stated that "there would be a significant difference between taekwondo players and wushu players in sport competition anxiety," was accepted, and it was inferred that taekwondo players had more anxiety than their wushu counterparts as measured in the sport competition anxiety test (SCAT). This could be attributed to the fact that the nature of the games in the two sports is quite different and we don't have any control over other significant factors such as the dietary habits, family environment, and training regimen of the athletes. The small number of participants was also another handicap of the study; therefore, the results could not be generalized to other findings of similar studies.

Again, anxiety is likely to be greater in combative sports than in non-combative sports because, in combative sports, players are expected to win, and a great demand is placed on them to succeed (Singh et al., 2022, pp. 1628–1631).

Conclusion

On the basis of the above findings, the researcher concluded that there were significant differences in sports competition anxiety between taekwondo and wushu players of Manipur.

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12. Mental Toughness: A Guide for Success of Athletes

Anuradha Solanky

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Shreya Gupta

Abstract

This study investigates the role of mental toughness in athletic success. Mental toughness is an essential psychological element that can help athletes to improve their athletic performance. The purpose of this study is to evaluate the mental toughness of Indian athletes competing in shooting, gymnastics, cycling, and hockey. A purposive sample of 239 Indian athletes was included in the study. Mental toughness was assessed using the Psychological Performance Inventory (PPI) by Loehr (1986). The study found that negative energy control and attention control were the areas in which all athletes needed to improve. This has important bearing for developing psychological skills training for performance enhancement.

Keywords: Mental toughness, PPI, Indian athletes, PST

Introduction

Success of an athlete is always multifactorial. Numerous elements, including technical, tactical, psychological, and physical components have an impact on athletic success. While each of these factors is significant, psychological factors are particularly important in determining whether a sports team will win or lose. As Vince Lombardi, a well-known American football coach, once said, "If you can't accept losing, you can't win." This quote highlights the importance of mental resilience and the ability to bounce back from setbacks. While an athlete's performance may be influenced by heredity, psychological traits like optimism, motivation, and perseverance are also very important. Mental toughness stands out as a crucial determinant of athletic achievement among these variables.

It has been found that mental toughness is an important factor in preserving mental health as well as being a substantial predictor of physical achievement. According to Cowden et al., (2019) mental toughness is positively related to lowered stress levels, decreased depression, and better sleep. Additionally, 10 Olympians were used in a study by Gould et al., (2002) which identified mental toughness as one of the crucial psychological elements for good performance. On the other hand, an athlete's performance may suffer from a lack of mental toughness leading to a lack of motivation, giving up easily, poor decision-making, and ultimately leading to

suboptimal performance. Thus, developing mental toughness is essential for athletes who want to succeed in their sport.

Studies have consistently shown a link between mental toughness and athletic success. Unfortunately, a lot of athletes only pay attention to mental preparation when they have already endured disappointments or negative emotions. Nonetheless, an athlete's overall performance and mental health can benefit greatly from regularly adding mental training into their daily routine. This is crucial since athletes are constantly faced with stressors and difficulties that can produce internal conflicts and have a negative effect on their performance. Consequently, developing mental toughness daily might help athletes keep a balanced viewpoint and deal with adversity more effectively, ultimately enhancing their athletic performance.

Technical, cognitive, and affective skills are three critical components of mental toughness, a psychological factor that is essential for achieving peak performance. The cognitive component of mental toughness requires maintaining composure and concentration under pressure, both on and off the field, as well as maintaining confidence in one's own abilities and strategies. The affective component, on the other hand, deals with an athlete's capacity to maintain self-assurance and motivation while frequently encountering obstacles and setbacks before, during, and after games.

It is interesting to note that there are many viewpoints on what mental toughness is and what makes it up. Clough and colleagues (2002) used the hardiness theory to create a mental toughness model made up of control, commitment, challenge, and confidence. The primary pillars of mental toughness, according to Jones and Moorehouse (2007), are motivation, self-confidence, attentional focus, and handling stress. In practical terms, a framework can be put in place to improve an athlete's mental toughness. This study aims to assess the mental toughness of Indian athletes in shooting, gymnastics, cycling, and hockey.

Materials and Method

The purposive sample of 239 elite Indian athletes competing at national and international levels, in Shooting (n=93), Gymnastics (n=20), Cycling (n=32) and Hockey (n=94) were included in the study.

The Psychological Performance Inventory (PPI; Loehr 1986) was used to measure mental toughness. This 42-item scale yields a total mental toughness score, as well as seven 6-item subscale scores: (a) self-confidence; (b) negative energy control; (c) attention control; (d) visualization and imagery control; (e) motivation; (f) positive energy control; and (g) attitude control. Each item is rated on a five-point Likert scale anchored by 'almost always' and 'almost never'. The subscale scores range from 6 to 30 (with higher scores indicating more desirable

levels). The PPI has been found to be internally consistent, with Cronbach’s alphas for the seven subscales indicating high reliability (self-confidence = 0.69; negative energy control = 0.42; attention control = 0.75; visualization and imagery control = 0.82; motivation = 0.70; positive energy control = 0.71; attitude control = 0.71). The PPI demonstrated acceptable psychometric properties when used on athletes performing at a National or international level 22,23. The PPI was used because it had subscales that made it simple to divide items into cognitive and affective skills.

Procedure

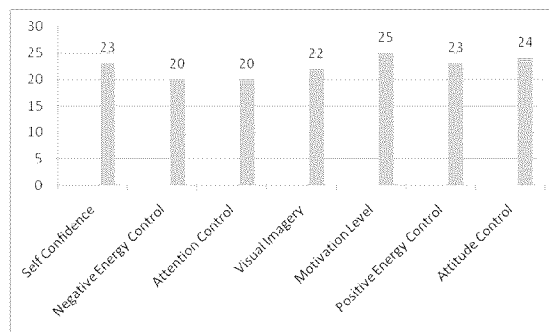
The questionnaires were distributed to the athletes after obtaining their consent. The responses were scored for each subscale. By evaluating the score of each item in each subscale for Shooting, Gymnastics, Cycling, and Hockey, interpretations were obtained.

Result

Descriptive statistics were calculated and presented in Table 1. The average score of each item was calculated and graphs were produced using Microsoft Excel to visualize the data.

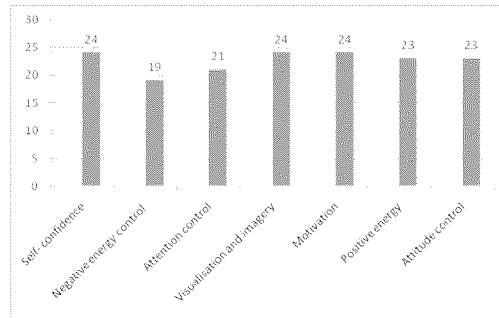
PPI	Self-Confidence		Negative Energy Control		Attention Control		Visual Imagery		Motivation Level		Positive Energy Control		Attitude Control	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Shooting n=93	23	1.41	20	2.12	20	2.12	22	0	25	0	23	.70	24	2.82
Gymnastics n=20	24	3.53	19	.70	21	4.24	24	1.41	24	1.41	23	2.82	23	4.94
Cycling n=32	23	2.82	19	2.12	20	5.65	24	5.65	24	2.12	23	.70	22	0
Hockey n=94	25	.70	20	0	21	4.24	25	2.82	26	1.41	25	1.41	25	1.41

Graph 1: Mental toughness profile - Shooting athletes



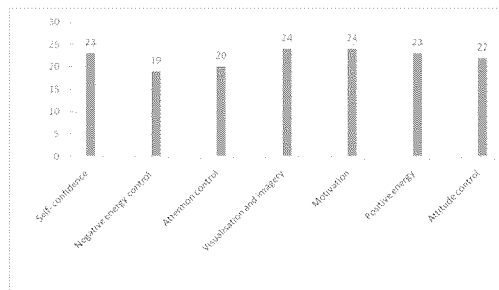
Graph 1 represents data of shooting athletes, which shows that Negative energy control and Attention control are the areas which need to be improved in comparison to the other areas of mental toughness.

Graph 2: Mental toughness profile - Gymnastic athletes



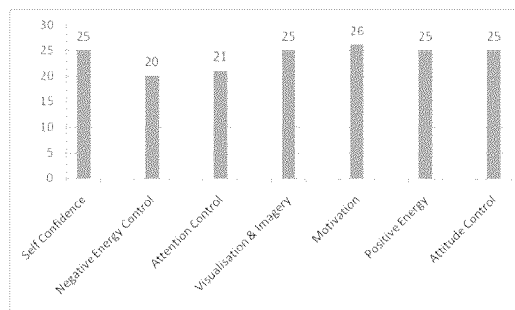
Graph 2 represents data of gymnastic athletes, which shows that Negative energy control and Attention control are the areas which need to be improved in comparison to the other areas of mental toughness.

Graph 3: Mental toughness profile - Cycling athletes



Graph 3 represents data of cycling athletes, which shows that Negative energy control and Attention control are the areas which need to be improved in comparison to the other areas of mental toughness.

Graph 4: Mental toughness profile - Hockey athletes



Graph 4 represents data of hockey athletes, which shows that Negative energy control and Attention control are the areas which need to be improved in comparison to the other areas of mental toughness.

Discussion

The capacity to persevere, maintain focus, and remain composed in the face of pressure, stress, or hardship is referred to as mental toughness. It involves having the capacity to control one's thoughts, emotions, and behaviours in a way that enables the best performance possible under challenging circumstances. Despite difficulties or losses, mentally tough people can maintain their cool and keep their goals in mind. They are motivated and determined even in the

face of difficulty because they have a strong sense of self-belief and are adept at controlling their emotions and thoughts. Mental toughness has become known as an essential quality for success in athletics in recent years (Golby& Sheard., 2004; Loehr, 1986). Sports psychologists, coaches, and athletes frequently stress the value of mental toughness to succeed in elite sports.

This study aimed to assess the mental toughness of Indian athletes in shooting, gymnastics, cycling, and hockey. The results of the study confirm the significance of focusing on aspects of mental toughness for various sports to improve performance. The result suggests that a lack of mental toughness in some subscales, such as negative energy control and attitude control, can be used to identify specific areas of an athlete's mental toughness that need to be improved with the help of training and intervention programmes.

Negative energy control means controlling such negative emotions such as fear, frustration, envy, resentment, rage and temper is essential to competitive success. Staying calm relaxed and focused is directly related to keep negative energy to a minimum. It is linked to our ability to perceive challenges as difficult and frustrating problems. Athletes who score low on this subscale may have difficulty controlling negative emotions such as anxiety, anger, or frustration, which can impact their performance.

A study by Lin et al., (2016) found that negative energy control was negatively related to anxiety and positively related to self-confidence in collegiate athletes. The study also found that athletes who scored higher on negative energy control tended to have better performance outcomes in their sport.

Another study by Grego et al., (2020) found that a 4-week negative energy control program improved body composition and performance in professional soccer players.

Attention control is another subscale of mental toughness that refers the ability to sustain a continuous focus on the task at hand is so central to performing well that it can't be over emphasised. Attention control is nothing more than the ability to "tune in' to what is not. The goal is a one-pointed form of concentration, so complete that a total loss of 'self occurs in the act of focusing. The more deeply an athlete can become immersed in the relevant aspects of play, the deeper the concentration and the greater the loss of self. Athletes consistently report that they lose self-consciousness when they are concentrating well. Athletes who score low on this subscale may have difficulty sustaining their attention or may be easily distracted by external factors, which can impact their performance.

A study by Huijgen et al., (2015) found that attention control was positively related to performance in elite youth soccer players. The study also found that athletes who scored higher

on attention control tended to have better decision-making skills and were more effective at anticipating and responding to their opponents' movements.

Another study by Sarkar et al., (2015) examined the relationship between mental toughness and performance in elite track and field athletes. The study found that attention control was positively related to self-reported performance and coaches' evaluations of performance. The study also found that athletes who scored higher on attention control were better able to focus and maintain their attention during competition. It was suggested that athletes who struggle with attention control may benefit from psychological training and support to help them develop their ability to maintain focus and attention during training and competition.

Study by Hill et al., (2020) examined the effects of attention control training on the performance of soccer players. The researchers found that a 6-week attention control training program led to improvements in the players' attentional focus, decision-making ability, and performance on the field.

Achieving peak performance requires the capacity to stay focused, manage pressure, and persevere in the face of difficulty. It is important to note that mental toughness may be acquired and improved via practice and training. It is not a set attribute. To help athletes perform better, coaches and sports psychologists can use the findings of this study to create programmes that effectively teach athletes' mental toughness.

However, certain limitations should be noted when interpreting the study's findings. First, the study only included elite Indian athletes, thus the findings may not be applicable to athletes from other countries or cultures. Second, the study relied on self-reported measures of mental toughness, which could be influenced by bias and social desirability.

Conclusion

The purpose of this study was to assess mental toughness and find areas for improvement among Indian athletes competing in shooting, gymnastics, cycling, and hockey. The study discovered that negative energy control and attention control were two key characteristics of mental toughness that needed to be improved across all sports assessed. These findings highlight the significance of psychological skills training programmes for athletes in developing mental toughness and improving performance outcomes.

Based on the study's findings, the following psychological skills training may be good for athletes to improve their mental toughness:

1. Visualization: Athletes can utilise visualisation techniques to psychologically prepare for competition and boost their confidence. Athletes can see themselves excelling in their sport, overcoming difficult situations with ease, and achieving their goals

2. Encouragement and positive self-talk: Encouragement and positive self-talk can help athletes maintain a strong feeling of self-belief and confidence even when faced with adversity. Athletes can practise positive self-talk by telling themselves affirmations or inspiring words
3. Goal setting: Athletes can stay focused and motivated by defining clear, quantifiable, and achievable goals. Athletes can set short- and long-term goals and strive towards them through focused practise and hard work.
4. Mindfulness practises, such as meditation or deep breathing exercises, can benefit athletes in regulating their thoughts and emotions, reducing anxiety and improving focus. These activities can also help athletes stay in the present moment, which can improve their performance.

Finally, adding these psychological skills training strategies into an athlete's training regimen can help them develop mental toughness, allowing them to perform well even in difficult situations.

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13. A Comparative Study of Selected Psychomotor Variables between Players of Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur and Hemwanti Nandan Bahuguna Garhwal University, (Garhwal)

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Abstract

The Study is enlightened the importance of selected psychomotor variables to the players from Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur (RTMNU) and Hemwanti Nandan Bahuguna Garhwal University, Srinagar (Garhwal) (HNBGU). The subjects for this study were selected from Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and Hemwanti Nandan Bahuguna Garhwal University, Srinagar (Garhwal) with the help of Purposive sampling. Inter-university players in selected games i.e. football, basketball, cricket, volleyball and handball were considered as subject for this study. 100 subjects were selected from Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and 100 subjects from Hemwanti Nandan Bahuguna Garhwal University, Srinagar (Garhwal). 20 subjects were selected from each game i.e. football, basketball, cricket, volleyball and handball. The age of subject ranges from 20 to 25 years. The selected variables in psychomotor variables were Kinesthetic perception, Speed of movement and Response time. After data collection, data of selected psychomotor variables of players of both the Universities was compared and analyzed by using 't-test to test the significance of the results. The level of significance was kept at 0.05 to test the hypothesis. There would be no significant difference in kinesthetic perception & Response time between players of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and Hemwanti Nandan Bahuguna Garhwal University, Srinagar (Garhwal). There would be significant difference in speed of movement between players of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and Hemwanti Nandan Bahuguna Garhwal University, Srinagar (Garhwal).

Keywords: Psychomotor ; Kinesthetic perception; Response time.

Introduction

Sports are the highest products of civilization and the most accessible, lived, experiential sources of the civilizing spirit---Michael Novak

Psychomotor learning is the heart of physical educational experience and result in the achievement of general motor ability as well as selective skills in various activities. This objective is concerned with developing body awareness and making physical movement efficient, graceful, esthetic and useful, with as little expenditure of energy as and vigour through physical activities (Ajmer Singh, 2003, p. 19).

Improving skill means that the performance of any motor task becomes more efficient, thereby reducing the time taken to complete the task and the level of effort required. This increased level of skilfulness could also mean more enjoyment and satisfaction for the performer by increasing the ease with which the task can be completed or by allowing new, more complex skills to be attempted. If by understanding the processes that govern the control of movement we can show the way for all individual to improve their ability to perform the myriad of motor tasks that they confront, then we can claim to have made a real contribution to improving the quality of life within our society... ..Robert Kerr, In Psychomotor Learning

Every human action involves movement of some sort. Movement is an integral feature of a human being and is thus a tool of life. Sports and physical education is a science of perfect, deliberate and desirable movements. Motor performance depends on the physical components like strength, speed, power, agility, endurance, flexibility, balance, kinesthetic sense and coordinative abilities (Taylor, 1991). Hand-Eye, Foot- Eye Coordination plays a critical role in learning and performing many sports skills. Without it, control, steadiness, and accuracy in skill performance would not come. A combination of innate and acquired qualities, this factor is closely related to several other qualities, such as depth-perception, kinesthetic sense, and rhythm, insight into learning, agility, and relaxation. All activities involving hitting, kicking, batting, catching, fielding, throwing etc., belong to this category (Kamlesh, 2009). Speed of movement is that qualities which follows one to carry out either a movement or identical movement as quickly as possible. A logical version of the determining factors of speed of movement appears to be overcome the frequency of stimuli, depending on the willpower, on mental determination and on

nervous mobilization, the state of certain muscular strength and muscular power (Claude Bouchard, 1969).

(Baljinder Singh Bal, 2013) Conducted a comparative Study on selected psychomotor abilities between male baseball pitcher and cricket fast bowler. The aim of this study is to find out the significant differences of selected Psychomotor Abilities between male Baseball pitcher and cricket fast bowler .A group of thirty (N=30) male subjects aged between 18-28 years, who participated in intercollege competitions organized by the Department of Sports, Guru Nanak Dev University, volunteered to participate in this study were selected for this study. The “t” test was applied to find out the significant differences between male Baseball pitcher and cricket fast bowler. To test the hypotheses, the level of significance was set at 0.05. The results revealed significant differences between Baseball pitcher and cricket fast bowler on the sub-variables i.e. speed, agility and Cardiovascular Endurance. However, no significant differences were noticed with regard to the sub-variables i.e. strength and static balance. (Campbell, 1980) conducted a study to establish the prediction of basketball performance using psychomotor cognitive and anthropometric measures female members (N=48) on the top 4 team in 1979 Missouri small college basketball tournament served as subject. The contributions of G.P.A. Anaerobic leg power 15 yard dash, 30 yard dash total body RT. Try. Lt and Wl. To basketball performances weredetermined. Basketball performance was determined by a specially designated formula by H.K.Kay Ht ($x=.388$) was the only significance (p.05) predictor. The 15 yard dash total body R.T. and power were next. The R for the 4 to P variable was 56 (p.01).

Statement of the Problem

A comparative study of selected psychomotor variables between players of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and Hemwati Nandan Bahuguna Garhwal University, Srinagar (Garhwal).

Delimitations

1. The study was delimited to total 200 male players only.
2. The study was delimited to players of age group of 20 to 25 years.
3. The study was delimited to the 100 players of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and 100 players of Hemwati Nandan Bahuguna Garhwal University, Srinagar (Garhwal).

4. The study was delimited to inter university players of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and Hemwati Nandan Bahuguna Garhwal University, Srinagar (Garhwal).
5. The study was delimited to the following games: Football, Cricket, Volleyball, Basketball and Handball
6. The study was delimited to the following selected psychomotor variables: Kinesthetic perception, Speed of movement and Response time

Limitations

There was no control over the diet, interest, attitude, religion and environment of the subjects. Hence this was the limitations of this study.

Methodology

Selection of Subjects

The subjects for this study were selected from Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and Hemwati Nandan Bahuguna Garhwal University, Srinagar (Garhwal) with the help of Purposive sampling. Inter-university players in selected games i.e. football, cricket, volleyball, basketball, and handball were considered as subject for this study. 100 subjects were selected from Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and 100 subjects from Hemwati Nandan Bahuguna Garhwal University, Srinagar (Garhwal). 20 subjects were selected from each game i.e. football, cricket, volleyball, basketball, and handball. The age of subject ranges from 20 to 25 years.

Selection Of Variables

- i. Kinesthetic Perception
- ii. Speed of Movement
- iii. Response Time

Collection Of Data

The data was collected from Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and Hemwati Nandan Bahuguna Garhwal University, Srinagar (Garhwal) during inter-university coaching camp.

Criterion Measures

The selected players were administered by using the test namely *distance perception jump test*, *Nelson speed of movement test* and *four way alternate response test* to obtain the required data.

Method of Sampling

While leading this study purposive sampling method was adopted in selection of the subject. The static group design was used for the study.

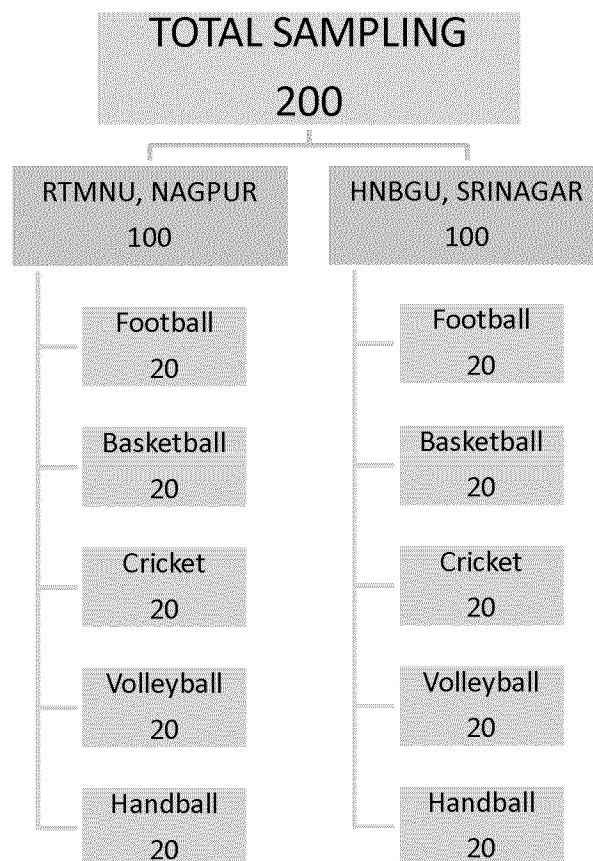


Figure 1: Distribution of samples

Analysis of Data

Both the groups were tested and tabulated, then compared the performance score of test with help of 't' ratio. For testing the difference between the means of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur players and Hemwati Nandan Bahuguna Garhwal University, Srinagar (Garhwal) players, the level of significance was set at 0.05 to test the hypotheses.

Result of the Study

Table No. 1: Comparison of “Kinesthetic Perception” between players of RTMNU, Nagpur and HNBSGU, Srinagar (Garhwal)

Group	Mean	Std. Deviation	Mean Difference	Calculated “t” ratio	Table/ Required “t” ratio
Players of R.T.M Nagpur University	8.50	4.89	0.50	0.778*	1.972
Players of H.N.B Garhwal University	8.00	4.17			

*Significant at 0.05 level of confidence

Graph no. 1: shows the difference between means in Kinesthetic Perception among the players of RTMNU, Nagpur and players of HNBSGU, Srinagar (Garhwal)

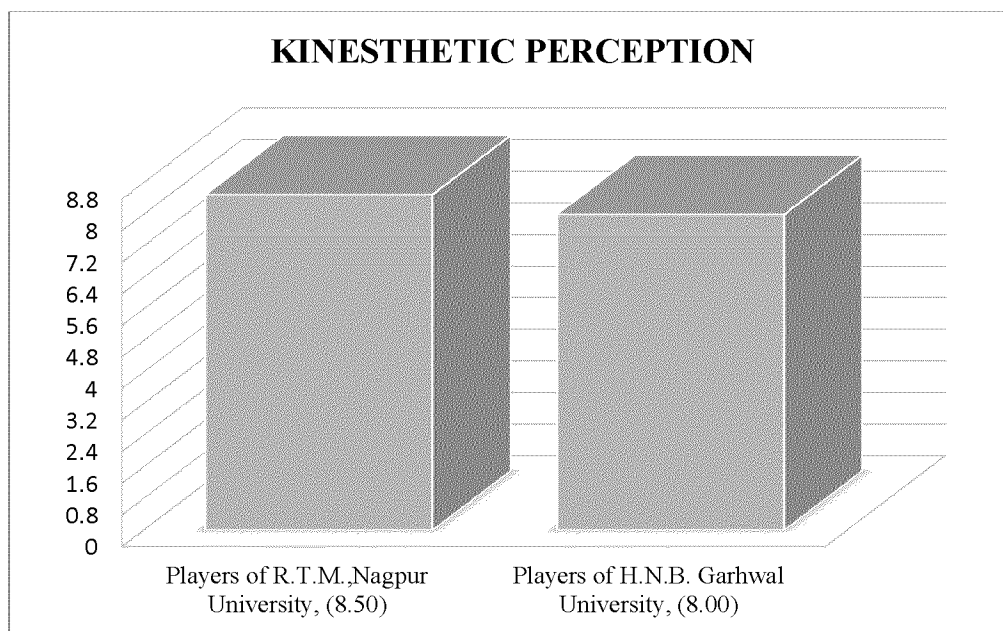


Table No. 2: Comparison of “Speed of movement” between players of RTMNU, Nagpur and HNBSGU, Srinagar (Garhwal)

Group	Mean	Std. Deviation	Mean Difference	Calculated “t” ratio	Table/ Required “t” ratio
Players of R.T.M Nagpur University	0.51	0.04296	0.0567	7.351*	1.972
Players of H.N.B Garhwal University	0.56	0.06406			

*Significant at 0.05 level of confidence

Graph No. 2: shows the difference between means in Speed of Movement among the players of RTMNU, Nagpur and players of HNBGU, Srinagar (Garhwal)

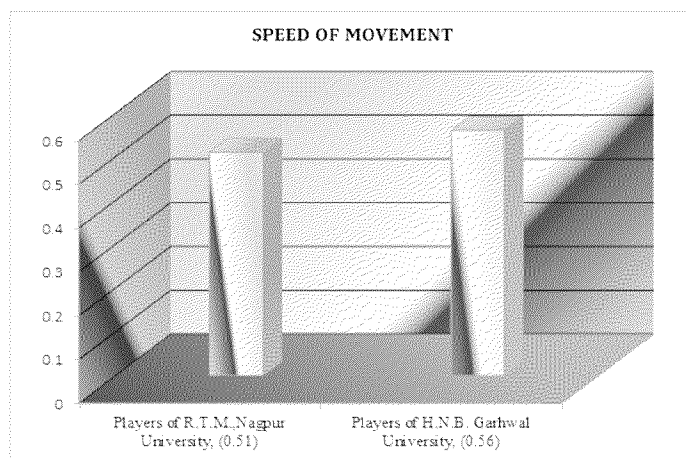
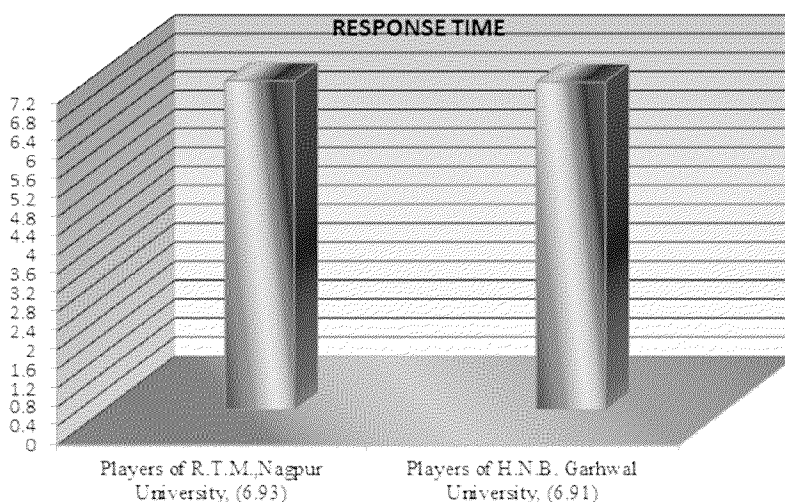


Table No. 3: Comparison of “Response Time” between players of RTMNU, Nagpur and HNBGU, Srinagar (Garhwal)

Group	Mean	Std. Deviation	Mean Difference	Calculated “t” ratio	Table/ Required “t” ratio
Players of R.T.M Nagpur University	6.93	1.11455	0.0182	0.116*	1.972
Players of H.N.B Garhwal University	6.91	1.11057			

*Significant at 0.05 level of confidence

Graph no. 3: shows the difference between means in Response Time among players of RTMNU, Nagpur and players of HNBGU, Srinagar (Garhwal)



Findings and Discussion

The analysis of data revealed that there was a significant difference in speed of movement between players of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and Hemwati Nandan Bahuguna Garhwal University, Srinagar (Garhwal). On the other hand no significant difference was found in Kinesthetic Perception and response time between players of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and Hemwati Nandan Bahuguna Garhwal University, Srinagar (Garhwal).

Kinesthetic Perception

In Kinesthetic perception, variable of psychomotor no significant difference found in Players of RTMNU and Players of HNBGU. Sports are the active phenomena. Players has to take different positions, posture as per requirement of game situation, their judgement of the body either in the air or on the ground is always perfect. There voluntary muscular control is always at higher side. There neuro-muscular coordination is also good. It is said that the players have no involuntary muscles means they have absolute control over their muscles & the responses.

Speed of Movement

In speed of movement, variable of psychomotor, significant difference found in Players of RTMNU and Players of HNBGU. The Players of RTMNU were found significantly more than Players of HNBGU. As Nagpur is oldest university than Garhwal University, the facilities are good. In Nagpur there are SAI centre, state government coaching centre, veteran trainer are easily available thus more scope to trained the players and get renowned players. Modern training, expertise guidance and facilities which urban area gets easily but hill areas don't. Thus, speed of movement of Nagpur university players is more than Garhwal University.

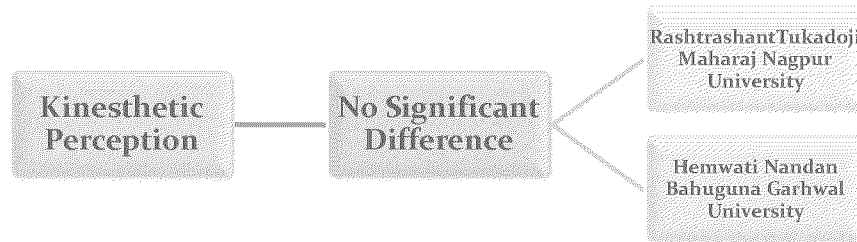
Response Time

In response time, variable of psychomotor no significant difference found in Players of RTMNU and Players of HNBGU. Players are having good reaction time and response time is the basic necessary for all sports.

Conclusion

- i. In Kinesthetic perception, the Players of Rashtrasant Tukadoji Maharaj Nagpur University were found significantly more than Players of Hemwati Nandan Bahuguna Garhwal University.

Fig.2 Result of the study of “Kinesthetic perception” variable



ii. In Speed of Movement, the Players of Rashtrasant Tukadoji Maharaj Nagpur University were found significantly more than Players of Hemwati Nandan Bahuguna Garhwal University.

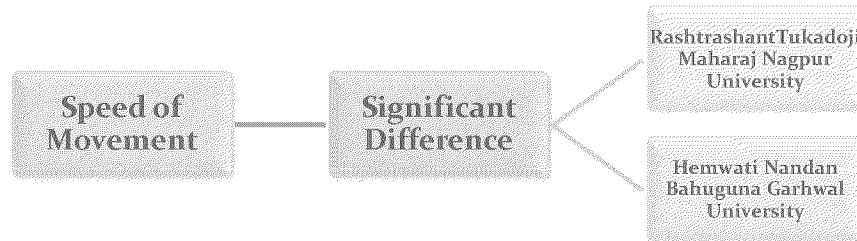


Fig.3 Result of the study of “Speed of Movement” variable

iii. In Response Time, the Players of Hemwati Nandan Bahuguna Garhwal University were found significantly more than Players of Rashtrasant Tukadoji Maharaj Nagpur University.

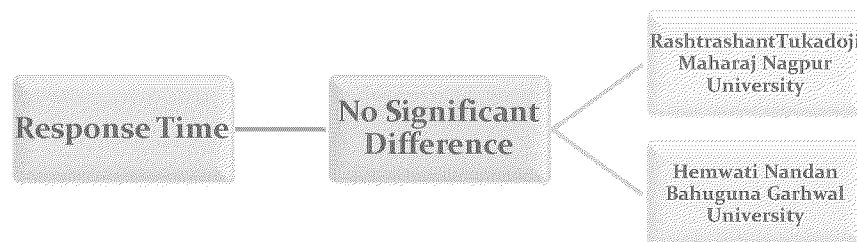


Fig.4 Result of the study of “Response Time” variable

Recommendations

1. On the basis of findings of the study it is recommended that similar study may be conducted on Female Players.
2. Similar study may be conducted by taking other variables than those selected for the purpose of the study.
3. Similar type of study may be conducted on the players of another game.
4. It is recommended that similar study may be conducted on specific skills of different Sportsmen.
5. It is recommended that similar study may be conducted on different age group of subjects.

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14. Impact of Food on Mental Health: Nutrition for Nourishment

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Abstract

Nutrition is how food affects the health of the body. Food is essential - it provides the nutrients needed for life and helps the body function and stay healthy. Food consists of macronutrients such as proteins, carbohydrates and fats, which not only provide calories to feed the body and provide energy, but also play a role in maintaining health. Food also contains micronutrients (vitamins and minerals) and phytochemicals, which do not produce calories but perform various critical functions to ensure that the body functions optimally. The word health refers to complete mental and physical well-being. Health care helps people maintain this optimal state of health. Good nutrition is one of the keys to a healthy life. By following a balanced diet, you can improve your health. Foods containing vitamins and minerals should be eaten. This includes fruits, vegetables, whole grains, dairy products and sources of protein. The development of mental health disorders is related to the inflammatory side, nutritional deficiencies and digestive disorders. Diet is a major influence on mental health. What we eat too much is as important as what we don't eat enough (Jacka, 2017). A balanced and varied diet prevents and maintains well-being and mental integrity. Therefore, more attention should be paid to medium and long-term dietary changes and our food consumption should focus more on complex carbohydrates, plant-based foods/fruits and vegetables that contain fibers that have a positive effect on the composition of microbes, good fats (omega 3.) to regulate inflammation.

Introduction

The ability to detect environmental nutrient availability and alter growth, energy consumption, and biomass production accordingly is critical to the competitiveness and adaptation of unicellular organisms. However, multicellular organisms maintain homeostasis by allocating nutrients based on an integrated economy of availability and need. This is achieved by dividing the work between different cells or tissue parts of the organism. But the use of specialization in the economics of food production and distribution is also seen more widely

among people and in large industrial systems to support an increasingly globalized world. All of them are covered in this publication. Eukaryotic cells use transmembrane organelles to follow various nutrients for anabolism (building) or catabolism (breaking down). As noted in the review by Chen and colleagues, micro- and macronutrients are fuel sources and substrates for the synthesis of biomolecules that serve as the building blocks of cells. However, as the authors point out, they also serve less canonical purposes, such as signaling molecules, post-translational regulators of protein function and epigenetic modifiers to regulate gene expression. Through these processes, individual cells can internally regulate metabolism, function and function in response to nutrients. However, unlike unicellular organisms, cell growth and energy expenditure are usually triggered by signals from other cells and tissues that allow nutritional status to be transmitted throughout the body. The specialization of healthy tissues to detect, metabolize and store nutrients allows regulation of nutrient availability throughout the body during fasting or eating. The wide spectrum of pathologies associated with disturbances in nutritional homeostasis explains how metabolism is integrated with other systems. The economy of production and distribution of food is an integral part of our bodies and social relations. It is no wonder that so much of human culture is centered around rituals related to eating or abstaining from food, and as Marcolini and others have pointed out, how closely related this is to our understanding of human life. Our relationship with growing and consuming food is somehow reflected in the relationship between our diet and our bodies. The industrial workforce involved in food production, storage and distribution is now more dispersed than ever to support the growing demand of a growing population. Morawicki et al. embraces this by discussing new ways to continue producing food to support the estimated 9.2 billion people on Earth by 2050. Major changes in consumption also affect the environment in which we farm. These nutrients and in turn affect both humans and the other organisms with which we share this world. Morawicki et al. defines the three pillars of food sustainability: people, planet and profit, defining the requirements of ethical sustainability as "economically feasible, ecologically sustainable and socially responsible". They highlight three main aspects of our culture and our relationship with food, which are the main themes of this topic. For example, ruminants, as discussed in the above-mentioned review by Morawick et al., are selected as food sources because of their high energy input for the production of amino acid-rich muscles and their satisfying palatability. However, they also produce too much greenhouse gas, which poses a serious environmental risk. Environmental sustainability is limited not only by the environmental impact of farming or agricultural practices, but also by how other factors, such as accelerated climate change caused by human activities, affect those practices. As

Abey Siriwardena et al. Show that higher ocean temperatures, combined with high levels of nitrogen and phosphorus, promote blue-green algae blooms, change ocean ecology, and increase cyanotoxins in our food and water.

Nutrition in maintaining health

A nutritious diet is one that meets all of the body's daily macro and micronutrient needs. And nutrition is also an important part of overall well-being and health. However, there is no perfect diet for everyone. Of course, many diet books would have you believe that anyone can follow a specific nutritional recipe to achieve optimal nutrition and weight, but if that were the case, there would be only one diet book and only one diet. Nutrient intake is based on individual factors such as a person's size and activity level, types of activities performed and genetic predisposition. In addition, a person's diet must contain a sufficient range of nutrients to achieve nutritional balance, be palatable, while meeting the daily stress needs of the body and promoting an acceptable quality of life. Diet affects energy, well-being and many diseases. There is a link between lifelong eating habits and many chronic diseases, such as cardiovascular disease, diabetes and cancer. A balanced diet can prevent such diseases and improve energy levels and overall health and well-being.

Nutrients

Proteins, carbohydrates, fats, vitamins, minerals, fiber and water are all nutrients. If people do not have the right nutritional balance in their diet, their risk of developing certain health problems increases. Proteins are large molecules that consist of a combination of several amino acids. It has been found that proteins contain about 20 amino acids and are important for human nutrition. Tuna, shrimp, turkey and cod are excellent sources of protein. Snapper, venison, halibut, salmon, scallops, chicken, lamb, beef, calf liver, spinach, tofu, mustard greens, mushrooms, soybeans and mozzarella cheese are very good sources of protein. Good sources of protein include eggs, milk, greens, cauliflower, and many vegetables, including lentils, peas, beans, black beans, pinto beans, and garbanzo beans. Carbohydrates are the main source of energy for daily activities. Carbohydrates (mainly starches) are the most affordable, available, readily available and easily digestible nutrients. Carbohydrates are abundant in plants. Foods containing carbohydrates are called energy foods. Carbohydrates are classified according to the number of saccharide groups (sugar groups) present. They are broadly divided into simple carbohydrates and complex carbohydrates. Simple carbohydrates include monosaccharides (one sugar) and disaccharides (double sugar). Complex carbohydrates include starch, glycogen and fiber. Important food sources of carbohydrates are cereals, millets, roots, tubers, legumes, sugar and coal.

Effect of food and nutrition on mental health

Food greatly affects our attitude, while our mood determines our appetite and the type of food we choose. Emotions influence eating, while the nutritional properties of food influence mood and emotion-related brain functions. Diets are a complete and complex cycle. Assuming we influence one possibility, the other will follow, as growing evidence has shown that food choices have a positive impact on a number of mental health disorders. In this study, we tried to show that nutritional deficiencies have been shown to have a negative effect on mental health, and that certain nutrients can therefore help alleviate mood and mental disorders. Certain nutrients can affect cognitive processes and emotions, while deficiencies in vitamins, fatty acids, minerals and some macronutrients (proteins, carbohydrates and lipids) can contribute to poor mental health. The most common nutritional deficiencies in patients with mental disorders are omega-3 fatty acids, B vitamins, minerals and amino acids, which are precursors of neurotransmitters: tyrosine to dopamine, tryptophan to serotonin. Serotonin and tryptophan can promote well-being and their production is triggered by a carbohydrate-rich diet. Carbohydrates have been found to affect mood and behavior. Inadequate n-3 polyunsaturated fatty acids (PUFA) may increase susceptibility to several psychiatric disorders, particularly depression. Anxiety, depression, and autism spectrum disorders have been associated with functional gastrointestinal (GI) disorders, whereas GI disorders are often predominant psychological comorbidities. Altered gut microbiota composition, particularly reduced diversity, has also been associated with stress. Paying more attention to our daily meals and getting the right nutrients in the right amount can improve our mood. Although food and diet are known to worsen or improve physical conditions, it makes perfect sense that mental health is also affected by what we eat, especially what we lack in food. Does it affect our eating disorders like anxiety and depression? Or can they be mitigated with better nutrition after installation? Recent studies have shown that nutritional deficiencies not only affect our physical condition but also our mental health (Lakhan and Vieira, 2008; Rao, Asha, Ramesh, and Rao, 2008; Hidaka, 2012; Kroes et al., 201 ; McNamara, 2009 ; ; Levantenio, 2013; Innis, 2008; Benton, Haller, & Fordy, 1995; Banerjee, 201 ; Anderberg, 2016; Sánchez-Villegas et al., 2009). A growing body of research has shown that the prevalence of mental health disorders has increased in developed countries with worsening nutrition, and thus nutritional deficiencies are linked to some mental health disorders. The most common nutritional deficiencies in patients with mental disorders are omega-3 fatty acids, B vitamins, minerals, and amino acids, which are precursors of neurotransmitters (Lakhan and Vieira, 2008). Certain nutrients can affect cognitive processes

and emotions, while deficiencies in vitamins, fatty acids, minerals and some macronutrients, especially protein, can contribute to poor mental health.

Conclusion

The factors contributing to mental health disorders described in this article are complex, and healthy lifestyles must include nutritional awareness, responsibility and diversity. The development of mental health disorders is related to the inflammatory side, nutritional deficiencies and digestive disorders. Diet is a major influence on mental health. What we eat too much is as important as what we don't eat enough (Jacka, 2017). A balanced and varied diet prevents and maintains well-being and mental integrity. Therefore, more attention should be paid to medium and long-term dietary changes and our food consumption should focus more on complex carbohydrates, plant-based foods/fruits and vegetables that contain fibers that have a positive effect on the composition of microbes, good fats (omega 3.) to regulate inflammation. In this regard, considering the fact that a large prospective study showed that the Mediterranean diet has a potential protective role against depression, a return to the traditional Mediterranean diet is an obvious recommendation (Sánchez-Villegas et al., 2009). . When it comes to food supplements for healthy people, a varied diet should weigh more than choosing foods, because people do not consume nutrients separately, and foods are balanced with macro- and micronutrients and fiber composition (Jacka, 2017). However, as a result of studies with positive results, some nutritional supplements are necessary and recommended especially for the treatment of mental health disorders, where they can successfully replace drugs that cause side effects.

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15. A Comparative Study of Strength between Batter and Bowler in Cricket

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Abstract

The research entitled “A comparative study of strength between batter and bowler in cricket”. Strength is an ability to overcome a fixed resistance. The role of strength in the game of cricket is very well known. The purpose of the study was to analyze and compare difference in strength of Batter and Bowler in different club of Nagpur district. The subjects were randomly selected into two groups of fifty male each consisting of Batter and Bowler in the mean age group of 16 years. Selected variables were Arm strength and Leg strength. The arm strength and leg strength of different clubs Batter and Bowler was compared while applying independent T-test. It was observed that bowler is significantly higher in Arm strength and Leg strength. It was concluded that Bowler were highly significant than Batter in respect of arm strength and leg strength.

Keywords: Batter, Bowler, Strength, Difference, Physical, Fitness, Arm strength, Leg strength.

Introduction

Cricket based on the specified skills of fielding, batting, and bowling. It is a bat-and-ball game played between two teams of eleven players on a field at the center of which is a 22-yard (20-metre) pitch with a wicket at each end, each comprising two bails balanced on three stumps. The batting side scores runs by striking the ball bowled at one of the wickets with the bat and then running between the wickets, while the bowling and fielding side tries to prevent this (by preventing the ball from leaving the field, and getting the ball to either wicket) and dismiss each batter (so they are "out"). Means of dismissal include being bowled, when the ball hits the stumps and dislodges the bails, and by the fielding side either catching the ball after it is hit by the bat, but before it hits the ground, or hitting a wicket with the ball before a batter can cross the crease in front of the wicket. When ten batters have been dismissed, the innings ends and the teams swap

roles. The game is adjudicated by two umpires, aided by a third umpire and match referee in international matches. They communicate with two off-field scorers who record the match's statistical information. The fielding is the combination of catching, running, diving, sliding, stopping and throwing. The bowling skill depends on running, jumping and delivering the ball by vertical rotation of the arm. The batting skill depends on running and swinging of the bat in the direction of the ball.

There is no exact record available which shows when and by whom this game was started in England. There are writers who believe that the word "cricket" appeared for the first time in 1685 others claim to have traced it to never 1550. The game evidently developed rapidly in the seventeenth century with underarm bowling curved bats and a wicket two feet wide and one foot high with a hole in the ground between the stumps into which the ball had to be placed for a run out. There were no prepared pitches. At first the winner of the toss selected the stretch of turf on which he choose to play and naturally did so to suit his own team. The first L.B.W. law did not appear until 1774 and no decisions under it can be founded prior to 1794 though this may have been due to inadequate records. A tremendous change in the method of bowling was evolved towards the ends of the eighteenth century until 1835 when legislation by M.C.C. permitted the hand to be as high as the shoulder. In India the game of cricket was introduced by English men about a century ago. They started playing as a past time and later on as the Indians started to play this game matches were played. The first Presidency match that was played in India, was played at Bombay in 1895, between the European and Parsees. There used to be two matches of this nature every year, one was played at Bombay and the other at Poona. When the Hindus started playing in 1907, the tournament was known as Triangular Tournament. From 1912 to 1936 Quadrangular Tournaments were being played and the Muslims started taking part. The Pentangular Tournament started in 1937 and the fifth consisted of Indian Christians and Anglo-Indians. Since 1934 the Inter Provincial Cricket Tournament was started. It is known as the Ranjit Trophy Tournament after the great Indian cricketer Prince Ranjit Singhji. The cup was donated by the late Maharaja of Patiala. In 1886 a Parsee cricket team went to England and played few matches. This was the first team to go to England from India. The first England team came to India in 1826. India was given the test status in 1932 and an Indian team went to England under the captaincy of Maharaja of Porbandar. The first official M.C.C team visited India in 1933. As the years progressed India acquired international status in the game.

International status in this game and now it is having regular visits to and from England, Australia, West Indies, New Zealand and Pakistan.

Physical fitness is the capacity to carry out, reasonable well, various forms of physical activity, without being unduly tired and include quality important to the individuals health and wellbeing. Physical fitness has been defined in various ways. Someone defines it as absence of disease, and some rate this according to the amount of musculature developed, and few define physical fitness as ability to perform certain sports skills. The most comprehensive definition defines “Physical fitness as the measure of the body’s strength endurance and flexibility. Physical fitness can be classified into two categories namely health related physical fitness and motor skill related physical fitness health related physical fitness could be defined as a scientific body of the positive effect of regular and vigorous exercises with the prevention of degenerative diseases such as coronary heart disease, obesity and various muscular-skeleton disorders. The physical fitness of human beings is the main objective of physical education and sports programmes. It is therefore, essential for all cricket players and coaches to know about physical fitness, its components and their measurement. Physical fitness testing had interested the human beings of all walks of life from general public to experts in the disciplines of physical education, health education, pedagogy, medicine, human biology, exercise physiology, sports coaching etc. Generally speaking, the physical fitness tests are conducted to achieve one or more of the purposes.

Actually it is strength testing which gave birth to the systematic study of measurement and evaluation in 1861 at Amherst College in United States of America (Seaver, 1896; Bovard and Cozens, 1938). Sargent (1897) published the first strength test battery based on his study of Harvard students which he commenced in 1880. The earlier strength tests included a combination of strength, muscular endurance and even respiratory functions. In other words, in the beginning, strength testing had been synonymous with physical fitness testing. However with the advancement in knowledge, body composition, flexibility and overall organic soundness have been included in fitness testing. Strength plays a very important role in the performance in all the aspects of life.

Literature review

1. TD. Noakes & J.J. Durandt (2000) have conducted a study on the’’ Physiological requirements of cricket’’ It has been suggested that the physiological demands of

cricket are relatively mild, except in fast bowlers during prolonged bowling spells in warm conditions. We propose that no current model used to analyze the nature of exercise fatigue can adequately explain the fatigue experienced during cricket. Alternatively it could be hypothesized that superior power and endurance fitness may be required to cope with the repeated eccentric muscle contractions required in turning and in bowling and which may account for fatigue and risk of injury in cricket. If this is the case, the fitness of cricketers may be increased and their risk of injury reduced by more specific eccentric exercise training programmes.

2. Will Vickery, Ben J Dascombe, Aaron T Scanlan (2018) conducted a review on the “Physical and physiological demands associated with cricket fast and spin bowlers” by understanding the demands associated with cricket match play is essential for the development and implementation of training programs to improve the conditioning status of players. Greater research into the physical and physiological demands elicited during cricket training and match-play may further improve knowledge on the efficacy and validity of current training techniques used in cricket.
3. Akhilesh Kumar Ramachandran, Utkarsh Singh, Timothy JH Lathlean (2022) reviewed “Strength and conditioning practices for the optimisation of speed and accuracy in cricket fast bowlers. Inclusion criteria were studies that: were original research or conference presentations; recruited fast bowlers as participants; involved a physical training intervention; written in English; and included bowling speed or accuracy as outcome measures. Ten articles met our inclusion criteria for qualitative and eight for quantitative analysis. The findings from our study are useful for strength and conditioning coaches in helping to design and implement fast-bowling specific training programmes for improved bowling speed.
4. Richard A. Stretch, Roger Bartlett & Keith Davids studied (2000) “A review of batting in men’s cricket” In this review, we critically evaluate the scientific research into the morphology and physiology of cricket batsmen. We consider all aspects of the motor control of this skill, in the context of research into dynamic interceptive actions, the biomechanics (kinematics and kinetics) of the various phases of batting strokes and injuries to batsmen. Because of the lack of published scientific research into women's cricket, this review focuses on the men's game and covers research on batsmen of

various playing standards. Biomechanical studies of the variability of the batsman's movements are needed, and these should be related to the compensatory variability proposal of ecological psychology. Clearly, there is also a need for scientific research into batting in women's cricket, which has been inadequately researched to date.

5. PE. Kruger J. Campher C.E. Smit studied (2009) "The role of visual skills and its impact on skill performance of cricket players and sport science" the aim of this study was to determine the role and the impact of a visual skills training programmes the skills performance of cricket players, and whether visual training programmes are beneficial to competitive sports performance. Data revealed that the visual skills programme had a significant influence on most of the tested variables. Visual skills training, utilizing the conditions in this investigation, can result in an increase in the players' visual fields. Visual skills training programmes can be beneficial to competitive sports performance.
6. R.M. Bartlett, N.P. Stockill, B.C. Elliott & A.F. Burnett (1996) reviewed "The biomechanics of fast bowling in men's cricket" which concentrates on synthesizing and analysing the biomechanical research which has been carried out on fast bowling in men's cricket. There is general agreement that the phenomenon of differential boundary layer separation is the reason for normal and reverse cricket ball swing. There is sufficient evidence in the literature to establish a strong link between injury to the lower back and the use of the mixed technique. Recommendations are made for screening and intervention to reduce the use of the mixed technique, and for research into other aspects of injury. Fundamental research to develop biomechanical models of the lower back in fast bowling is strongly recommended.
7. Johnstone, JA, Mitchell, ACS, Hughes, G, Watson, T, Ford, PA, and Garrett, AT (2014) reviewed "the athletic profile of fast bowling in cricket" which concentrate on performers maintaining optimum physical fitness and remaining injury free. Fast bowlers have a vital position in a cricket team, and there is an increasing body of scientific literature that has reviewed this role over the past decade. It is clear with the advent of new applied mobile monitoring technology that there is scope for more ecologically valid and longitudinal exploration capturing in-match data, providing quantification of physiological workloads, and analysis of the physical demands across

the differing formats of the game. Currently, strength and conditioning specialists do not have a critical academic resource with which to shape professional practice, and this review aims to provide a starting point for evidence in the specific area.

Research Methodology

This chapter adopts the following procedure including information regarding research design, source of data, sampling method, selection of subjects, criterion measures and collection of data etc. The statistical analysis of the gathered data provides a well-neat picture of a completed and successful hypothesis as prescribed by researcher. The chapter has been dividing into following headings. Procedure adopted for collection of data is as follows.

Sources of data

The data required for present study is been collected from various cricket clubs of Nagpur city.

Selection of subject

The purpose of this study is to find out whether there is any significant difference in the strength of Batter and Bowler under the age group of 14 -18 years. The subject is been selected from the different academies on random basis. The number of subjects is been limited to 50 batsman and 50 bowlers. These two groups are been tested by administering physical tests of both component under strength.

Selection of variables

The strength plays an important role for performance in any game thus the research scholar after going through reviews, arm strength and leg strength was been selected as a variable.

Method of sampling

For this study random sampling method is been adopted in selection of the subject.

Criterion measure

Research testing of all the variables was conducted simultaneously:

- Arm strength Push up
- Leg strength Broad jump

Administration of testing

The standard testing was been conducted on batter and bowlers of different clubs of Nagpur city for the study. For leg strength broad jump was administered in which the subjects

were asked to stand with feet parallel to each other behind the standing mark. Then the subject was asked to bend the knees and swing his arms & jump as far forward as possible. The number of cm's between the standing mark and the nearest heel on landing was recorded as the score. Three trials were given to each subject and then the score of the best trial were recorded as the final score whereas for arm strength push up was been administered. The student taking a front learning rest position with body supported on hand and fingers of feet, the arms are straight and right angle to the body. He then dips so that the chest touches or nearly touches the floor, then pushes back to the starting position by strengthening the arms and repeats the procedure as many times as possible in the given time period of one minute. The score was recorded as the number of correct push-ups performed in one minute.

Results

The performance in the related variable were scored and recorded as described in the preceding chapter. 't'-ratio was applied to the data to determine if there were any significant difference amount the Batsman and Bowler of Club boys, in respect of their strength.

Level of significance

The probability level below which we rejected the hypothesis is termed as the level of significance. The 't' ratio obtained were compare to at 0.05 level of significance. In using the analysis of 't' ratio 2.02 were for significance at 0.05 level of confidence. The tests are usually called the tests of significances as we have to find out whether the difference among the Batsman and Bowler scores of the samples are significant or not. In the present study, if they obtained values were greater than the expected values at 0.05 levels then the null hypothesis was rejected to the effect that there existed significances difference between the means of the groups compared. And if the obtained values were lesser than the table values at 0.05 levels then the null hypothesis was accepted to the effect that there existed no significant differences between the means of the groups under study.

Arm Strength (Push up)

Compare of data on PUSH-UP's of Batsman and Bowlers of different clubs.

TABLE - 1

Group	Mean	D	M	S	D	t-ratio
Batsman	13.6	3.1	75	16		
		2.0	0.01	546		
Bowler	15.6	5.5	95	19		

It is evident from the above table that the mean number of meters of push-ups by Bowler is more than the mean meters of push-ups Batsman by 2.0 points. The obtained 't' value of 0.01546 was less than that table value of 0.02 at 0.05 Level.

Hence the difference was considered as statistically not significant and it was concluded that bowler are highly significant in respect of push-ups than Batsman.

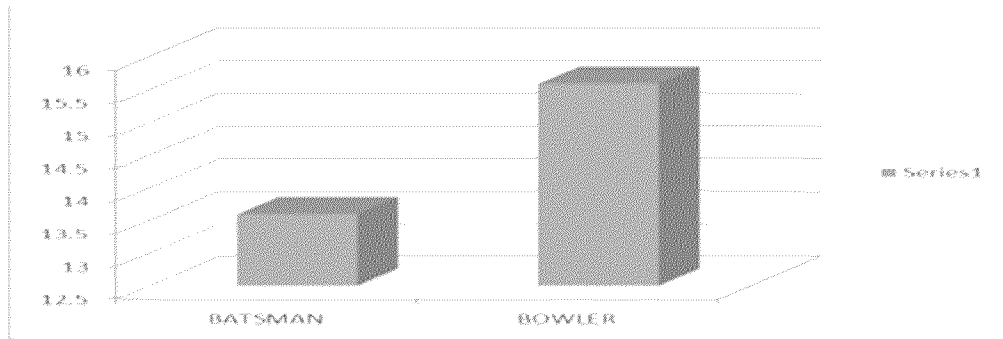


Figure no. 1 - LEG STRENGTH (BROAD JUMP)

Compare of data on BROAD JUMP of Batsman and Bowlers of different clubs.

TABLE -2 - Group Mean D M S D t-ratio Batsman 1.4828 0.280314

0.0592 0.141028

Bowler 1.5420 0.2668140

It is evident from the above table that the mean number of meters of Broad jump by Bowler is more than the mean meters of Broad jump Batsman by 0.0592points.

The obtained 't' value of 0.141028 was more than that table value of 0.02 at 0.05 Level. Hence the difference was considered as statistically significant and it was concluded that there was significant difference statistically exists amount batsman and bowler in respect of standing broad jump

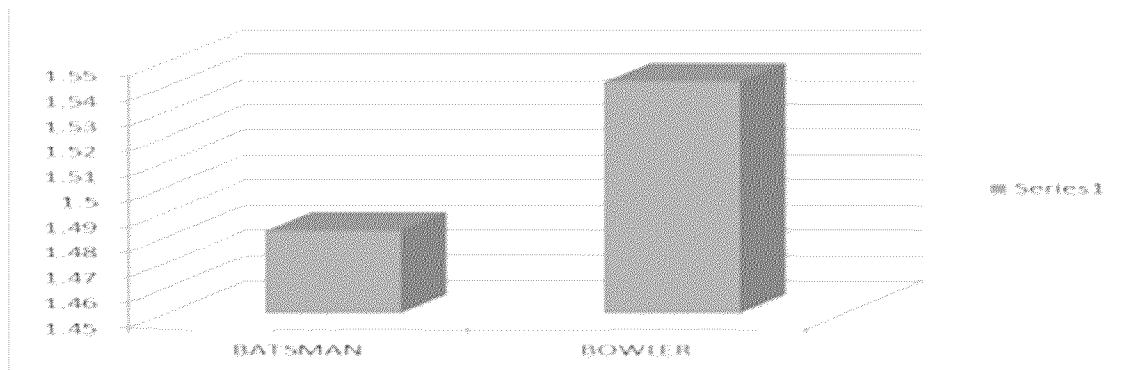


Figure no. 2 - Discussion on

The results of this study show that the strength of Batsman is superior to Bowler. More studies are to be conducted by using large samples to find out the truth. In all items batsman and bowlers are nearer to each other. As we could see in above tables also bowlers are having more significant value than batter in Push up's and Broad jump, which indicates that bowlers are having better arm strength (Push up's) and leg strength (Broad jump) than batter.

Suggestions

Based on the results of the study the following suggestions have been made.

1. Academies and clubs should keep the training curriculum with strength development program four to five times a week.
2. The same study may be conducted on large sample of Batter and Bowler training at high altitude and low altitude.
3. The same study may be conducted in other district of Maharashtra state.
4. To improve the physical fitness of the Indian players, the investigator suggests to take a comparative study of physical fitness status of different sub-group like one district and another district, state player vs other state player, professionals vs amateur, University players vs National players.
5. Batter and Bowler possesses different set of skills so the training methods needs to be different according to their skills.

Conclusion

The purpose of this study was to find out and compare strength of Batter and Bowlers of Nagpur District. 50 subjects of Batsman and Bowlers from different cricket academies and clubs in the age group of 14-18 years were selected. The subjects selected were administered with strength test which measures two elements of strength test battery. The data collected from these respondents were converted into normal scores and are statistically analyzed with the two groups to find out the strength. It was hypothesized that there will be no significant difference between Batter and Bowlers of clubs and academies. The results revealed does not support the hypothesis, that there is no significant difference between Batsman and Bowler of Nagpur city in respect of their strength. This may be because of the fact that in the recent times due to emphasis on physical fitness by International Batsman has attracted young batsman towards it. Special attention on physical fitness of bowlers has been given by the coaches in recent times due to change in approach towards the game with change in format. Where as in Cricket academies

even though Batsman were provided with special training programmes, it was observed that the training methods were not better comparatively. Moreover the commitment on the part of Academies and Clubs for Batter was not appeared to be high as there is a perception among coaches and trainers that batting as a skill itself fulfills or enhance the required level of strength itself.

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16. Social Psychology for the Sports Person

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Abstract

"Social psychology is a branch of psychology that studies cognitive effect on the behavioral process of individual or group of individual influenced by their own life, such as social status, social role and the social class." In sports it is very much importance to attend the desire goal where individual and group behavior plays and contribute positive as well as negative aspect for the success or failure.

Human being basically having social in nature, having tendency to react reflects the personality, interpersonal relationship and the behavioral pattern of the individual or in group. The term social psychology adopt nearly in the 18th century where it has been specifically noted that how and why the individual or the group of individual reflects their perceptions and actions which are influenced by the environmental factors only due to their social interactions. The major 7 big ideas in social psychology are social cognition and perception, self in a social context, attitude and persuasion, group decision, attraction and close relationship, prosaically behavior stereotypes, prejudice and discrimination.

Introduction

Modern competitive sports reached at its newer heights, where every aspect is very much calculative with respect to physical fitness, mental toughness, social expectations and techniques, strategies, tactics that is adopted to win a particular event. Here the social role of an individual or group of individuals plays an important role.

"Social psychology is a branch of psychology that studies cognitive affect on the behavioral process of individual or group of individual influenced by their own life, such as social status, social role and the social class." Human being basically having social in nature, having tendency to react reflects the personality, interpersonal relationship and the behavioral pattern of the individual or in group. The term social psychology adopt nearly in the 18th century where it has been specifically noted that how and why the individual or the group of individual

reflects their perceptions and actions which are influenced by the environmental factors only due to their social interactions.

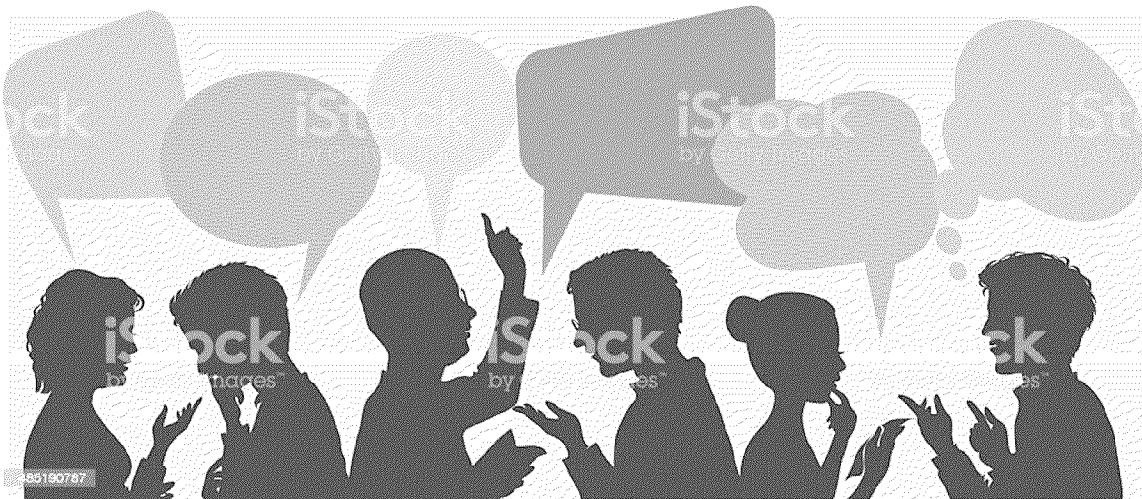
Social psychology mainly focus on how the individual or the group of individuals social thinking, it's reflection on the society and how the behavior phenomena occurs in our day to day life, which contributes to develop the personality. In sports, social psychology attributes both positive as well as negative contribution by the individual or the group of individual with respect to self concept, social cognition, attribution theory, social influence, group process, aggression attitude and stereotypes. Which naturally occurs with respect to social context or alter their behavior?

Social psychologist studies the interpersonal and group dynamics with respect to social challenges mainly prejudice implicit bias substance abuse, etc. The research shows the effect of social interaction and the factors that influence them ultimately affects on group behaviour, their attitude, public relation and leadership.

The major 7 big ideas in social psychology are social cognition and perception, self in a social context, attitude and persuasion, group decision, attraction and close relationship, prosaically behavior stereotypes, prejudice and discrimination. Which mainly influence the social move for the particular aim or task? It very much taken it into account, particularly in sports because of acquiring the performance to develop the strategies, visualize the move, self talk and relaxation and overcome the obstacles to achieve the goal with full potential and cope up with the pressure of competition. It also helps for the global perspective broad base of knowledge and the latest thinking on the topic search as social relationship communication, coach leadership, team cohesion and motivation. It it also affects the people thinking feeling and act on it. In relation with sports psychology the social behavior helps to manage the stress level increase in self-motivation controls the anxiety and developed the mental toughness which helps the team building.



Social psychologist mainly focus on societal concern that have a powerful influence on individual will being and health of society as a whole including problems such as substance use crime prejudice domestic abuse public health blowing and aggression social thinking mainly reacts how we pursue our self and others what we believe the judgment we make and our attitude social influence to culture pressure to confirm persuasion and groups and the social relation refers to prejudice aggression attraction and helping because watching others family peers and role models and learning from their behavior experience sis affect the way we perform and behave on daily basis the learning of accepted behavior values rights and wrong is known as socialization.



The sports are a skill performing by the individual for the development of self educational patriotic integrative with many social groups which helps the nation to develop.

By performing sports, the social psychology helps the individual or a group of individuals to develop educational qualification, patriotic sense, communicative functions, and which ultimately helps to integrate and co-ordinate individuals with social groups, which definitely develops the national harmony. In sports mainly four benefits can be seen socially develops, as sports teaches us to cooperate, to be less selfish, listen to others and sense of belonging, which helps to build up new friends, raise the social circle and accepting the discipline to lead the life in a very fruitful way.

Conclusion

Social psychology in sports plays an important role for developing life skills to change the negative feelings into positive way control the individual emotions it helps to digest the losing feel after losing the event and develops the confidence to work hard for the winning in

future participating in sports provides the opportunities to learn teamwork obey the rules and regulations develops a good sportsmanship and personal responsibilities it also helps the time management and organizational skills for both the sports persons and as well as the organizers

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17. A Comparative Study of Selected Personality Factors of Hockey Players of Rural and Urban Area of Nagpur District

Dr. Amrita Pande

Nagpur.

Abstract

The field hockey is one of the most popular games in India. It is played by a large number of players and generates a lot of excitement in various competitions organized at different levels. The game requires a lot of physical fitness as well as skills to become a good player. Moreover, the psychological aspects like adjustment, aggression, personality type also contribute in the success of hockey players. No manner of personality or intensity matters if a hockey player does not have a load of technique to back it up. Many times, certain sporting situations demand that they (hockey players) display their mental ability to prevail in those situations. In the backdrop of above information, this study was carried out to compare the selected personality factors of field hockey players of rural and urban areas of Nagpur District of Maharashtra. The study was conducted by using standard tests and data was collected using survey method. All the data collected in this study was analyzed using various statistical tests and with the help of SPSS 18.0 software. The study results showed that in general, most of the hockey players of rural area have reserved personality, are emotionally more stable, have balanced personality (with respect to P.F. – E), Happy-Go-Lucky, venturesome, and have practical personality. However, in comparison, most of the hockey players of urban area have outgoing type personality (with respect to P.F. – A), have balanced personality (with respect to P.F. – C), have dominant personality (with respect to P.F. – E), balanced personality (with respect to P.F. – F), have timid personality (with respect to P.F. – H), and have imaginative personality (with respect to P.F. – M). Thus, overall, it is evident that there is noticeable difference in the personality types of field hockey players of rural and urban areas of Nagpur District.

Keywords: Field hockey, psychological aspect, personality, emotionally stable, Venturesome.

1.0 Introduction

Hockey is a very popular team sport that involves high levels of interaction, mutual dependency between team members, technical and tactical challenges, and intensity (Gama et al., 2022). Apart from the physical fitness the game also demands that the players have technical knowledge of various strategies to improve their competitive performance.

Moreover, the tactical knowledge concerns the procedures to be adopted by the teams to optimize personal and group performances. In hockey, the following are important tactical skills: the rational occupation of spaces on the playing field; constant and coordinated changes of players' positions; the ability to combine technical motor skills (driving, passing, throwing, finishing, tackling) in the face of contextual needs; the use of rules in favor of the team; the identification of opponents' technical and emotional weaknesses; the exploitation of the opponents' flawed points during matches. The process of acquiring such skills is not easy and depends on extrinsic and intrinsic aspects to the player (Mammadov et al., 2019). The latest training methods in field hockey are very individual specific training programs, wherein the coach has many assistants to look after the needs and development of the players.

Concerning extrinsic aspects, the amount and variability of training sessions offered since sports initiation, the instructive strategies adopted by the coaches in the training process organization; the education level of the player, the social support given by the responsible ones, and the set of cultural situations to which the individual was exposed are very important considerations. In case of the intrinsic aspects, it is important to note the biological peculiarities, temperament, and personality (Temel and Nas 2019; Parma, et al., 2019). Personality develops both by the set of personal experiences obtained throughout life, and by an individual's pattern of relatively stable and permanent traits to perform many tasks and think in those situations. The peculiarity of traits contribute so that individual's behaviors remain regular amid different types of events (Chittle et al., 2022). Hence, a person can resemble another in many points, but this does not mean that the person does not have a personality with particular aspects (Flores-Mendoza, et al., 2016). Today, the game of field hockey is played extensively in rural as well as urban areas of India. Since, the social set up differs significantly in these areas, the personality development also differs. Moreover, it is expected that players with specific type of personality may have some advantage while performing in tournaments organized at various levels. Hence, in view of the above, a comparative study is carried out to assess the personality factors of

hockey players of rural and urban area. The study area is considered as Nagpur District of Maharashtra.

2.0 Research Methodology

In order to compare the select personality profile of the field hockey players of rural and urban area a random group design was used. In this study a total of 150 male field hockey players (75 each from rural and urban areas) were selected from Nagpur District. The age of the subjects ranged between 18 and 25 years. The data was collected for each variable personally. Prior to data collection the test procedures were explained to the subjects. The selected personality factors i.e. P.F. we P.F.–A (Reserved - Easy-going), P.F.–C (Emotionally Less Stable vs Emotionally Stable), P.F.–E (Submissive vs Dominant), P.F.–F (Serious vs Happy-Go-Lucky), P.F.–H (Timid vs Venturesome), and P.F.–M (Practical vs Imaginative) of field hockey players were evaluated by using Sixteen Personality Factor Questionnaire (16 PF Test) Form-A, developed by R.B. Cattell, the Indian adaption of which is developed by S.D. Kapoor (Bennur, 2022). The reliability of data was checked by establishing the subject's reliability, instrument's reliability, the tester competency and reliability of test. All the primary data collected in this study was analyzed using various statistical tests. Specifically, the data characteristics (descriptive statistics) such as frequency, percentage and inferential statistics i.e. Chi-Square was used. All the statistical analysis was carried out using SPSS 18.0 Statistical package. The significance level was 0.05.

3.0 Results and Discussion

3.1 Personality Factor-A (Reserved – Easy-going)

Table 1: Comparative assessment of Hockey Players with respect to Personality Factor-A (Reserved vs Easy-going)

P.F. – A	Rural Area		Urban Area	
	Nos.	Percent	Nos.	Percent
Reserved	39	52.0	6	8.0
Balanced	26	34.7	26	34.7
Outgoing	10	13.3	43	57.3
Total	75	100.0	75	100.0
	χ^2 : 16.88; χ^2_{tabular} : 5.991; $p < 0.05$		χ^2 : 27.44; χ^2_{tabular} : 5.991; $p < 0.05$	

Above Table 1 presents results pertaining personality of hockey players of rural and urban area of Nagpur District with respect to Personality Factor-A i.e. Reserved vs Easy going.

- **Players of rural area:** 52.0% hockey players have reserved type of personality while 34.7% are balanced (with respect to P.F. – A) and further 13.3% players indicated to have outgoing type of personality. The Chi-square test results show that significantly ($p < 0.05$) high percentage of players of rural area have reserved type of personality vis-à-vis Personality Factor-A i.e. Reserved vs Easy-going.
- **Players of urban area:** 8.0% hockey players appear to have reserved type of personality while 34.7% hockey players are balanced (with respect to P.F. – A) and further 57.3% hockey players have outgoing type of personality. The Chi-square test results indicate that significantly ($p < 0.05$) high percentage of hockey players of urban area have outgoing type of personality vis-à-vis Personality Factor-A i.e. Reserved vs Easy-going.

3.2 Personality Factor-C (Emotionally Less Stable vs Emotionally Stable)

Table 2: Comparative assessment of hockey Players of rural and urban area with respect to Personality Factor-C (Emotionally Less Stable – More Emotionally Stable)

P.F. – C	Rural Area		Urban Area	
	Nos.	Percent	Nos.	Percent
Emotionally Less Stable	13	17.3	25	33.3
Balanced	43	57.3	38	50.7
Emotionally More Stable	19	25.3	12	16.0
Total	75	100.0	75	100.0
	$\chi^2: 20.16; \chi^2_{\text{tabular}}: 5.991; p < 0.05$		$\chi^2: 13.52; \chi^2_{\text{tabular}}: 5.991; p < 0.05$	

Above Table 2 presents results pertaining personality of hockey players of rural and urban area with respect to Personality Factor-C i.e. Emotionally Less Stable vs Emotionally Stable.

- **Players of rural area:** 17.3% hockey players have emotionally less stable type of personality while 57.3% are balanced (with respect to P.F. – C) and further 25.3% players indicated to have emotionally more stable type of personality. The Chi-square test results show that significantly ($p < 0.05$) high percentage of hockey players of rural area have emotionally more stable type of personality vis-à-vis Personality Factor-C i.e. Emotionally Less Stable vs More Emotionally Stable.

- **Players of urban area:** 33.3% hockey players appear to have emotionally less stable type of personality while 50.7% hockey players are balanced (with respect to P.F. – C) and further 16.0% hockey players have emotionally more stable type of personality. The Chi-square test results indicate that significantly ($p < 0.05$) high percentage of hockey players of urban area have balanced type of personality vis-à-vis Personality Factor-C i.e. Emotionally Less Stable vs More Emotionally Stable.

3.3 Personality Factor-E (Submissive vs Dominant)

Table 3: Comparative assessment of hockey Players of rural and urban area with respect to Personality Factor-E (Submissive – Dominant)

P.F. – E	Rural Area		Urban Area	
	Nos.	Percent	Nos.	Percent
Submissive	18	24.0	11	14.7
Balanced	49	65.3	22	29.3
Dominant	8	10.7	42	56.0
Total	75	100.0	75	100.0
	$\chi^2: 36.56; \chi^2_{\text{tabular}}: 5.991; p < 0.05$		$\chi^2: 19.76; \chi^2_{\text{tabular}}: 5.991; p < 0.05$	

Above Table 3 presents results pertaining personality of hockey Players of rural and urban area with respect to Personality Factor-E i.e. submissive vs Dominant. • **Players of rural area:** 24.0% hockey players have submissive type of personality while 65.3% are balanced (with respect to P.F. - E) and further 10.7% hockey players indicated to have dominant type of personality. The Chi-square test results show that significantly ($p < 0.05$) high percentage of hockey players of rural area have balanced type of personality vis-à-vis Personality Factor-E i.e. Submissive vs Dominant. • **Players of urban area:** 14.7% hockey players appear to have submissive type of personality while 29.3% players are balanced (with respect to P.F. – E) and further 56.0% hockey players have dominant type of personality. The Chi-square test results indicate that significantly ($p < 0.05$) high percentage of hockey players of urban area have dominant type of personality vis-à-vis Personality Factor-E i.e. Submissive vs Dominant.

3.4 Personality Factor-F (Serious vs Happy-Go-Lucky)

Table 4: Comparative assessment of hockey Players of rural and urban area with respect to Personality Factor-F (Serious vs Happy-Go-Lucky)

P.F. – F	Rural Area		Urban Area	
	Nos.	Percent	Nos.	Percent
Serious	13	17.3	13	17.3
Balanced	19	25.3	40	53.3
Happy-Go-Lucky	43	57.3	22	29.3
Total	75	100.0	75	100.0
	χ^2 : 20.16; χ^2_{tabular} : 5.991; $p < 0.05$		χ^2 : 15.12; χ^2_{tabular} : 5.991; $p < 0.05$	

Above Table 4 presents results pertaining personality of hockey players of rural and urban area with respect to Personality Factor-F i.e. Serious vs Happy-Go-Lucky. • **Players of rural area:** 17.3% hockey players have serious type of personality while 25.3% are balanced (with respect to P.F. – F) and further 57.3% players indicated to have happy-go-lucky type of personality. The Chi-square test results show that significantly ($p < 0.05$) high percentage of hockey players of rural area have Happy Go-Lucky type of personality vis-à-vis Personality Factor-F i.e. Serious Vs Happy Go-Lucky.

- **Players of urban area:** 17.3% hockey players appear to have serious type of personality while 53.3% players are balanced (with respect to P.F. – F) and further 29.3% hockey players have happy-go-lucky type of personality. The Chi-square test results indicate that significantly ($p < 0.05$) high percentage of hockey players of urban area have balanced type of personality vis-à-vis Personality Factor-F i.e. Serious vs Happy-Go-Lucky.

3.5 Personality Factor-H (Timid Vs Venturesome)

Table 5: Comparative assessment of hockey Players of rural and urban area with respect to Personality Factor-H (Timid Vs Venturesome)

P.F. – H	Rural Area		Urban Area	
	Nos.	Percent	Nos.	Percent
Timid	29	38.7	33	44.0
Balanced	11	14.7	19	25.3
Venturesome	35	46.7	23	30.7
Total	75	100.0	75	100.0
	χ^2 : 12.48; χ^2_{tabular} : 5.991; $p < 0.05$		χ^2 : 4.16; χ^2_{tabular} : 5.991; $p = \text{Not significant}$	

Above Table 5 presents results pertaining personality of hockey players of rural and urban area with respect to Personality Factor-H i.e. Timid vs Venturesome. • **Players of rural area:** 38.7% hockey players have timid type of personality while 14.7% are balanced (with respect to P.F. – H) and further 46.7% players indicated to have venturesome type of personality. The Chi-square test results show that significantly ($p < 0.05$) high percentage of hockey players of rural area have venturesome type of personality vis-à-vis Personality Factor-H i.e. Timid vs Venturesome.

Players of urban area: 44.0% hockey players appear to have timid type of personality while 25.3% players are balanced (with respect to P.F. – H) and further 30.7% hockey players have venturesome type of personality. The Chi-square test results indicate that relatively high percentage of hockey players of urban area have timid type of personality vis-à-vis Personality Factor-H i.e. Timid Vs Venturesome, however, the difference in percentages is not significant.

3.6 Personality Factor-M (Practical vs Imaginative)

Table 6: Comparative assessment of hockey players of rural and urban area with respect to Personality Factor-M (Practical vs Imaginative)

P.F. – M	Rural Area		Urban Area	
	Nos.	Percent	Nos.	Percent
Practical	45	60.0	16	21.3
Balanced	22	29.3	19	25.3
Imaginative	8	10.7	40	53.3
Total	75	100.0	75	100.0
	$\chi^2: 27.92; \chi^2_{\text{tabular}}: 5.991; p < 0.05$		$\chi^2: 13.68; \chi^2_{\text{tabular}}: 5.991; p < 0.05$	

Above Table 6 presents results pertaining personality of hockey players of rural and urban area with respect to Personality Factor-M i.e. Practical vs Imaginative. • **Players of rural area:** 60.0% hockey players have practical type of personality while 29.3% are balanced (with respect to P.F. – M) and further 10.7% players indicated to have imaginative type of personality. The Chi-square test results show that significantly ($p < 0.05$) high percentage of hockey players of rural area have practical type of personality vis-à-vis Personality Factor-H i.e. Practical vs Imaginative. • **Players of urban area:** 21.3% hockey players appear to have practical type of personality while 25.3% players are balanced (with respect to P.F. – M) and further 53.3% hockey players have imaginative type of personality. The Chi-square test results indicate that significantly ($p < 0.05$) high percentage of hockey players of urban area have imaginative type of personality vis-à-vis Personality Factor-M i.e. Practical vs Imaginative.

4.0 Conclusions

4.1 Personality Factor-A (Reserved – Easy-going)

- On the basis of study results it is evident that most ($p<0.05$) of the hockey players of rural area have reserved personality (with respect to P.F. – A) while most of the hockey players of urban area have outgoing personality (with respect to P.F. – A).

4.2 Personality Factor-C (Emotionally Less Stable vs Emotionally Stable)

- From the study results it is evident that most ($p<0.05$) of the hockey players of rural area have emotionally more stable personality (with respect to P.F. – C) while most of the hockey players of urban area have balanced personality (with respect to P.F. – C).

4.3 Personality Factor-E (Submissive Vs Dominant)

- On the basis of study results it is evident that most ($p<0.05$) of the hockey players of rural area have balanced personality (with respect to P.F. – E) and most of the hockey players of urban area have dominant personality (with respect to P.F. – E).

4.4 Personality Factor-F (Serious Vs Happy-Go-Lucky)

- In view of the study results it is evident that most ($p<0.05$) of the hockey players of rural area have Happy-Go-Lucky personality (with respect to P.F. – F) while most of the hockey players of urban area have balanced personality (with respect to P.F. – F).

4.5 Personality Factor-H (Timid vs Venturesome)

- In view of the study results it is evident that most ($p<0.05$) of the hockey players of rural area have venturesome personality (with respect to P.F. – H) while most of the hockey players of urban area have timid personality (with respect to P.F. – H).

4.6 Personality Factor-M (Practical vs Imaginative)

- On the basis of study results it is evident that most ($p<0.05$) of the hockey players of rural area have practical personality (with respect to P.F. – M) and most of the hockey players of urban area have imaginative personality (with respect to P.F. – M).

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18. Importance of Diet in Sports

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Abstract

Diet is an essential factor that affects performance of athletic as it provides the necessary nutrients and energy to fuel the body of the sports person. Sportspersons require specific nutrients to maintain optimal physical and mental health, and to support their training and competition goals. This review paper intends to study the importance of diet in sports, focusing on the role of macronutrients, micronutrients, hydration, timing of meals, etc. This research paper explores the importance of a balanced diet in sports and the impact it has on athletic performance. It also highlights the types of foods and nutrients that are necessary for athletes to consume to enhance their performance.

Keywords: Diet, Balanced Diet. Sports and Balanced Diet.

Objective

The main objective of this paper is to present an overview of the importance of a balanced diet in sports.

Methodology

This paper is based on secondary data gathered by the author. The articles which are related to the diet, sports nutrition, role of diet in sports, etc. have been reviewed for this research paper.

Introduction

It is necessary for athletes to have balanced and nutrient-rich diet to endure their physical and mental health, and to support their training and competition goals. The importance of diet in sports has been recognized for many years, and research continues to explore the specific dietary requirements for athletes. Sports performance is the result of a combination of factors including training, genetics, and nutrition. While training and genetics play a crucial role in athletic performance, a proper diet is equally important. Athletes require a well-balanced diet to support their energy needs, maintain muscle mass, and prevent injuries. Inadequate nutrition can result in poor performance, fatigue, and even injury. A proper diet can help athletes to maximize their

performance, reduce their risk of injury, and enhance their overall health and well-being. Therefore, it is essential for athletes to understand the importance of a healthy diet in sports.

Balanced Diet

A balanced diet is essential for good health and wellbeing. It provides the necessary nutrients and energy to the body, which helps it function efficiently. A balanced diet helps maintain a healthy body weight, reduces the risk of chronic diseases such as diabetes, heart disease, and certain cancers, and promotes overall good health. It also helps to boost the immune system, improves mental health, and increases energy levels. Carbohydrates, proteins, fruits and vegetables, dairy products, fats, etc. has an individual role to play therefore, it is important to make healthy food choices and eat a variety of foods in moderation to maintain a balanced diet.

Macronutrients

Macronutrients, including carbohydrates, proteins, and fats are essential for athletic performance. Carbohydrates are the primary fuel source for high-intensity exercise and should make up a significant portion of an athlete's diet. Proteins are necessary for muscle repair and recovery, and athletes require more protein than sedentary individuals. Macronutrients are essential for athletes as they provide energy for physical activities. Carbohydrates are the primary source of energy, and they are important for athletes as they help to maintain blood glucose levels, prevent fatigue, and improve endurance. According to Burke et al, (2019), athletes require 5-12 grams of carbohydrates per kilogram of body weight per day, depending on the intensity and duration of their activities.

Micronutrients

Apart from macronutrients, athletes also need to consume micronutrients such as vitamins and minerals, which are essential for maintaining optimal health and performance. Adequate hydration is also crucial for athletes, as dehydration can negatively impact performance and increase the risk of injury. Micronutrients, including vitamins and minerals, are also essential for athletic performance. Deficiencies in micronutrients can lead to decreased performance, increased risk of injury, and decreased immune function. Athletes should consume a variety of fruits, vegetables, and whole grains to ensure adequate intake of micronutrients. Micronutrients are important for athletes as they help to support various functions in the body, including energy production, immune function, and muscle contraction. According to Kiefer et

al, (2018), athletes require higher amounts of micronutrients than sedentary individuals, and this requirement varies depending on the type of activity, intensity, and duration.

Carbohydrate

Carbohydrate is a critical fuel for strenuous exercise; however, the body's ability to store carbohydrate, primarily in the form of glycogen in the muscles and liver, is limited. Exercise intensity is a particularly important consideration since higher exercise intensities are associated with an increased reliance on carbohydrate as a fuel (Martin J. Gibala).

Protein

It remains controversial whether protein requirements are higher in habitually active individuals. The current Dietary Reference Intake for protein is 0.8 g per Kg of body weight per day (56 g per day for a 70 Kg person) and makes no allowance for physical activity (Martin J. Gibala). Proteins are also important for athletes as they help to repair and build muscle tissue. Research has shown that athletes require higher protein intake than sedentary individuals, and this requirement varies depending on the type of activity, intensity, and duration (Mettler et al., 2010). Athletes require 1.2-1.7 grams of protein per kilogram of body weight per day, depending on their activity level.

Fat

Fat is an important fuel for active individuals and, depending on the exercise intensity, may contribute more than half of the energy to fuel muscle contraction. Fat is also more energy dense than carbohydrate or protein, which means less is needed on a per weight basis in order to meet the dietary requirement (Martin J. Gibala). Fats are also essential for athletes as they provide energy during low-intensity activities and act as a fuel reserve during long-duration activities. According to Burke et al, (2019), athletes require 20-35% of their daily energy intake from fats.

Hydration

Proper hydration is critical for athletic performance, and even mild dehydration can negatively impact performance. Athletes consume adequate fluids before, during, and after exercise, and should monitor their urine colour to ensure proper hydration. Hydration is important for athletes as it helps to maintain blood volume and regulate body temperature during physical activities. According to Casa et al, (2019), athletes should aim to consume fluids before, during, and alter their activities to prevent dehydration. The American Council on Exercise

recommends that athletes consume 17-20 ounces of water two to three hours before exercise and continue to drink water throughout the activity, aiming for 7-10 ounces every 10-20 minutes.

Timing of Meals

The timing of meals is important for athletes as it can affect their energy levels and performance. According to Thomas et al, (2019), athletes should consume a meal containing carbohydrates and proteins 3-4 hours before their activity to provide sustained energy. They should also consume a snack containing carbohydrates 30-60 minutes before their activity to provide additional energy. After their activity, athletes should consume a meal containing carbohydrates and proteins to aid in recovery and muscle repair.

Body

A balanced diet is crucial for athletes, as it provides the necessary nutrients and energy to fuel the body during exercise. The three main macronutrients required for energy production in the body are carbohydrates, protein, and fats. Carbohydrates are the primary source of energy for the body and are essential for athletes as they participate in high-intensity activities. Protein is crucial for building and repairing muscles, and athletes require higher amounts of protein to support muscle growth and repair. Fats provide energy for low-intensity exercise and are important for overall health.

In addition to providing energy and nutrients, a proper diet can also help athletes maintain healthy weight, which is essential for optimal performance. Excess body fat can negatively impact performance, while inadequate body fat can lead to poor health and performance.

Conclusion

In conclusion, a proper diet is essential for athletic performance. Athletes should consume a balanced and nutrient-dense diet that includes adequate amounts of macronutrients and micronutrients, and should monitor their hydration status. Timing of meals can also impact performance, and athletes should consume a meal or snack containing carbohydrates and protein before and after exercise. Further research is needed to explore the specific dietary requirements for different sports and athletes.

A proper diet is essential for athletes to support their energy needs, maintain muscle mass, and prevent injuries. Athletes require a well-balanced diet that includes all the necessary macronutrients and micronutrients. Consuming a diet that is high in carbohydrates, moderate in

protein, and low in fat is recommended for athletes. Additionally, adequate hydration is crucial for optimal performance. Understanding the importance of a healthy diet in sports is vital for athletes to achieve their full potential.

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19. Yoga and Sports Psychology

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Abstract

Yoga plays an important role in keeping a person healthy physically, mentally, socially and spiritually. Yoga, which is the heritage of India, has been practiced by the human society for five thousand years for its healthy living. In the last few years, the importance of yoga has engulfed the whole world. During Covid-19 when the whole world was facing lockdown due to the grip of this pandemic, at that time yoga was the whole world had only option to keep physically and mentally healthy. This gave strength to the common man to the players to make them mentally strong and face the situations. Today the importance of yoga is very important for the players, where the players have to face many situations while playing for which they needs a lot of concentration, energy, patience, self confidence, internal and external strength etc. It is often seen during the game that the player loses his confidence after losing competition, getting injured, not practicing for a long time due to any reason, where through yoga, They are confident and energetic. In which meditative postures, meditation, asanas etc. are important, which work to improve the mental condition of a player, whose effect is seen on their sports performance. If we talk about sports psychology, then before, during and after the game, the player has to go through many types of anxiety, stress, depression related to the performance of the game, in which the mental condition of the player is improved by yoga, due to which his performance is improved. Remain better even in odd circumstances.

Keywords: Yoga, Mental health, Anxiety, Stress, Depression, Performance, Sports Psychology.

Introduction

Yoga originated from the Sanskrit root 'yuj' which means to join. According to Patanjali Yoga Darshan 'Yogaschittavritinirodhah' means controlling the instincts of the mind is yoga. It

has also been said by Krishna at one place in the Gita that, 'Yoga: Karmasu Kaushalam' i.e. skill in actions is Yoga. Maharishi Patanjali is called the father of yoga who propounded 195 sutras of yoga which are considered the pillars of yoga philosophy. Maharishi Patanjali told the glory of Ashtanga Yoga which was considered important for a healthy life. Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana, Samadhi are the eight limbs of yoga. Which helps to make life better.

"Yama niyama asana pranayama pratyahara dharana dhyana samadhi ashtau angani"
(II Sutra 29)

1. Yamas - Social duties

Yamas teach us attitudes that we must follow with respect to the environment we live in. They are codes of conduct that teach us to practice restraint.

a. Ahimsa - Non-violence

"Ahimsa pratishhtayam tat sannidhau vairatyagaha" (II Sutra 35)

"When a person is established in non-violence, then violence is dropped in his or her presence."

b. Satya - Truth

"Satya pratishhtayam kriya phala shrayatvam" (II Sutra 36)

"When a person is established in truth then the fruits of action will follow."

c. Asteya - Not stealing

"Asteya pratishhtayam sarvara ratna upasthanam" (II Sutra 37)

"When non-stealing is established, all the jewels (wealth) approach the person."

d. Brahmacharya - Celibacy

"Brahmacharya pratishhtayam viryalabhaha" (II Sutra 38)

"On being established in celibacy, vigor is gained."

e. Aparigraha - Not coveting

"Aparigraha sthairye janmakathanta sambodhaha" (II Sutra 39)

"Being established in non-accumulation gives knowledge of all past and future births."

2. Niyamas - Personal rules

"Shaucha santoshatapaha swadhyaya ishwarapranidhanani niyamaha" (II Sutra 32)

"Cleanliness, contentment, penance, self-study, and devotion to the divinity are the five rules or niyamas."

- **Shaucha (cleanliness):** Maintaining physical purity (external cleansing through bathing and internal cleaning through drinking water) and purity of the environment in which we live as well as mental purity- being free from anxieties
- **Santosha (happiness, contentment):** Being unconditionally happy - no matter what - and realizing our true nature
- **Tapaha (penance, spiritual austerities):** Burning of negative thoughts through discipline and austerity so that we can go deep within our Self, reposing in silence
- **Svadhyaya (self-study):** Reading scriptures but learning through experiences and reading, to gain better understanding of the Self
- **Ishvara pranidhana (devotion or surrender to the Divine):** Seeing life in the context of the vast universe - diving into the infinite and vast consciousness that is filled with love, beauty, and truth, and surrendering to it.

3. Asanas - Physical postures

"Sthirasukhamasanam" (II Sūtra 46)

"That posture which is steady and comfortable is āsana."

4. Pranayama - Control of breath

Prana means life force. Breathing techniques that promote our life force are pranayamas.

Patanjali says retention and splitting of breath in a special way and changing the rhythm of the breath, is pranayama.

5. Pratyahara - Conscious withdrawal of senses

This is a state when the senses don't engage with the external environment instead turning inwards towards the consciousness. In this state, it is easier to control the senses.

6. Dharana – Attention

Dharana is the name of fixing the mind at a particular place (inside or outside the mind).

Dharana is to stop the fixed mind at a 'place'.

7. Dhyana – Meditation

Dhyana is an action in which one contemplates on one's own physical, mental and spiritual nature and one's relationship with God.

8. Samadhi - Absorption with the Self

When the seeker is completely immersed in the meditation of the object and he does not have the knowledge of his existence, then it is called Samadhi. Samadhi has been described as the eighth (last) state in the Yoga Sutras of Patanjali. After samadhi comes wisdom and this is the ultimate goal of yoga.

Psychology

Psychology is that educational and applied discipline which makes a systematic and scientific study of mental processes, experiences and both expressed and unexpressed behavior of humans, animals etc. It is a scientific study of the mind and behavior.

Sport Psychology

Sports psychology is the study of the behavior of the players, which we see in the players during the sports competitions, that is, the study of the mental problems that the player goes through during the competition is sports psychology.

Professional sports psychologists often help athletes deal with the intense pressure that comes from competition and overcome problems with focus and motivation. They also work with athletes to improve performance and recover from injuries. But sports psychologists don't just work with elite and professional athletes. They help regular people learn how to enjoy sports and learn to stick to an exercise program.

Mental Health

Yoga does physical training as well as mental training. Yoga helps a lot in building the mental balance of the players. Today Yoga has been accepted by the whole world, through this the mental level of the players has increased a lot. His concentration has improved. Whether the player is related to any sport like athletics, archery, swimming, wrestling, boxing, kabaddi, cricket, gymnastics etc. it is very important for all to have mental balance and concentration. Yoga includes many techniques that help in improving the mental level for sports or exercise. Yoga is a great addition to any exercise regimen and has many benefits for improving exercise performance. It's unique in that athletes of all ages or experience can start a regimen at their own pace - and benefit.

Anxiety in Sports person

Sports anxiety occurs when individuals view competitive situations as threatening and respond to these situations with apprehension and tension (Martens et al 1990). Pressure causes

our motor skills that are usually automatic to become impaired due to the additional tension. Baumeister (1984) states that athletes “choke” while attempting well-learned tasks. Even elite athletes make “stupid mistakes” on skills they have been practising for years. The obsession with the fear it will happen regularly sends them into a downward spiral making them more apprehensive and likely to make more mistakes.

Stress

According to WHO Stress can be defined as a state of worry or mental tension caused by a difficult situation. Stress is a natural human response that prompts us to address challenges and threats in our lives. Everyone experiences stress to some degree. In sports it is common for a player during playing, it comes according to situation which happen on the ground.

Yoga for Sports Performance

Sport performance is a complex mixture of biomechanical function, emotional factors and training techniques and it is the way in which sport participation is measured. Many yoga asanas are responsible for enhancing the sports performance. It provides strength, endurance, flexibility, mental fitness which is very important for enhancing sports performance.

Players have to face many injuries during the game. Many times he has to go through major injuries which affect his game a lot. Due to which the player has to go through many types of physical and mental pains. At that time, yoga would have played an important role for the players, they could keep themselves mentally healthy by doing some asanas, meditation and pranayama according to the injury, and this also increased their chances of recovery.

Strength – Asanas

The ability of a muscle to apply force and overcome resistance or the amount of force a muscle can exert. Examples: A weightlifter performing a clean and jerk; putting the shot; a boxer punching a right hook; a rugby player in a scrum, pushing against the opposition pack. In yoga many asanas are very helpful for generating inner and outer strength. Inner strength is essential in doing day to day activities and in preventing you from injuries.

Flexibility – Asanas

It is the ability to move the joints through their full range of motion. Examples: Flexibility is important in sports such as gymnastics and athletics (pole vault, high jump) as it allows participants to perform complex moves efficiently and improves the aesthetic quality of the performance. There are many asanas under yoga which make the body strong and flexible. It

is very important for the body to be flexible in sports, the more flexible and stronger the body, able to perform tasks easily.

Cardiovascular – Pranayama

Yoga plays an important role in keeping the cardiovascular system healthy. Yoga can prevent many heart related diseases like high blood pressure, stroke, heart attack etc. It provides strength to the heart due to which the heart functions smoothly. Many researches have shown that the heart can be kept healthy by Pranayama and sports performance can be increased by controlling blood pressure. Pranayama is the practice of breath regulation. In Sanskrit, “prana” means life energy and “yama” means control. Anulom-vilom is the king of all pranayamas as it has not only physical but also strong subtle effects on body. Physically it ventilates the lungs and brings rhythm to the nerve impulses that control breathing cycle, which is controlled by inspiratory and expiratory centres located in the medulla oblongata of the brain. It helps to control the mind and increases awareness of oneself without distraction from the thoughts that constant our mind. It improves the concentration power.

Memory Improvement – Dhyanam

It is the most important component of Yoga practice and helps the practitioner to eliminate negative thoughts, emotions like fear, anger, stress, depression, anxiety and it develop positive emotions, keeps the mind calm and quiet, increases concentration power, memory, clarity of thought and will power.

Conclusion

Ajoy Singha (2018) conducted a study on ‘Effects of Yogic Practices on Mental Health and Mental Toughness among Sports Persons’. In this study a paired sample t test were used to measure the Yogic effects mental health and mental toughness among sports persons, aged 16 to 17. In this study forty (N = 40) male subjects were selected as samples through purposive sampling technique and divided into two groups equally control (n = 20) and experimental (n = 20) from the school students. The training program was of eight weeks in a schedule of weekly three days with one hour session each and one hour yoga training includes ten asana and three pranayamas. The asanas are padmasana, sarvangasana, halasana, chakarasana, dhanurasana, vajrasana, padahastana, sirashasana, bhujangasana, savasana and pranayamas are kapalabati, shitali and shitkari. No special treatment was given to the control group students. The pre and post-test were conducted on selected psychological variables of mental health assessed by using

their personality inventory (TPI) questionnaire Developed by Peter Becker (1989) and the Mental Toughness was measured by using Alan Golberg's (1998) Mental Toughness Questionnaire (MTQ) which consisted 30 statements and it measures five dimensions of rebound ability, ability to handle pressure, concentration ability, level of confidence and motivation. Results of the paired-samples ttest show that mean score of mental toughness control group pre-test (M = 17.30, SD = 3.04) post-test (M = 16.80, SD = 3.38) at the .05 level of significance $t(19) = 1.81, p = .086$. Experimental group pre-test (M = 17.05, SD = 2.83) post-test (M = 20.85, SD = 4.98) at the .05 level of significance $t(19) = -3.96, p = .001$. In this research statistically significant improvements were found post-test scores on the parameter of experimental group mental health and mental toughness.

Manish V. Sawane (2013) conducted a study on Efficacy of Yoga and Swimming in Reducing Anxiety: A Comparative Study. In this study Hundred volunteers between 18 and 40 years of age were included in the study and randomly divided into two groups; one practiced yogic asanas and breathing exercises and other practised swimming for 12 weeks. Beck's Anxiety Inventory was used to assess anxiety level of subjects. Anxiety levels were assessed prior to the training and then after 12 weeks of training. The total score was calculated from 21 items and high scores indicated higher anxiety levels. The average anxiety scores decreased significantly ($p < 0.05$). Decrease in anxiety scores were observed following 12 weeks of yoga as well as swimming with almost similar effects with both yoga and swimming though percent improvement in anxiety scores was slightly better with yoga. Thus the hypothesis that a change in anxiety would be different with yoga and swimming was not supported.

Dominteanu, Teodora (2011) conducted a study on 'The Power of Yoga For Sport Performance'. This study shows the power of yoga for enhancing sports performance.

Continuous yoga practice is very helpful in keeping physically and mentally healthy. Along with the game, its practice keeps the mind and brain completely under control and helps to get rid of various kinds of worries and pressures generated during the game. If the brain is in control then the player is able to take the right decision at the right time while playing in full control, which also improves his performance. There is a need for more studies related to sports psychology so that players can benefit from it and perform well.

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20. Comparative Study of Attitude towards Physical Education Games and Sports of Higher Secondary and Higher Education Students of Indore

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Abstract

The present study intended to find out the difference between attitude towards physical education and games and sports in higher secondary and higher education students of Indore city. 200 students of higher secondary and 200 students higher education was selected as the subject for present study. The criterion measure for the testing hypothesis in this study is the total scores obtained in the questionnaire. The subjects were instructed to mark the content of each item according to the required questions .there was no time limit for the completion of the questionnaire but the subject was instructed not to consider longing over any statement and responding all the statement in the test independently. To know the attitude of the higher secondary and higher education students towards physical education games and sports, 27 questions were selected for questionnaire in which most questions were found having positive attitude of students towards physical education games and sports. Out of 27 question items, in 16 question items the higher education students were found to be more positive towards physical education games and sports as compare to higher secondary students. Further in 10 question items higher secondary students were found to be more positive towards physical education games and sports as compare to that of higher education students in one item the attitude of the higher education and higher secondary students towards physical education games and sports were found to be equal.

Keywords: - Physical education, games and sports.

Introduction

Like most abstract terms in English language, ATTITUDE has more than one meaning derived from the Latin word APTUS, it has on the one hand. The significance of “fitness” can

nothing committing as does its by form “Aptitude” a subjective or mental state of preparation from action. One of the chief objective of education is development of desirable Attitude in the students:- it is there or, obvious that the teachers must understand the various dimensions of an attitude. It is also to be kept in view that we are required to attitude towards colleagues, attitude towards certain ideals, etc. Peak sees attitude as a hypothetical construct that is organized around a conceptual and perceptual nucleus and that has affective properties. The attitude then has referents such as “friends”, “enemies”, “rules”, “success” etc. which is conceptual and perceptual. The effective qualities are these felt by the individual as preferences are aversions, likes and dislikes. Another common definition of Attitude is the predisposition of an individual to evaluate some aspect of his world in a favorable or an un favorable manner. The aspect of his world that he evaluates includes symbols, objects, ideas, and people. Attitude refers to the opinions and beliefs that a person holds regarding objects, people activities and social practices and policies. Often the term is identified with prejudices, basis, beliefs or ideas with an emotional ting. Attitude is not inherited that are learned. That permeates our whole life and exercises a great influence on our behavior. They are intertwined with the individual’s entire personality. Every individual has a wide array of attitudes-attitudes towards health, work, life, food, religion government and many other things, persons and situations. A person may have positive, neutral or negative attitude towards each or any of them. Attitudes are an important variable in class room learning. They influence what is learned. They determine the direction in which the student’s strike. A student may hold in different attitude towards school. He may have a negative attitude towards the teacher or the subject of the students. He may think some subject important and valuable. These are some of the examples of attitudes and they influences learning accordingly. Attitude derives basically from value system and beliefs related to our self, work and relationship with peoples. The way of acquiring knowledge and skill are in part of a function of our attitude. Attitude will also determine the application of knowledge and skill or technique addition, attitude is important in determining coaching, competence is success. They tell us what kind of need is dominated in a certain individual at a certain period of time. Physical education is as old as the history of mankind because the very basis of human existences physical activity, whether in an unorganized form or organized one, physical education as such has been a part and parcel of human life right from pre historic times in his un civilized state, man had to be physically stout, resilient and strong. This was absolutely necessary for him to hunt for food and

protect himself from the wild animals. During his cave life man often ventured out in search of food. This involved vigorous running jumping over rills. Gorges and streams, and the throwing crud weapons at the animals. Sophisticated weapons which appeared with the passage of the time were not available to him. The concept of the physical education has changed considerably in the modern period .today it is being taught as a specialized subject and a lot of value is being included in the subject matter of the physical education. There was a time, when play full activity as separate profession was simply treated as wastage of the time. but in the modern time sport and physical activity are treated as inseparable part of human life as well as dignity and prestige of nation. The modern concept of physical education is now being well understood by Indian policy- makers, that is why physical education has been introduced now as subject in schools from secondary level onwards. To remove the misconceptions about the physical education there is need of awareness among the people, with the help of the awareness people can understood the actual value and importance of the physical education. This study will help to check the awareness in relation to physical education between the higher secondary students and higher education students. Sports are opportunities for children and youth to learn, they provide a “practice field” for life. Learning to work as team teacher young children social skills that will help them in their growth as people, not just as athletes. For youth, participating in sports may develop team work, leadership, self-confidence, self-discipline and coping skills. Sports also can teach youth about sports man like behavior and respect for authority. Infact, according to a survey of teachers and school administrators, youth that participated in evidence from researchers had better grades and behaved better in the class room because of the associate discipline and work ethic. The e is clear children and youth who are involved in physical activities such as sports fare better in school have higher social skills, are more team orient as determined by fitness standard.

Methodology

200 students of higher secondary and 200 students higher education was selected as the subject for present study. The criterion measure for the testing hypothesis in this study is the total scores obtained in the questionnaire. The subjects were instructed to mark the content of each item according to the required questions .there was no time limit for the completion of the questionnaire but the subject was instructed not to consider longing over any statement and responding all the statement in the test independently. They were also requested to give their free

and frank answers subjects were be ensured that the responses given by them on the questionnaire will be kept strictly confidential and not be revealed to anyone.

Discussion of Findings

From the findings it was observed that there is no significant difference in Attitude towards physical education games and sports of higher secondary and higher education students, mostly students have positive attitude. On 6 items the calculated value of **chi-square** was found to be significant as compare to the 21 items were it was not found to be significant. I.e. on 6 items the attitude of higher secondary and higher education students of Indore city towards the physical education games and sports were found to be significantly differs but on 21 items there was no significant difference in the attitude of higher secondary and higher education students of Indore city towards the physical education games and sports. Thus it is evident that to make a sweeping statement or broad generalization regarding “there is no significant difference in the attitude of higher secondary and higher education students of Indore city towards the physical education games and sports” will be futile. It means that there are events and facts with whom the attitude differs significantly among higher secondary and higher education students of Indore city towards the physical education games and sports. But there are more statements were such difference exists but not significantly. From the present study, it was found that the attitude of students of higher education was found to be more positive towards physical education games and sports as compare to their counter parts i.e. the higher secondary students. The probable reasons for this could be that the students of the higher education were more mature and more cognized towards the fact of physical education games and sports plays an important role in the holistic development of the human being. They might be aware of benefits of physical education games and sports as discipline and as practical activity. Further the higher secondary students in the age of adolescence it might be possible that they take the physical education games and sports just as for fun or leisure time activity. There might be some students who may take the physical education games and sports as their future career. but a s here from the funding so the study the attitude of higher education was found to be more positive towards physical education games and sports as compare to higher secondary students .the such difference of attitude ma also attributed due to the availability of the infrastructure facility ,sports equipment, lack of proper guidance ,push and pulls the career orientations due to adolescence age, casual orientation of higher secondary students towards the sports, dilemma of taking physical

education games and sports as career option by higher secondary students and many others. The further researches in this area could dig out deeply so as to find the factual reasons.

Conclusion

Within the limitation of the present study the conclusion may be drawn .there is no significant difference in attitude towards physical education games and sports of higher secondary and higher education students of Indore. To know the attitude of the higher secondary and higher education students towards physical education games and sports, 27 questions were selected for questionnaire in which most questions were found having positive attitude of students towards physical education games and sports. Out of 27 question items, in 16 question items the higher education students were found to be more positive towards physical education games and sports as compare to higher secondary students. Further in 10 question items higher secondary students were found to be more positive towards physical education games and sports as compare to that of higher education students in one item the attitude of the higher education and higher secondary students towards physical education games and sports were found to be equal.

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21. Self-Concept in Sportsperson and Non-Sportsperson

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Abstract

The purpose of present study was to access the Self-Concept between the sportsperson and non-sportsperson male and female. In the present study, the participant (N=40), further divided into four groups (N=10) sportsperson male, (N=10) non-sportsperson male, (N=10) sportsperson female, (N=10) non-sports person female for were from Nagpur district. The subjects were purposively selected. To measure the level of self-concept of the subjects, self-concept scale by Mukta Rani (1974), was applied. The result indicate that sportsperson have significantly better level of self-concept as compared to non-sportsperson ($F [1,39]=5.99, p=.019$). No significant difference in self-concept was observed in gender, sports person male has significantly higher self-concept than non-sports person male ($t=2.51, df=18, p<05$) there is no significant difference between sportsperson female and non-sportsperson female, sportsperson male and sportsperson female, and non-sportsperson male and non-sportsperson female.

Keywords: Self-concept, sportsperson male, non-sports person male, sports person female and non-sports person female.

Introduction

In modern age level of stress has skyrocketed and individuals are looking forward for physical and mental fitness to cope up with this. Sports is a medium which provides an opportunity to keep body in shape along with developing healthy mindset. It gives an opportunity to let go the pent-up emotions and make a person feel good. This study endeavors to explore whether this activity is affecting self-concept of an individual positively.

Today's physical and psychological training programs are more and more intensive, especially in case of elite athletes. The role of scientific and systematic preparation has become even more vital as neither physical standard nor skill level describe performance outcome of an athlete, but it is the psychological parameters of an individual which decides sportsperson and

non-sports person in a competition. An athletic requires something extra for the extra ordinary performance in the area of sports (Suinn, 1977)

In the present competitive scenario, psychological aspects are given more and more emphasis in order to bring out the optimum level of sports performance. It has become clear over the past two decades that psychological intervention can help teams and athletes to perform their best. These keen struggle for excellence have made sport scientist to explore and emphasize on these psychological determinants. These variables always have path to success and failures in the field of games and sports. There has been effort to boost the performance level in sports through physical as well as psychological training of the athletes. When physical skills are evenly matched with the psychological determinants, then performance level enhances. It is the combination of psychological makeup and physical readiness that distinguish successful athletes from their unsuccessful counterpart (Kaur, 2017)

Self-concept

Psychologist Carl Rogers and Abraham Maslow had major influence in popularizing the idea of self-concept in the west self-concept is the organized consistent conceptual Gestalt composed of perceptions of the characteristics of I or me and perception of the relationship of the I or me to others and various aspect of life, together with values attached to these perceptions. It is a Gestalt which is available to awareness though not necessarily in awareness. it is fluid and changing gestalt, a process but at any given moment it is a specific entity. (Rogers 1959)

Self - Concept (also called self-construction, self-identity, or self-perspective) is a multidimensional construct that refers to an individual perception of “self” in relation to any number of characteristics, such as academics (and non-academics), gender roles and sexuality, racial identity and many others. Each of these characteristics is a research domain (i.e. Academic Self-concept) within the larger spectrum of self-concept although no characteristics exist in isolation as one’s self-concept is a collection of beliefs about oneself. While closely related with self-concept clarity (which “refers to the extent to which self-knowledge is clearly and confidently defined, internally consistent and temporarily stable”), it presupposes but is distinguishable from self-awareness, which is simply awareness of their self. It is also more general than self-esteem, which is function of the purely evaluative element of the self-concept. The self-concept is an internal model which comprises self-assessments. Feature assessed include but are not limited to personality, skills and abilities, occupation(s) and hobbies, physical

characteristics, etc for example the statement “I am Lazy” is a self-assessment that contributes to self-concept. However, the statement “I am tired” would be not of someone’s self-concept, since being tired is a temporary state and a more objective judgment. A person’s self-concept may change with time as reassessment occurs, which in extreme cases can lead to identity crises. Another model of self-concept contains three parts: self-esteem, stability and self-efficacy. Self-esteem is the “evaluative” component, it is where one makes judgment about his or her self-worth. Stability refers to the organization and continuity of one’s self-concept. The third element, self-efficacy is best explained as self-confidence. It is specifically connected with one abilities, unlike self-esteem. (Myers and David 2009)

Self-concept is characterized by being in a constant feedback (positive or negative) with the social environment, in which the assessment of the person we establish intimate relations with (family, couple friends), are determinant factors. Various factor that influence an individual’s self-concept are age, gender, education, media, culture, emotional development, sexual orientation and life experience (Orenstein, 1995)

Review of Literature

Dummar (2013) in “A study of self-concept and adjustment in among sportsman and non-sportsman found that the students playing any game at district level or more, have better self-concept than the non-sportsman students. And adjustment level found high from male students playing games regularly than female college students.

Bashir, Kumari, Kumar (2016) in a study found that sportsmen have better Physical, Social, Temperamental, and Moral self-concept than non-sportsmen. While the non-sportsmen have better educational and intellectual self-concept than sportsmen.

Olmedilla, Toro, Abenza (2016) in their study titled “Self-Concept, sport, and physical activity practice in university students” found that the group of university students who are physically active and/or participate in sport had higher levels of self-concept compared to group of university students.

Sahrawat, Boora, Singh (2016) in their study “Comparison of Self-Concept, Stress and Social adjustment. Between Sportswomen and non-Sportswomen” found that social adjustment level was found significant higher among sports sportswomen as compared to non-sportswomen. While the self-concept and stress level found higher among sportswomen as compared to non-sports women.

Kaur (2017) in his called “A comparison of self-concept between sportsperson and non-sports-person female” used Mental Health battery constructed by Singh and Gupta (2000). The result revealed that sportsperson female has significantly better level of self-concept as compared to non-sportsperson females.

Rationale

Review of literature indicates that sports has a beneficial effect on self-concept. Indian studies are less in number and demands on life are changing in present time. Academic success demands much time and parents don't encourage many times to spend time on sports. So this study intends to examine the effectiveness of participating in sports in current scenario of Nagpur district.

Aim

The aim of the study was to assess the Self-concept between the Sports persons and Non-sportspersons.

Objective

The purpose of the study are-

1. To determine if athletes differ from non-athletes in self-concept.
2. To determine if self-concept varies by gender.

Hypotheses

The hypotheses of study are-

H1 Male and Female sports person and non-sportsperson will differ significantly on self-concept.

Corollaries

H1a* There is a significant difference between Self-concept of Sportsperson Male and Non-sportsperson Male.

H1b* There is a significant difference between Self-concept of Sportsperson Female and Non-sportsperson Female.

H1c* There is a significant difference between Self-concept of Sportsperson Male and Sportsperson Female.

H1d* * There is a significant difference between Self-concept of Non-Sportsperson Male and Non-Sportsperson Female.

Method

Sample

Participants for data collection are from Nagpur district. The nature of sample is purposive. The sample consist of 40 Males and Females which are further divided into four groups (N=10) sportsperson male, (N=10) non-sportsperson male and (N=10) sportsperson female, (N=10) non-sports person female. Their aged varied from 16 to 25 years (M=18.17). To qualify sport participant (sportsperson) a student had to be currently representing his or her college (and/or club) in intercollegiate competition (and/or club) competition). The sportsperson participated in different team and individual sports.

Table 1 - Descriptive statistics age

Sports	Gender	Mean	Std. Deviation	N
Sports	Male	20.20	2.94	10
Person	Female	20.30	2.54	10
	Total	20.25	2.67	20
Non	Male	20.20	2.74	10
Sports-	Female	20.10	2.73	10
Person	Total	20.15	2.66	20
	Male	20.20	2.76	20
Total	Female	20.20	2.57	20
	Total	20.20	2.63	40

Table 2 - Two-way ANOVA for age

Source	Sum of Square	Df	Mean Square	F	Sig.
Sports	0.10	1	0.10	0.01	.909
Gender	0.00	1	0.00	0.00	1.000
Sports* Gender	0.10	1	0.10	0.01	.909
Error	270.20	36	7.51		
Total	270.40	39			

Note: Sports indicates sportsperson and non-sportsperson

Two-way ANOVA (Table 2) for age indicates that there is no significant difference in age of sports person and non-sports person. There is no significant difference in ages of gender either. Thus all four groups, male and female sports persons male and female non- sports persons are comparable with respect to age.

Tool

To measure the level of Self-concept of the subjects, Self-concept Scale conducted by Dr. (Miss.) Mukta Rani Rastogi (1974), Agra Psychological Research Cell (Tiwari Kothi Belanganj, Agra) is used. The scale measures 10 construct of self-concept (Viz- Health and Sex Appropriateness, Abilities, Self-Confidence, Self-acceptance, Worthiness, Present, Past and Future, Beliefs and Convictions, Feeling, Shame and Guilt, Sociability, Emotional) Self-Concept Scale has fifty-one statements. Below each statement are given five responses, (Strongly agree, Agree, Undecided, Disagree, Strongly Disagree). The highest possible score is 255 and lowest possible score is 51.

Procedure

The participants were consulted personally and their sincere cooperation was solicited. The researcher himself visited different institution of Nagpur and had collected data on the selected variables (Viz - sports persons/ non- sports persons and gender). The consent and willingness of individuals were considered before administration of questionnaire. After sample was purposively selected, Self-Concept Scale among 10 male sportsperson 10 female sportsperson, 10 male non- sportsperson, 10 female non- sportsperson. Then answer sheets were investigated and scored. After calculation, each individual's score was noted down at the bottom of the answer sheets.

Data was analyzed with help of SPSS version 20, and t test was calculated manually using formula for independent small sample 't' test. Comparisons were two-tailed and confidence level is kept at .05.

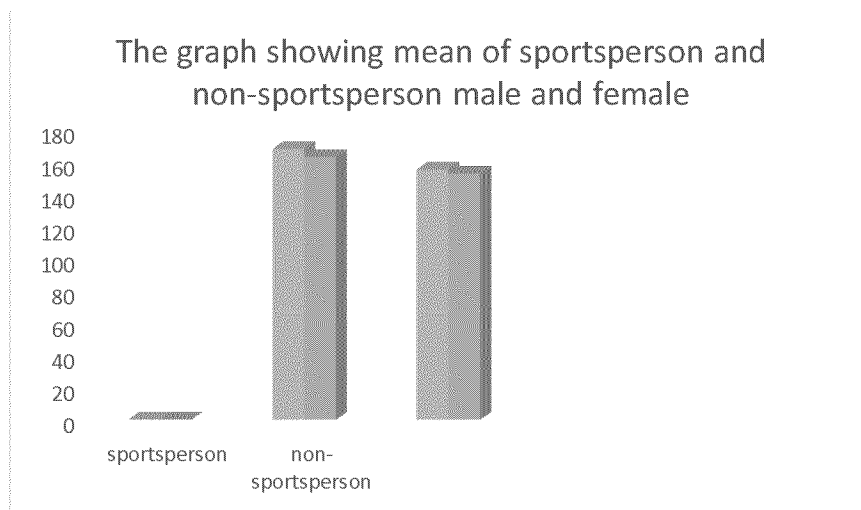
Results

The present study is aimed to determine the Self-Concept among Male and Female Sportsperson and Non-Sportsperson. For this purpose sample consisted of 40 Males and Females, are further divided into four groups (N=10) sportsperson male, (N=10) non-sportsperson male and (N=10) sportsperson female, (N=10) non-sports person female were taken. Self-concept Scale constructed by Mukta Rani Rastogi (1974) is administered to assess Self-Concept; Two-Way ANOVA and t test is used to find out the statistical significance of the groups and result are presented below-

Table 3

Sports	Gender	Mean	Std. Deviation	N
Sports Person	Male	168.00	13.06	10
	Female	162.90	22.53	10
	Total	166.46	18.11	20
Non Sports-Person	Male	155.30	9.24	10
	Female	152.60	10.95	10
	Total	153.95	9.96	20
Total	Male	161.65	12.79	20
	Female	157.75	18.03	20
	Total	159.70	15.56	40

Descriptive statistics self-concept



Graph 1 : - The graph showing mean of sportsperson and non-sportsperson male and female

Table 4 - Two-way ANOVA for self-concept

Source	Sum of Square	Df	Mean Square	F	Sig.
Sports	1322.50	1	1322.50	5.99	.019
Gender	152.10	1	152.10	0.69	.412
Sports* Gender	14.40	1	14.40	0.07	.800
Error	7949.40	36	220.82		
Total	9438.40	39			

Note: Sports indicates sportsperson and non-sportsperson

Two-Way ANOVA (Table 3) indicates that in sports group; sports persons and non-sports person, sport playing individuals (M [SD]= 165.45 [18.11]) have significantly higher score

on self –concept; ($F [1,39]=5.99, p=.019$) than individuals not playing sports ($M[SD]=153.95 [9.96]$). Thus null hypothesis is rejected for sports group. Sports person have significantly high Self-Concept.

No significant difference is observed for gender; thus null hypothesis is retained. Self-concept is not contingent on whether the person is male or female. Interaction is not significant.

Table 5 - Descriptive Statistics: Self concept: Male sports and non-sports person

	Category	N	Mean	STD. Deviation
Self- Concept	Sportsperson male	10	168.00	13.05
	Non-Sportsperson male	10	155.30	9.23

Table 6. - 't' for Self-concept: Male sports and non-sports person

T	Df	Mean Difference
2.51	18	12.7

Table value (Critical value) for 't', df=18 (two tail): .05=2.10, .01=2.88

Table (6) above indicates the result with regarding to variable Self-concept between sportsperson male and non-sports person male. The sports person male had mean value 168 and S.D. value 13.05 respectively. However, non-sportsperson male had obtained mean value 155.30 and S.D. value 9.23 respectively. The t-value 2.51 demonstrated significant difference between these two groups as obtained t-value was found greater than the table value of 2.10 which was required to be significant at 0.05 level of significance with (df=18). Thus null hypothesis is rejected. Sportsperson male have significantly higher self-concept than non-sportsperson male.

Table 7

	Category	N	Mean	Std. Deviation
Self- concept	Sportsperson female	10	162.90	22.63
	Non-Sportsperson female	10	152.60	10.94

Descriptive Statistics: Self concept Female sports and non-sports person

Table 8 - 't' for Self-concept female sports and non-sports person

t	Df	Mean Difference
1.30	18	10.3

Table value (critical value for 't', df=18 (two tail): .05=2.10, .01=2.88

Table (8) above indicates the results with regarding to the variable Self-Concept between sports person female and non-sports female. The sportsperson female had Mean value 162.90

and SD value 22.53 respectively. However, non-sportsperson female had obtained Mean value 152.60 and SD value 10.94 respectively. The t-value 1.30 demonstrated no significant difference between these two group as obtained t-value was found smaller than the table value of 2.10 which was required to be significant with (df=18) thus null hypothesis is retained. Sportsperson female and non-sportsperson female do not differ in their self concept.

Table 9

	Category	N	Mean	Std. Deviation
Self-concept	Sportsperson Male	10	168	13.05
	Sportsperson female	10	162.9	22.53

Descriptive Statistics: Self-concept in Male and Female sports person

Table 10 - 't' for Self-concept: Male and female sports person

T	df	Sig. (2-tailed)	Mean Difference
0.61	18	2.10	5.1

Table value (critical value) for 't' df=18 (two tail): .05=2.10, .01=2.88

Table (10) above indicates results with regarding to the variable Self-Concept between sportsperson male and sportsperson female. The sportsperson male had Mean value 168 and S.D. value 13.05 respectively. However, sportsperson female had obtained Mean value 162.9 and S.D. value 22.53 respectively. The t-value 0.61 demonstrated no significant differences between these two groups as obtained t-value was found smaller than the table value of 2.10 which was required to be significant at 0.05 level of significance with (df=18). Thus null hypothesis is retained. Sportsperson male and Sportsperson female do not differ in their Self-concept.

Table 11

	Category	N	Mean	Std. Deviation
Self-concept	Non-Sportsperson male	10	155.3	9.23
	Non-Sportsperson female	10	152.6	10.94

Descriptive Statistics: self-concept in Male and Female non-sports person

Table 12 - 't' for Self-concept male and female sports and non-sports person

t	Df	Sig.(2-tailed)	Mean Difference
0.59	18	2.10	2.7

Table value (critical value) for 't' df=18 (two tail): .05=2.10, .01=2.88

Table (12) above indicates results with regarding to the variable Self-Concept between non-sportsperson male and non-sportsperson female. The non-sportsperson male had Mean value 155.3 and S.D. value 9.23 respectively. However, non-sportsperson female had obtained Mean value 152.6 and S.D. value 10.94 respectively. The t-value 0.59 demonstrated no significant differences between these two groups as obtained t-value was found smaller than the table value of 2.10 which was required to be significant at 0.05 level of significance with (df=18). Thus null hypothesis is retained. Non-Sportsperson male and non-Sportsperson female do not differ in their Self-concept.

Discussion

The objective of the study is to compare and assess the self-concept between Male and Female sportspersons and non-sportsperson. Five hypotheses are being formed to assess the relationship. To check whether the hypotheses is accepted or rejected, Self-concept Scale constructed by Mukta Rani Rastogi (1974) is used. The samples of 40 participants have been taken (Mean age=20.20) Rapport was build and all the instructions about test are given. Then obtained scores were evaluated through the score table given in the manual. Data was analyzed with help of SPSS version 20, and t test was calculated manually.

There is significant difference in sport playing individuals (M [SD] = 165.45 [18.11]) have significantly higher score on self –concept; (F [1,39]=5.99, p=.019) than individuals not playing sports (M[SD]=153.95 [9.96]). Thus null hypothesis is rejected for sports group. Sports person have significantly high Self-Concept. This implies that in playing sports is having beneficial role in developing healthy self-concept. Studies in review of literature section also have similar findings.

The sportsperson Male (m [SD]=168[13.05]) have significantly higher self-concept (t=2.51, df=18, p<.05) than non-sportsperson male (M[SD]=155.30[9.23]. thus null hypothesis is rejected. However no significant difference is observed in gender and other subgroups (gender as a whole, and within sports and non-sports group, and female sports and non-sport persons)

Though female sports person are mean wise higher than female non-sports person, but , significance level is not reached may be due to small sample size of sample.

Playing sports has multiple beneficial effect on body and mind. It is well known that activity during sports induces proper blood circulation, adequate intake of oxygen, muscle toning etc. Mentally also it makes more disciplined; placing team before ones vested interest, training the mind to be focused, release of pent-up stress are few of them. In a time when sedentary life is becoming routine for many youngsters, sports come as welcome change with double package of exercise and relaxation. Parents can be convinced that participating in sports is indeed very beneficial for their ward. It's not waste of time, rather with better self-concept, one has better chance to cope up with difficulties.

Conclusion

On the basis of result obtained and its interpretation the following conclusion have been summed up-

1. There is significant difference in self –concept of sportsperson and non-sportsperson
No significant difference is observed for gender.
2. Sportsperson male have higher self-concept than non-sportsperson male.
3. No significant difference in self-concept between sports female and non-sports person female.
4. No significant difference in self-concept between sportsperson male and sports person female.
5. No significant difference in self-concept between non-sportsperson male and non-sports person female.

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22. The Study of the Consequence of Situational Factors Related to Anxiety and Mood on the Athlete

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Abstract

Situational anxiety is an anxiety disorder in which the person feels sad even in normal or easy situations. Players with this disorder often have difficulty adapting to new situations, feel nervous, and may even sweat. In many cases, the player's voice trembles when communicating with others. A player dealing with anxious thoughts feels out of place all the time. He judges his words and actions very seriously and ends up feeling uncomfortable about himself. To understand situational anxiety better and deeply, the player must first be aware of uncomfortable situations. The players are playing in one of the most important games of their athletic careers and the players are not doing anything right. The player's footwork is sluggish, the player's body is tense, and the player's attention span is decreasing. Each mistake only adds to the frustration of the player. No matter where it comes from, stress can have an immediate effect on an athlete's performance on the field. More importantly, it can interfere with a player's ability to perform routine tasks such as interacting with others, focusing on work, sleeping, eating, and maintaining overall health. In this research paper, the consequences of situational factors related to anxiety and mood on athletes have been studied.

Keywords: Athlete, Anxiety, Mood, Situational Anxiety, Anxiety Disorder, Sports Performance

Introduction

Very often, an intense feeling of fear and dread, commonly known as anxiety, is caused by a specific event or situation. This form of anxiety is quite common and can happen to anyone. The player may have experienced anxiety at least once before, possibly on the first day of an important game. A type of worry known as situational anxiety disorder develops in reaction to a particular circumstance. There are many anxious situations such as taking a big test or presenting a play in front of a large group of people. Situational anxiety is not recognized as a distinct

condition in the Diagnostic and Statistical Manual of Mental Disorders, the diagnostic manual that doctors use to diagnose patients with mental health disorders. However, if the symptoms of situational anxiety meet certain criteria, such as being distressing enough to interfere with daily life, they may meet the criteria for a type of anxiety disorder known as a specific phobia. Is known.

What differentiates normal anxiety from an anxiety disorder is the amount of distress typically felt and the extent to which it interferes with a player's life. All anxiety disorders have been found to significantly reduce the quality of life, and reduce work productivity, and achievement. When significant threats are present, anxiety is a natural feeling that is both essential and beneficial. However, anxiety can also be painful and exhausting. Anxiety becomes a problem when players feel anxious frequently, experience fears that are out of proportion compared to the situation, or have difficulty controlling the anxiety. Many players who have an anxiety disorder often feel that they should not be as scared as they are, but this does little to make the fear go away. The amount of distress caused by anxiety may indicate a possible disorder. Anxiety can get in the way of being able to live life to the fullest. Perhaps players with anxiety worry more often in their lives, or feel fear or worry more strongly, than other people.

Players with anxiety often feel scared or nervous, and even though they may conceptually understand that they are overreacting, they cannot control those feelings. Sometimes, this can make them worry about the same worry repeatedly, putting them on edge. All that said, anxiety problems can prevent many people from truly enjoying their lives the way the other players in their lives do. Part of the problem with anxiety is that it is unpleasant; Anxiety itself feels uncomfortable, and the more intense the anxiety, the more uncomfortable players may feel in the game.

Feelings of anxiety are preventing the player from fully developing or enjoying their social relationships. There is a real fear experienced having an anxiety attack, which makes it difficult for them to engage in activities they want to do. Fear can make it difficult to spend time in social relationships and initiate or deepen relationships with others. Sometimes the way players deal with anxiety can negatively affect the players closest to them by creating a dependency.

Anxiety disorders can seriously affect academic and professional achievement. Research has found that some athletes suffering from anxiety disorders fail to achieve their academic goals

and professional achievement. Often drop out of sports, avoid sports that require performance, or decide not to pursue their desired professional achievement.

Research Methodology

The research paper has depended on secondary data.

Objective of Research

1. To study the consequences of situational factors related to anxiety and mood on athletes.
2. To search for ways to reduce the consequences of anxiety and mood-related situational factors on athletes.

The Consequence of Situational Factors related to Anxiety and Mood on the Athlete

Most sports professionals have experienced sports performance anxiety at some point in their careers, but athletes can overcome it and begin to enjoy competing again. Tension is often seen as a limitation, but in fact, it can also be beneficial, helping to motivate the athlete. In the right amounts, stress helps the athlete prepare, focus, and perform at their optimum level. Conversely, too much stress, or bad stress, can lead to performance anxiety, which harms a player's health and does not allow a player to play comfortably, confidently, and concentrate in competition. When players are dealing with mental constraints such as apprehension or anxiety, the player's body tends to shut physically, and this can result in complications with athletic performance. Your stress levels must be efficient and manageable for you to work at your best. Athletes need to maintain their overall health with proper rest, recovery, and relaxation. Athletes should try to keep themselves healthy both physically and mentally. These changes are indicative of the need for athletes and health practitioners to become fully aware of the processes required to maintain overall wellness. As the number of off-season months continues to decrease for most sports, more knowledge is needed to avoid the negative consequences of training fatigue and distress, as well as potential injury.

It is helpful to remember that anxiety is psychological, meaning it comes from the mind of the athlete. The stimulus on the other hand is a physiological action resulting from physiological responses to a physiological stimulus. The level of arousal needed for optimal performance in a sport depends on the sport the player is playing. Anxiety is a psychological response. It usually brings about a feeling of unease about something with an uncertain outcome. It causes an increase in heart rate and blood pressure but also increases nervousness. According

to Roger Cowin, "One of the most common physical symptoms of stress is an increase in muscle tension, which can interfere with motor functions. If an athlete is stiff or has trouble performing simple movements while playing their sport If they do, they can put themselves at higher risk of injury. Additionally, recovery from injuries, including minor muscle tears, can be slowed by negative effects on the body".

An extreme and illogical dread of a particular thing or circumstance is referred to as a specific phobia. A player with a phobia may experience an extreme sense of fear when they are exposed to the source of their phobia, which leads to avoidance. Some phobias are focused on a specific object of fear, while others are more complex and linked to a variety of situations or circumstances. However, phobias and situational anxiety disorder are not the same things. If the symptoms of situational anxiety worsen, however, they may contribute to a phobia. Being more susceptible to anxiety, in general, can also increase a player's likelihood of experiencing situational anxiety. However, it is important to note that generalized anxiety disorder and situational anxiety are not the same. Where generalized anxiety disorder involves a persistent state of generalized worry or fear, situational anxiety occurs in response to a specific situation.

According to research, some of the causes of anxiety in both training and competition are related to the intensity of the activity performed, the history and level of stress, the athletes' sportsmanship, and their ability to cope with stress. In addition, there is an association between stress that causes performance anxiety and sports injury. In other words, an athlete's poor response to stress increases the likelihood of injury. Anxiety is more of a feeling of dread and dread before a race. Players do not feel physically or mentally prepared to take up the challenge and deal with the stress of competition. This in turn will hurt the performance of the player as the players are not mentally strong. In addition, symptoms resulting from a player's sports reaction can also affect a player's performance.

Common causes of performance anxiety include putting too much pressure on yourself to succeed, focusing only on results, fear of failure, poor training before a race, lack of rest and adequate nutrition, fear of not performing up to expectations, etc. are included. If the athlete feels that athlete's pre-race nervousness is turning into sports performance anxiety, then the athlete needs to learn how to deal with the emotion and channel that energy in a way that does not work against the athlete. Work for the player instead. Like other forms of anxiety, sports performance anxiety can be reduced with a variety of techniques and the support of a trained mental health

professional who can help the athlete learn to manage pre-race anxiety. Learning to understand why players feel anxious, acknowledging feelings of anxiety, and developing techniques to focus your mind on the positive rather than the negative, helps reduce performance anxiety.

Ways to help overcome performance anxiety include setting realistic goals for yourself, relaxation techniques such as breathing and meditation, cognitive behavioral therapy to help change negative thinking patterns, learning mindfulness, and living in the moment rather than the past or future. Living includes a positive philosophy, accepting failures as a natural part of the process, and focusing on the small victories as well as the big ones. Making sure players are properly prepared before their events can help reduce stress levels and relieve anxiety.

There are many psychological strategies used by athletes to increase motivation and manage anxiety. They are often performed before the competition to help the athlete release nerves and focus on the task they are about to perform. Additionally, psychological techniques can be applied within the game to boost drive and control anxiety under duress. Such moments include free throws in basketball, penalty shots in football, or conversions in rugby.

Strategies used by athletes include a range of concentration skills that help the athlete focus on the competition. Athletes also use mental rehearsal of skills before execution and may use them during rehabilitation to reduce the loss of coordination that comes with sitting on the side-line for extended periods. Relaxation techniques are also used to calm nerves and develop body awareness. And goal-setting is often used before and during training programs to set goals and check progress.

Conclusion

Stress is any change in the environment that requires the player's body to react and adjust in response. Physical, cerebral, and emotional responses are produced by the body as a result of these alterations. Many events that happen around the player and many things that the player himself does put stress on the player's body. Players can experience good or bad forms of stress from their environment, their bodies, and their thoughts. Pre-race nerves are a natural part of doing a sport that athletes love at a competitive level, but when those nerves begin to affect an athlete's performance and lead to anxiety, athletes need to seek professional help. Stress becomes negative (distress) when an athlete faces continuous challenges without respite or rest between challenges. As a result, the player is overworked and work-related stress builds up. This distress can cause physical symptoms including headache, upset stomach, high blood pressure, chest

pain, and problems sleeping. Stress can bring about certain symptoms or diseases or impair the sports performance of the player. The stress becomes even more harmful when players turn to alcohol or drugs to relieve their stress. Unfortunately, instead of relieving stress and returning the body to a relaxed state, these substances keep the body in a state of stress and cause more problems.

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23. Importance of Cognitive Behavioral Intervention

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Abstract

CBIs are designed to teach the use of self-talk or inner speech (verbal self-regulation) to regulate overt behavior. Simply, verbal self-regulation is talking to oneself to guide problem solving or some other behavior. CBIs are often described as stop-and-think strategies. Cognitive behavioral intervention (CBI) is a process by which patients learn to become experts of their own behavior. Through CBI, patients learn to examine their thoughts, recognize when negative thoughts are increasing, and then apply a number of strategies to alter those negative thoughts and emotions. The theory behind CBI is that if people can learn to better understand their thoughts and emotions, then they can also alter them through a host of strategies or exercises. The ultimate goal of CBI is to teach patients how to change undesirable emotions, such as anxiety and anger, that result in maladaptive or destructive behaviors. CBI strategies, all of which are focused on increasing positive behaviors, reducing undesirable or inappropriate behaviors, and promoting self-control, include actionable goals that promote problem-solving, communication, relaxation, and self-awareness. Behavioral and problem-solving techniques are essential in CBT. The types of techniques the therapist will select will be influenced by the conceptualization of the patient, the problem you are discussing, and your objectives for the session.

Keywords: Cbi, Cbt, Anxiety, Depression.

What is CBT

Cognitive Behavioral Therapy (CBT) is a form of psychological treatment that explores the links between thoughts, emotions, and behaviors.

Basics of CBT

CBT is focused on learning to alter your thoughts (cognitions) and your actions (behaviors), which is why it is called cognitive-behavioral therapy. Aaron Beck, known as the Father of CBT, defined three levels of cognition:

1. Core Beliefs

2. Dysfunctional Assumptions
3. Automatic Negative Thoughts

History of CBT

The adoption of cognitive-behavioral therapy progressed slowly over time and was considered controversial during its development. **Dr. Albert Ellis** pioneered behavior therapy in the 1950s with his work on helping patients identify and challenge irrational thoughts. In the 1960s **Dr. Aaron T. Beck** developed the practice for cognitive behavioral therapy. His theories on cognitive distortions helped evolve CBT to what we know today.

CBT Treatment

- Structured and Education
- Collaborative
- Goal-Oriented
- Time-Based

The Strategies

- Cognitive restructuring: Involves helping patients better understand and track their negative thinking patterns that lead to negative responses and then devise alternative responses.
- Activity scheduling: Involves encouraging patients to gradually engage in behaviors they would normally avoid due to anxiety, fear, etc. The behavior analyst would help the patient schedule these behaviors throughout the week, slowly at first and then increasing in frequency.
- Mindful meditation: Involves helping patients eliminate negative thoughts by connecting in the moment through meditation.
- Problem solving: Involves helping patients become active participants in finding solutions to their problems; focuses on implementing problem-solving strategies to regain control of their lives.
- Graded Exposure: Involves repeatedly introducing something that is feared to gradually reduce anxiety and fear.
- Successive Approximation: Involves helping patients break down overwhelming or daunting goals into easily manageable steps.

CBI Used

- Identify the problem
- Define the specifics of the problem (how it occurs, when it occurs, etc.)
- Develop a plan for solving the problem
- Evaluate different strategies for implementing the plan
- Discuss the consequences of implementing the plan and discussing alternative plans
- Agree on a course of action

When is CBI Used

CBI has been used for decades on children, adolescents, and adults. Just some of the conditions CBI is used to treat include depression, anxiety, post-traumatic stress disorder, obsessive-compulsive disorders, eating disorders, and substance abuse disorders.

What can CBT help with

CBT can help with a variety of everyday problems, such as learning to cope with stressful situations or dealing with anxiety over a certain issue. You don't need a medical diagnosis to benefit from CBT.

- Learning to manage powerful emotions like anger, fear, or sadness
- Managing symptoms or preventing mental illness relapses
- Coping with physical health problems
- Conflict resolution
- Improving communication skills
- Assertiveness training

CBT can be effective for a variety of conditions, either alone or in combination with other therapies or medications. This includes:

In CBT, Problems are Broken down into 5 main areas

- Situations.
- Thoughts.
- Emotions.
- Physical feelings.
- Actions.

These Pillars are Identification, Recognition, and Management

- Identification. The first pillar of CBT is identification.
- Recognition. The second pillar of CBT is recognition.
- Management. The third pillar of CBT is management.

Conclusions

CBT is a goal-oriented, time-based, structured treatment that is effective for a range of mental illnesses such as anxiety disorder and depression. It is the most widely researched psychotherapy and has a strong evidence-based framework that supports the effectiveness of the treatment. Cognitive-Behavioral Therapy (CBT) techniques have been proven to help alleviate anxiety in athletes. CBT for athletes can help them deal with stress inside and outside the world of sports. Championships, games, playing in big arenas, health issues, personal problems – there is no lack of reasons to be stressed. What are the basic goals of CBT. The goal of CBT is to help the individual enact change in thinking patterns and behaviors, thereby improving quality of life not by changing the circumstances in which the person lives, but by helping the person take control of his or her own perception of those circumstances.

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24. Effect of Selected Yogic ASANAS on Flexibility amongst School Students - A Study

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Abstract

The purpose of the study was to know the effect of selected asanas on flexibility of school students. 60 subjects were selected randomly from Delhi government school. All the subjects were between the age ranges 12 - 15 years. Two groups consisting of 30 subjects each was formed by random sampling method. 30 subjects in experimental group and 30 in control group. The study was carried in three phases i.e. pretest, implementation of test and posttest. In pre- test flexibility of groups was measured by using sit and reach test (device- testing box and yard stick). In implementation of training experimental group was doing yogic asanas for half hour daily for months. No training was given to control group. In post-test flexibility measurement of both the groups was done by administering the same test as in the pre-test phase. After collection of data, it was subjected to statistical treatment. The level of significance was set at 0.05. It is found that there is no significant difference in flexibility of control group between pre and post - test. There is significant difference in flexibility of experimental group between pre and post - test. Six week asanas training program me shows positive effect on flexibility. There is significant difference in flexibility of post - test between experimental and control groups.

Keywords: Yoga; Asana; Flexibility.

Introduction

Modern world is the world of stress, tension and anxiety. Nowadays most of the peoples have been suffering from various physiological and psychological diseases due to the stress, tension and anxiety. In fact every person is in hurry to make money, enjoy life through materials but nobody is interested in making life happy, peaceful and fruitful in real. Today's age should know the importance of exercise and yoga to bring real happiness in their life. Modern generation had understood the importance of exercise. But doing exercise can only bring

physical and physiological changes in man but yoga helps in bringing physical, physiological and psychological change as well.

Yoga is a vast field and is of different types. One of the most important types is AshtangYog or Raja Yog i.e. attaining physical and mental purity. In yogsutras, Patanjali describes asanas practice as the third of eight limbs of Raja Yoga/Ashtang Yoga. The word Asana is derived from Sanskrit word “As” which means “To Sit”. Asanas mean posture or held positions with comfort and ease. According to Patanjali, Asana means to sit in a posture fixedly and comfortably for sufficient length of time. According to Patanjali asana means, “sthiram sukham asanam” i.e. “that position which is comfortable and steady”.

In Brahamanopanishad, “To sit in a comfortable position or posture for everlasting period is called asana”. Asana is that state of body in which it may be kept easily. As a state matter of fact, the ability to sit comfortably for an extended period of time in any position is called asana. In asanas, body is kept in various positions in such a way, that the activities of organs and glands of body become more efficient and finally improve the health of mind and body. Everyone can practice asanas. There is always a suitable way for an individual to practice asana whether they are old or young, male or female, fit or unfit, supple or inflexible. Yogasanas helps in improving flexibility. Flexibility is the important component of physical fitness. Flexibility is required in almost all sports but it’s range varies according to the game. Flexibility helps in improving skills or we can say polishing skills and thus it helps in improving sports performance.

Methodology

- **Selection of Subjects:-**60 subjects were selected randomly from Delhi government school. All the subjects were between the age range 12 - 15 years
- **Formation of Experimental and Control Group:-**Two groups consisting of 30 subjects each was formed by random sampling method. 30 subjects in experimental group and 30 in control group.

The Study was Carried in Three Phases

Phase I – PRE TEST

Phase II – IMPLEMENTATION OF TRAINING

Phase III – POST TEST

- **Pre-Test:-**Flexibility of groups was measured by using sit and reach test (device-testing box and yard stick).
- **Implementation Of Training:-**Experimental group was doing yogic asanas for half hour daily for months. No training was given to control group.
- **Post-Test:-**Flexibility measurement of both the groups was done by administrating the same test as in the pre-test phase.

Table No. 1 : Training Schedule

Day/Week	Name of Asanas	Duration
Monday to Saturday	Baddhakonasana	1 minute
	Padmasana	1 minute
	Paschimotanasana	1 minute
	Janushirasana	1 minute
	Shavasana	4 minutes
	Trikonasana	1 minute
	Uttanasana	1 minute
	Virbhadrasana	1 minute

Natrajasana	1 minute
Shavasana	4 minutes
Pawanmuktasana	1 minute
Naukasana	1 minute
Chakrasana	1 minute
Shavasana	5 minutes
Warm up	5 minutes
Total Duration	29 minutes

Method of Flexibility Measurement:-Flexibility of all subjects was measured by administrating them sit and reach test. The data pre-test and post-test was compared by using 't' test and as per the result was analyzed. The level of significance was kept at 0.05 to test the hypothesis.

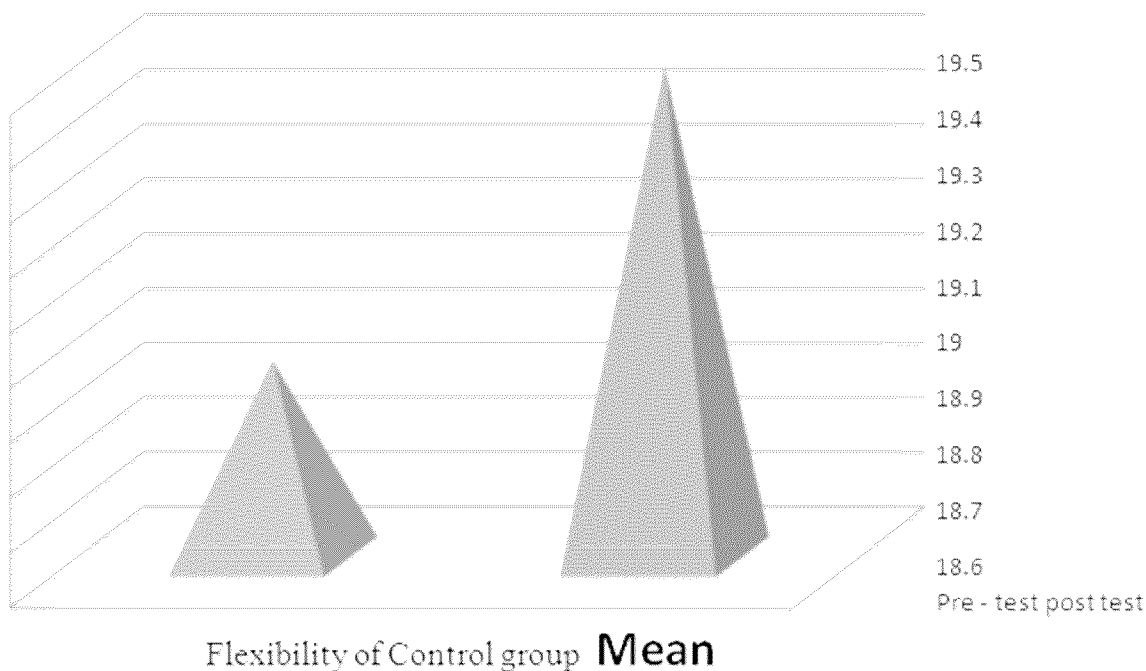
Findings and Discussions

Group	Test	Mean	SD	SE	MD	*O 't'	*T 't'
Control group	Pre	18.96	1.94	3.56	1.02	0.29	2.02
	Post	19.5	2.08				

- O 't' refers to obtained t.
- T 't' refers to table value of t.

From the Table No. 2 it is clear that, there is no significant difference found in flexibility of control group between pre and post- test obtained 't' value is less than the table value.

Graph No. 1 :- Mean value of pre and post Flexibility of Control group Mean Value



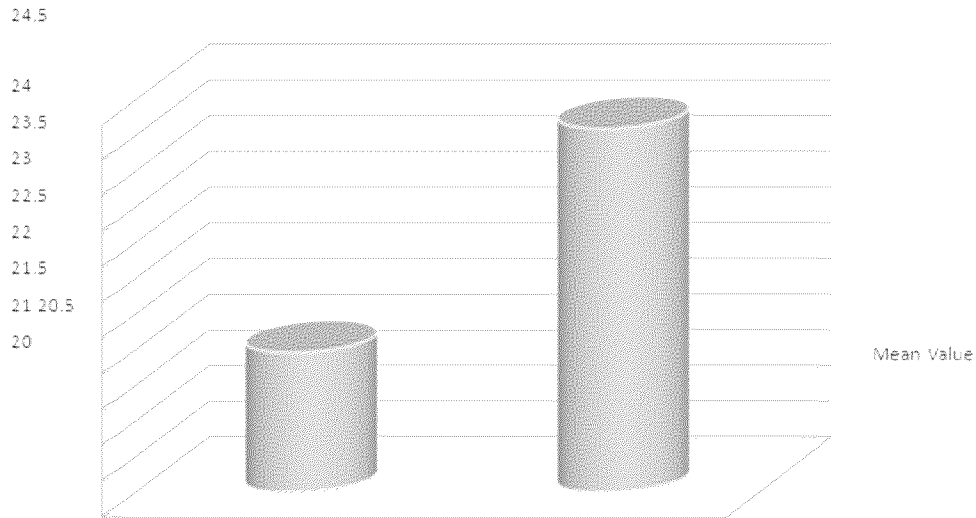
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Table No. 3:- Comparison of Flexibility between pre and post - test of Experimental Group.

Group	Test	Mean	SD	SE	MD	*O 't'	*T 't'
Experimental group	Pre	20.96	3.79	0.89	3.14	3.53	2.02
	Post	24.1	3.12				

From the Table No. 3, it is clear that there is significant difference in flexibility of experimental group between pre and post- test as the obtained 't' value of 3.53 is more than the table value of 2.02.

Graph No. 2 :- Mean value of pre and post- test Flexibility of Experimental group Mean Value



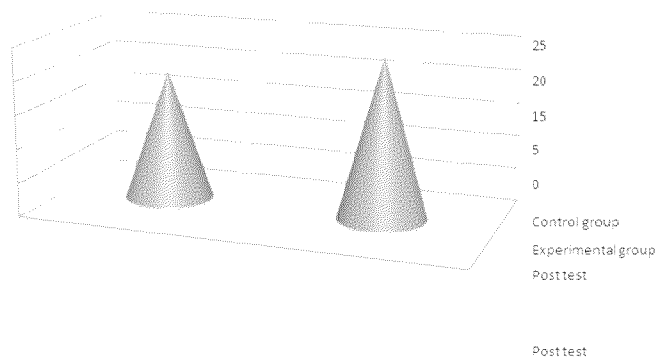
Mean Value

Table no. 4 :- Comparison of Flexibility between Experimental and Control group of post - test

Group	Test	Mean	SD	SE	MD	*O 't'	*T 't'
Control	Post	19.5	2.08	0.67	4.6	6.86	2.02
Experimental	Post	24.1	3.12				

From the Table No. 4, it is clear that there is significant difference in flexibility of posttest between control and experimental group as the obtained 't' value of 6.86 is more than the table value of 2.02.

Graph No. 3 :- Mean value of Flexibility of Control and Experimental group in post- test Post -test



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Discussion of Hypothesis

For the study it was hypothesized that selected asanas will bring significantly more difference in flexibility. So the overall numerical and statistical analysis and comparison of pre - test and post- test of experimental and control group, shows that there is significantly more difference in flexibility after the practice of selected asanas. So, hypothesis is accepted i.e. selected asanas will bring significantly more difference in flexibility.

Conclusions

- There is no significant difference in flexibility of control group between pre and post-test.
- There is significant difference in flexibility of experimental group between pre and post - test. Six week asanas training program me shows positive effect on flexibility.
- There is significant difference in flexibility of post- test between experimental and control groups.

Recommendations

- Similar study may be conducted on the players of different games.
- Similar study may be conducted by adding more asanas techniques.
- The study may be conducted on different age group for a period of 2 months.

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25. The Correlation of Physical Fitness and Mental Hardness on Performance in Runners

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Abstract

Sports start with a stronger base of physical conditioning. Physical fitness is important and takes the lead in sports. Athletes with strong physical fitness can both decrease the frequency of injuries brought on by movement and improve the effectiveness of learning sports skills. Physical fitness improves sports performance and is typically developed by consistent training. The aim of the study was to find out the correlation of physical fitness and mental hardness on performance in runners. The study design was descriptive correlation. Total 48 male runners between the age group of 20 -40 were included in the study from local club in Nagpur region. The results of the present study showed that there was moderately positive and significant correlation ($P < 0.05$) between physical fitness and mental hardness factors ($r=0.77$) and there is a strong correlation between the performance of player and mental hardness ($\text{Sig} < 0.05$). The study concluded that higher degrees of mental toughness were discovered to be correlated with moderate physical activity which results in the improvements of sport performance.

Keywords: Physical fitness, mental toughness, performance, runners.

Introduction

Physical fitness is a condition of health and wellness, more precisely, the capacity to engage in certain activities related to sports, employment, and daily living. Physical fitness refers to a person's capacity to engage in physical activities with minimal muscular effort. Physical fitness encompasses the capacity to actively adapt to life, the capacity to labour and exercise, the capacity to maintain resistance to sickness, and the capacity to adapt to the environment necessary for survival.¹

Sports start with a stronger base of physical conditioning. Physical fitness is important and takes the lead in sports. Athletes with strong physical fitness can both decrease the frequency of injuries brought on by movement and improve the effectiveness of learning sports skills.

Individuals can exercise physical fitness in connection to muscular strength, flexibility, muscular endurance, cardio respiratory endurance, physical fitness, and agility. Physical fitness improves sports performance and is typically developed by consistent training.

Mental health is the capacity to interact with people, alter one's surroundings both personally and socially, and resolve conflicts and personal preferences in a rational, equitable, and proportionate manner. The term "mental health" relates to the condition of the mind and is used to denote a state of good mental health as well as strategies for achieving it, which contributes to the harmony between the individual and the larger society.³

In order to be happy and find salvation, a person must adapt to their environment as best they can. This is what is meant by having a healthy mental state. The empowerment of human resources is a result of mental health and mindfulness, which are very essential components in the lives of both individuals and companies.

One of a person's personality characteristics is mental toughness. A set's tenacity is made up of personality traits that serve as a protective barrier and source of resistance when faced with difficult life circumstances. Life events are frequently intriguing, diversified, educational, and challenging to stiff people. They have a more positive outlook on life as a whole because they view life's events realistically or with a long-term perspective.^{4,5}

One way people can cope with physical, emotional, psychological, and social pressures is through sport, a multifaceted tool with a significant influence. Several studies have demonstrated the beneficial impact of engaging in sports and other healthy recreational activities on both physical and mental health.

Sports psychology has become a recognised subject of study in the last 20 years, and there have been numerous researches on the factors contributing to individuals' rising levels of performance. Despite using the proper technique, eating the right foods, and using the appropriate equipment, it was considered that psychological factors are an important factor that helps the players performs better under pressure.⁶ Even if a person is physically fit, their performance will be affected if they lack mental toughness. Hence, research into the effects of mental toughness and physical conditioning in runners is important. There are also very few research on how runners physical and mental toughness affect their performance. Therefore this study was designed to find out the correlation of physical fitness and mental hardness on performance in runners.

Aim & Objective of the Study

To find out the correlation of physical fitness and mental hardness on performance in runners.

Hypothesis of the Study

Null Hypothesis

It was hypothesized that there would be no significant relationship between physical fitness and mental hardness on performance in runners.

Alternate Hypothesis

It was hypothesized that there would be significant relationship between physical fitness and mental hardness on performance in runners.

Methodology

The study design was descriptive correlation. Total 48 male runners between the age group of 20 -40 were included in the study from local club in Nagpur region. The individuals who were practicing and participating from more than 3 years and willing to participate in study were included in study. Those with suffering from any medical and surgical condition, underlying pathology of bones and muscles in lower extremity or any history of recent degenerative joint disease, fracture, surgery or trauma in lower extremity were excluded from study. The Goldberg General Health Questionnaire, the Hardiness Questionnaire, and the Sports Performance Questionnaire were the three tools utilised in this study to measure physical fitness, mental toughness and physical performance of athletes.

All of the subjects received thorough explanations of the study's objectives and methodology, as well as information regarding its dangers in a language they could understand. They were informed of their right to withdraw from the procedure at any point in the process. By providing a signed consent form, all patients demonstrated their understanding of the study and their desire to take part. Age, gender, occupation, contact information, and residence were all collected as demographic information. The subject was each received a questionnaire. They would be required to finish the questionnaire.

- **Sport mental toughness / Hardness questionnaire:** The Sports Mental Toughness Questionnaire (SMTQ) was used in the current study. A 14-item survey called the SMTQ is used to evaluate the concept of mental toughness. A 4-point Likert scale, with 1 (not at all true) as the baseline, was used for the survey (very true). The scale has

scores ranging from 14 to 56. There is sufficient evidence to support the reliability and validity of the SMTQ (Sheard et al. 2009).⁷

- **Subjective Sport Performance Satisfaction questionnaire:** Subjective Sport Performance Satisfaction questionnaire use to rate the performance during the past week according to participant's own opinion. This scale should rate between 1-10: 1="not at all satisfied", 10="fully satisfied."⁸
- **Goldberg Mental Health Scale:** The Goldberg Mental Health Scale was created by Goldberg in 1972 to assess mental illness psychosis and has since been "widely used to diagnose moderate psychological disorders and screen for psychiatric disorders (non-psychotic disorder) in health facilities and other communities in various scenarios." The 28-item form comprises 4 scales with 7 questions on each. Physical syndrome, anxiety and sleep difficulties, social function disorder, severe depression, and suicidal behaviours are among the scales. Each response from the subject has a four-point scale. The clinical outcome of the severity of the disease and the GHQ scores were 80% associated, according to Gold leaf (1980).⁹

Results

Table: 1 Distribution of Participants According to age-group.

Age-group	No. of patients	Percentage
20-24	22	45.83%
25-29	14	29.16%
30-34	10	20.83%
35-40	2	4.16%
Total	48	
Mean± SD	24.63 ± 5.92	

The above table reveals age group of participants in the study. There were total 48 participants age ranged between 20 to 40 years. In age group 20-24 there were 28 participants (45.83%), in age group 25-29 there were 14 participants (29.16%), 10 in age group 30-34 and 2 in age group 35-40. Majority of the participants were in the age group 20-24 (45.83%). Total no. participants were 48 with mean age 24.63 ± 5.92yrs.

Table 2. Results of Physical fitness with Mental Hardiness in Runners.

Mental Hardness	
Physical fitness	
Correlation coefficient (r)	0.57
Sig (P value)	0.047*

The table no. 2 shows a moderately positive and significant correlation (Sig < 0.05) between physical fitness and mental hardiness factors. In other words, their participants become more resilient as their physical fitness improves.

Table 3. Results of Mental Hardiness with Performance in Runners.

Mental Hardness	
Performance of Player	
Correlation coefficient (r)	0.77
Sig (P value)	0.026**

As shown in table no. 3, there is a strong correlation between the performance of player and mental hardiness (Sig < 0.05). In other words, as people get more mentally fit, their performance improves.

Table 4. Results of physical fitness with performance in runners.

Physical fitness	
Performance of Player	
Correlation coefficient (r)	0.89
Sig (P value)	0.01***

As shown in table no. 4, there is a direct strong significant correlation between the exercise performance and physical fitness (Sig < 0.05). In other words, as people get more physically fit, their performance improves.

Discussion

The study was designed to find out the correlation of physical fitness and mental hardiness on performance of runners. Knowing the link between mental toughness, physical activity and performance of runners might have useful ramifications for athletes and coaches, thus it is crucial to comprehend this linkage. A positive relationship between physical activity, mental

toughness and performance in athletes might predict that higher levels of physical activity would predict greater mental toughness which would in turn predict higher levels of performance in competition. This is assuming the positive relationship between mental toughness, physical fitness and performance found in other sport performers may exist in runners as well.

The results of the present study showed that there **was** moderately positive and significant correlation ($P < 0.05$) between physical fitness and mental hardness factors ($r=0.77$). In other words, as physical fitness increases, it improves the mental status of the players.

Elite athletes in particular are frequently well-prepared to perform at their highest levels. The athlete should be psychologically well-optimized because attaining physical fitness and ideal circumstances necessitates rigorous training and several examinations. The ability to work patiently and persistently, dedication to one's practise and objective, restraint of enthusiasm and challenge, and faith in one's training are what are referred to as stubbornness.^{3,10} According to Rice et al. (2016), despite extensive exercise and training, a variety of sports-related ailments, or even anorexia, the participants didn't succeed. The absence of mental wellness has led to unhappiness and even sports addiction. Conditions Elite athletes mental health has suffered as a result of their performance in competitions, stress, overcoming obstacles, and athletic performance.

Physical fitness and mental toughness are connected, as Lin et al. (2017) demonstrated. A good indicator of mental health is difficulty. Everyone is aware of the links between physical fitness, including its components like agility, speed, power, and flexibility, and general sport, and mental health of individuals.¹¹ Exercise also reduces anxiety, depression, and other disorders, among other benefits. This result is in consistent with that of Kari and Karhulahti (2016), who discovered that high-level and professional sports players engaged in a reasonable amount of physical activity.

As shown in above table the mental toughness and physical fitness showed the strong correlation on the performance in runners. ($p<0.05$) Sports scientists track and evaluate several relationships throughout an athlete's career through the monitoring of athletes process. Mental toughness, one of these potentially significant elements, is sometimes viewed as a crucial element of the sport's performance because it enables athletes to overcome various sorts of strain during a competition. One of the qualities needed for athletes to succeed is mental toughness.¹²

According to a prior study, young people require more time to develop their mental toughness (Ghazarians, Peeling, Ducker et al., 2014). Younger athletes lack experience; however senior athletes have played games for a longer length of time to develop their mental toughness at higher level (Guillén, & Santana, 2018).¹³ According to research by Kari et al. (2016), and more than half of their participants thought that including physical activity in their training plans had a beneficial impact on sport performance. Danielsen, Rodahl, Giske, and colleagues (2017) discovered that there was a difference between division 1 and division 3 Norwegian league, with the higher division players having a high score in mental toughness compared to the lowest division. The level of performance also demonstrated the distinction between elite and amateur players.¹⁵ Athletes with higher levels of performance had higher mental toughness ratings than athletes with less performance experience, who had lower mental toughness scores (Meggs & Chen, 2018).

Stress management, or the act of limiting the emotional response to difficulty, is another illustration of a mental toughness technique. It is referred to as a strategy since it calls for taking action in response to circumstances in which competition could create physiological and emotional responses that might negatively impact performance.

Conclusion

Higher degrees of mental toughness were discovered to be correlated with moderate physical activity which results in the improvements of sport performance. Like players in other sports, runners must cultivate mental toughness along with the moderate physical activity which helps to achieve better results in their performance.

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26. Motivation in Sports and Exercise

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Motivation is a process that cannot be built overnight; it is built over time. Everyone should achieve the best that is possible for him or her to fulfill their potential. Motivation is the process that influences the initiation, direction, magnitude, perseverance, continuation, and quality of goal-directed behaviour. Motivation in sports is why people do what they do. It's also the direction and intensity of one's trouble and determination to achieve. To understand motivation, we must attempt to understand the process of motivation and the constructs that drive the process, and how they apply to sustained behaviour change. Sports that involve emotion, competition, cooperation, achievement, and play give a rich area for cerebral study. People involved in sports attempt to master veritably delicate chops, frequently subjugating themselves to violent physical stress as well as social pressure.

Some exploration has expanded into multitudinous areas similar to imagery training, hypnotism, relaxation training, motivation, socialization, conflict and competition, comforting, and coaching. Specific sports and recreational specialties studied include baseball, basketball, soccer, volleyball, tennis, golf, fencing, and numerous others. Motivation is an internal energy force that determines all aspects of our behaviour. It also impacts how we suppose, feel, and interact with others. In sports, high motivation is extensively accepted as an essential prerequisite in getting athletes to fulfil their eventuality. Still, it's a force that's frequently delicate to exploit completely. Some trainers appear to have a magic touch, being suitable to get a great deal more out of a platoon than the sum of its individual corridor. Others find the motivation to be a fugitive conception they are ever floundering to master. What's it that makes individualities like churning out outstanding performances time in, time out? Elite athletes have developed the capability to conduct their powers extremely effectively. Indeed, motivation is basically about the direction of trouble over a prolonged period of time. There are multitudinous approaches to the study of motivation. Some are grounded on schedules of positive and negative underpinning, while others concentrate on an existent's sense of mastery over a set of circumstances. One of

the most popular and extensively tested approaches to motivation in sports and another achievement.

For optimal motivation, it's argued that strategies need to be developed where individualities borrow and sustain achievement seeking. Whether it's business leaders trying to motivate people in the plant, the health assiduity trying to halt the rise in rotundity and sedentary cultures, parents and preceptors bemoaning the study habits of children and adolescents, or trainers within the sport and performance communities wondering how to get better results, all are concerned with the issue of sustained motivated behaviour. How do we develop motivation for sustained seeking? If we take our cues from everyday life, also it may be associated with thrill, similar to the motivational jeremiads of trainers in the locker room. Some believe it's a measure of confidence, a winning station that motivates one to more performance. Some believe it's a simple matter of positive thinking Believe and you will achieve. Some believe it's a particular reality or is genetically endowed; you either have it or not still, these beliefs don't begin to capture the complexity and uproariousness of contemporary motivational proposition. They need to know you believe in them, so they believe in themselves.

Prosses of Motivation

Individuals who were high or low in motivation were likely to think differently about why success and failure occurred. The notion that thoughts, rather than needs or drives, were the critical variables transformed the study of motivation. Structure motivation over time can look like numerous different effects. It suggested that, as a trainer, ask your athletes what motivation means to them and how they prefer to be motivated. Some athletes want a trainer that will push them, and they respond well to a more violent tone. Others prefer routine check-swags to keep them on track. You may have athletes who prefer to hear stories and exemplifications that they can relate to. Some are more motivated by their peers, while others prefer visualization. And in some cases, an athlete may not know what's utmost motivating for them. Everyone is different, and it's important for trainers to realize that you cannot treat all athletes the same. The work you do as a trainer to make motivation over time, is what allows you to have a bigger impact during those in the moment, game day and pre-game addresses. Once you have erected the foundation, you have helped inseminate the confidence as energy for motivation because they will feel set. And in those short bursts where you need to motivate athletes in their pregame, it simply becomes the redundant kick into gear, because we fall to the position of our training.

Motivation is commodity that cannot be understood with words but with practice. It means to be moved by commodity so explosively that it becomes an alleviation for you. likewise, it's a discipline that helps you to achieve your life pretensions and also helps to be successful. It's a strong tool that helps to get ahead in life. For being motivated we need a driving tool or thing that keeps us motivated and moves forward. also, your thing doesn't be too big and long term it can be small and empowering. likewise, you need the right mindset to be motivated. either, you need to push yourself towards your thing no bone other than you can push your limit. Also, you should be willing to leave your comfort zone because your true eventuality is going to carouse when you leave your comfort zone.

Self-Motivation

It refers to the power of someone to stay motivated without the influence of other situations and people. likewise, tone-motivated people always find a way to reason and strength to complete a task. Also, they don't need other people to encourage them to perform a difficult task.

Motivation by others

This motivation requires help from others as the person isn't suitable to maintain a tone-motivated state. In this, a person requires stimulants from others. Also, he needs to hear motivational speeches, a strong thing, and most importantly and alleviation. motivation is veritably important for the overall development of the personality and mind of people. It also puts a person in action and in a competitive state. likewise, it improves effectiveness and desire to achieve the thing. It leads to stability and enhancement in work. Above all, it satisfies a person's requirements and achieves his or her thing. It helps the person to fight his negative station. The person also tries to come out of his/ her comfort zone so that she/he can achieve the thing. motivation is one of the crucial rudiments that help a person to be successful. A motivated person tries to push his limits and always tries to ameliorate his performance day by day. Also, the person always gives her/ his stylish no matter what the task is. Either, the person always tries to remain progressive and devoted to her/ his pretensions.

Achievement Goal Theory

The history and development of the Achievement thing proposition in sports have been reviewed in several recent explorations. Achievement thing proposition is a social cognitive proposition that assumes that the existent is a purposeful, rational, thing-directed organism and

those achievement pretensions govern achievement beliefs and companion posterior decision timber and behaviour in achievement surrounds. It's these pretensions that reflect the purposes of achievement-seeking. Once espoused, the achievement thing determines the intertwined pattern of beliefs that amp approach and avoidance strategies, the differing engagement situations, and the differing responses to achievement issues. pretensions are what give an exertion purpose. By feting the significance of the meaning of behaviour, it becomes clear that there may be multiple pretensions of action, not one. Therefore, an existent's investment of particular coffers similar to trouble, gift, and time in exertion is dependent on the achievement thing of the existent.

The overall thing of action in Achievement Goal Theory, thereby getting the abstract damping force, is the desire to develop and demonstrate capability and to avoid demonstrating incapacity in an achievement environment. An existent will approach a task or exertion with certain pretensions of action reflecting their particular comprehensions and beliefs about the form of capability they wish to demonstrate. Thus, grounded on their particular proposition of achievement, people will differ in which of the generalizations of capability and criteria of success and failure they use.

Self Determination Theory

Motivation can be defined as the degree of determination, drive, or desire with which an individual approaches or avoids a behaviour. One motivational proposition that's fairly new to the field of exercise wisdom and health creation is tone- determination proposition of Self-Determination Theory. The introductory premise of this proposition is that not all motivations are created equal. The proposition suggests that individualities develop their motivational approach for a given exertion grounded on how well participation in that exertion meets their introductory cerebral requirements for autonomy, capability, and relatedness. Meeting these introductory requirements results in increased confidence and a more healthy motivational exposure, which facilitates the development of enjoyment, trouble, and adherence. Likewise, Self-Determination Theory suggests that people are less likely to cleave to an exercise program if they perceive that their conduct is being controlled by others, if they feel unskilled, or if they've minimum or negative social connections associated with their exercise. tone- determination proposition also accounts for how the presence or absence of these cerebral requirements eventually impacts behaviour through a continuum of motivation that ranges from no motivation to natural motivation. This aspect of the proposition is an important elaboration on traditional

views of motivation and behavioural issues. Specifically, motivation was first conceptualized as simply being present or absent, and latterly, being motivated was described as being natural or foreign. exploration and practice now suggest that motivation is more complex and requires significant elaboration that's handed by self-determination theory

Motivation is the least desirable form of motivation along the continuum and is described as the absence of drive or intention to engage in a behaviour. An individual with this perspective doesn't anticipate that physical exertion will affect increases in autonomy, capability, or relatedness. motivation for these individuals is compromised by bad behaviour and lack of education regarding the benefits of exercise. Predictably, self-determination theory suggests that those who are motivated are less likely to share in regular physical exertion. Other-determined foreign motivation exists when people are motivated through outside sources similar as prices, pressure, obligation, fear, or guilt. Each of these sources of motivation has the implicit to be potent but isn't veritably desirable because they warrant the autonomy and free choice that characterize actions that are more likely to be stuck to. Easily, fear and guilt aren't optimal characteristics of successful behaviour change. Three exemplifications of other-determined foreign motivation include a person who exercises as a result of pressure from their partner, someone who participates in incitement programs at their worksite fitness centre, and someone who fears complaint. Although all of these individualities are sharing in exertion, according to the self-determination theory, long-term adherence is doubtful tone-determined foreign motivation also exists because of external factors but is characterized more appreciatively because the behaviour is chosen autonomously and without the sense of pressure or compulsion. This type of motivation exists when individuals share to gain a valued outgrowth similar to earnings in fitness, advancements in health, relaxation, or social benefits. These valued issues are each considered to be desirable and are linked to bettered adherence. The differences between tone-determined and other-determined motivation can be subtle, but the counteraccusations are significant both cognitively and from a behavioural perspective. Motives grounded on health and social surroundings give useful exemplifications. Motives grounded on health enhancement and fear of complaint may feel analogous but represent extensively different situations of autonomy. That is, exercising to ameliorate health is associated with a further desirable motivational approach than exercising because of fear and pressure.

Tone- determination proposition suggests that the primary difference is related to autonomy, whereby autonomy is present in motivations grounded on health enhancement and absent when the motive is pressure and/ or fear. Analogous distinctions can be made for individuals who exercise because of their positive relations with others in comparison to those who exercise to be honoured and esteemed by others. The former reflects tone-determined foreign motivation, and the ultimate represents other-determined foreign motivation. These types of distinctions have important counteraccusations for interpreters who want to grease a motivational approach that's likely to affect in long- term adherence to a physically active life.

Natural motivation exists when the primary reason for engaging in exertion is enjoyment and satisfaction. Although this type of motivation may feel conceptually analogous to tone-determined foreign motivation, natural motivation only exists when the experience of pleasure and satisfaction is separate from the issues that exertion provides. That is, being agitated about exercise because it allows you to spend time with musketeers is different from enjoying exercise for its own sake. This distinction is of some functional significance because pure enjoyment of commodity is a strong predictor of unborn behaviour. still, the practical counteraccusations are less pronounced because self-determination theory generally suggests that the crucial element in behavioural adherence is the presence of autonomy, which is present in both of these healthy types of motivation.

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27. Physical Activities and Sports: Psychosocial and Physical Health

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Abstract

Sports and exercise offer opportunities to participate in physical activity that improves cardiovascular health, relieves stress, and helps maintain mental and physical health. To achieve these potential health benefits, people must be motivated to participate. Therefore, it is important that sports psychologists, coaches, teachers, parents and participants understand motivation, its impact on sport performance and how it affects levels of physical activity. This chapter begins by defining motivation and then outlines some of the most influential theories of motivation, including intrinsic and extrinsic motivation, self-determination theory, achievement motivation, attribution theory, achievement goal theory, and motivational climate. It is a generally accepted theory that sports and exercise are important to achieve maximum performance and improve a good quality of life. Sports and physical activity as we know are recognized as very important for everyone. The two above can cause body temperature, metabolic, nervous and psychological effects including increased metabolic rate and high kinetics due to increased oxygen intake. Exercise also helps improve the mental well-being of any enthusiast, primarily by improving mood and self-awareness. Exercise, which includes exercise, can go some way towards improving personal well-being and living standards, preventing premature death and disease.

Keywords: Sports, exercise, physical activities, health, motivation

Introduction

Sport is any (physical) activity that is practiced competitively according to the guidelines or rules that govern it. Sports can also be defined as vehicular (played for their own sake) physical competitions. Some sports could be played on dry land, in water, or even in a vacuum. Participating in sports requires the body to move and move. Several studies have shown that sports are beneficial. As early as the 1950s, there was interest in health and exercise research, although the health benefits of exercise participation were scientifically proven in the 1980s and 1990s. To date², there is a huge amount of scientific confirmation of how sport and physical

activity have a positive effect on health and a healthy lifestyle as a whole. The effects of repeated physical activity are particularly evident in the prevention of many problems such as hypertension, obesity, cancer, cardiovascular disease, diabetes and depression. According to a statement by the United Nations Inter-Agency Working Group on Sport for Development and Peace, individuals who participate in both physical activity and occasional sports receive related benefits, such as the development of healthy, strong bones and a well-functioning heart and lungs, and improvements in cognitive function and motor skills. Sports and exercise are useful in preventing hip fractures in women and generally reduce the effects of osteoporosis. Regular exercise can increase the functional capacity of the elderly and help them maintain a good quality of life. The World Health Organization believes that one in four patients suffer from at least one mental health, behavioral or neurological disorder, and in many cases these problems are undiagnosed and untreated. Several scientific works have shown that physical activity has a healing function in the treatment of some psychological disorders. Studies have also shown that physical activity has a positive effect on depression. Also self-confidence and self-esteem (which boosts self-esteem), exercise, movement and sports derivatives. It also produces positive psychosocial outcomes for individuals and communities as a whole.

Overview of Sport

Sport refers to any type of competitive physical activity or game. It uses, develops or improves the skills and physical abilities of the participants, while he provides entertainment and enjoyment to the spectators (Council of Europe, 2012). Sports are governed by certain guidelines or practices to ensure fair competition and to allow the winner to be declared. In different parts of the world, the decisive factor that separates leisure from sport is different in different parts of the world. However, the meaning given to the Sports Agreement in 2011 is the closest to the internationally accepted description; it suggests that for a physical activity to be called a sport, it must be competitive to a certain extent, must not be dangerous for the living being participating, and must not rely heavily on "luck" (Sport Accord, 2011). There are 8,000 domestic sports and sports games, from sports that require only two participants to sports that require large participation in either team or individual competition. Sports are also broadly classified into physical sports (football, athletics, etc.), mental sports (scrabble, chess, etc.), especially motor sports (for example, powerboats or formula 1) (Maguire et al., 2020). Atena (2010), gave a more precise classification of sports. He classified sports into physical, mental, competitive model

sports, endurance sports, target sports, aerial sports, wind, imaginary sports, athletics, ice sports, snow sports, electronic sports, target sports, strength sports, table sports, team sports and target sports. The three bases on which the sport can be tried are the amateur basis, the semi-professional basis and the professional basis, which depends on whether the participants are paid or not. "Post sport" can be defined as non-professional participation in sport at a lower level (European Commission, 2008).

Health Benefits of Physical Activities

Physical activity is a body movement that originates from skeletal muscles and requires energy consumption. It (physical activity) is divided into two solid parts namely; aerobic fitness and strength and balance. It is currently recommended that all people do at least 150 minutes of moderate or 75 minutes of vigorous physical activity each week (or an equivalent combination of these each week). In cases where these recommendations cannot be followed, all levels of physical activity are recommended, as participation in any form or energy consuming activity is better than being inactive. Physical activity difficulties can be overcome by gradually increasing it to the recommended amount and continuing to engage in daily physical activity (U.S. DHHS, 2018). Physical activity usually has both short-term and long-term positive effects on the individual and improves the overall quality of life. Exercise or physical activity promotes good and healthy health and reduces the probability of many diseases such as cancer, cardiovascular disease, type 2 diabetes etc. Regular exercise also helps reduce the likelihood of a heart attack, keeps weight under control, prevents arthritis, reduces the severity of asthma, fights cancer-related fatigue and lowers blood pressure. Regular exercise also promotes a healthy state of mind. It improves memory and brain function in all age groups, reduces feelings of anxiety and depression (PHA, 2011). Studies have shown that physical activity helps with depression in one or more of the following ways; it can banish or prevent unhealthy thoughts from entering your mind, provides an opportunity for more social contact, improves sleep patterns and elevates your mood. Physical activity can also affect brain levels of chemicals such as endorphins and serotonin and other stress hormones (DHA, 2019). Physical activity improves health in three main ways. First, the use of body systems such as skeletal, respiratory, nervous-circulatory, muscular and other systems forces them to get used to physical activity.

Studies show that regular physical activity helps reduce the risk of many diseases and illnesses. In addition, it improves the quality of life. Regular exercise in one or more forms of

exercise can help protect you from stroke and heart disease by raising your HDL levels, strengthening your heart muscles, lowering blood pressure, improving circulation, lowering your low-density lipoprotein (LDL) levels, and increasing your heart rate work ability Exercise also helps reduce fat, which is associated with increased blood pressure in the body. Non-insulin-dependent diabetes is prevented and managed by fat-reducing exercise. Exercise also helps prevent obesity by reducing body fat, building and maintaining muscle mass, and increasing the body's ability to use calories. Whenever exercise is supplemented with a healthy diet, it helps control body weight and prevent obesity, which is a major risk factor for various diseases. The increase in muscle strength and endurance that develops from training increases flexibility and load-bearing capacity, which in turn helps prevent back pain. Sustained heavy exercise also promotes bone formation and can halt many forms of age-related bone loss, such as osteoporosis (McGowan et al., 2015).

Physical Activity and Psychosocial Health

The term psychosocial health is a multifaceted terminology that encompasses the social, mental, spiritual, and emotional dimensions of a total healthy lifestyle, where each dimension contributes to who an individual is. According to Donatelle (2011), psychosocial health is the result of a complex interaction between an individual's history, thoughts and interpretations. It can be influenced by external factors such as family, friends and past experiences, or internal factors such as hormonal function, physical condition, heredity (Faculty SFCC, 2010). A person's mental health is also influenced by self-esteem, maturity and self-efficacy. Therefore, a psychosocially healthy person is described as a person who feels satisfied, is able to effectively manage stress, feels good about himself, enjoys being with other people, deals positively with personal emotions and difficulties and enriches the lives of others. , values things that make them happy, maintains a balance between work and play, rest and activity, etc., values and respects nature, can create and maintain satisfactory human relationships and respond to people's demands. life (Donatelle, 2011). Therefore, for an individual to be described as psychosocially healthy, such an individual must have good mental, emotional, social and spiritual health (SFCC Faculty, 2010). Mental health describes the "thinking" part of psychosocial health. It refers to the ability to reason, interpret and remember from a unique and personal perspective, intellectually process information, assign meanings and make decisions, and think rationally with a fairly accurate perception of events; learn from failures. Emotional health describes the "feeling" part

of psychosocial health. It refers to the ability to manage emotions and behavior, deal with life's challenges, build strong relationships and recover from setbacks, and respond stably and appropriately to disruptive events.

Conclusion

Immobility is a waste of human health and well-being potential, and its prevalence is alarming. Exercise, physical activity and sport are important potential positive factors for positive health, not only the absence of disease, but also the ability to enjoy life and face challenges. To maintain health and reduce the risk of health problems, health professionals and researchers recommend at least 30 minutes of moderate-intensity physical activity most days, preferably throughout the day. An increase in daily activity can be the result of small changes made during the day, such as walking or cycling instead of using a car, getting off the tram, train or bus one stop earlier and walking the rest of the way, or taking the children to school.

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28. Situational Factors Related to Anxiety and Mood

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Abstract

This paper examines the relationship between anxiety and performance from a cognitive-behavioral perspective. Athletes have to cope adequately with the consequences of their injury in order to return into sports as soon as possible. Besides the physical characteristics of the injury, illness perceptions and emotional responses impact the behavioural responses to the injury. Previous research in the field has suggested that the majority of consultations conducted by sport psychologists are related to anxiety. Included is a discussion on the theoretical underpinnings of anxiety and how it relates to performance. Research conducted on the relationship between anxiety and performance is also discussed. A review of the cognitive-behavioral treatments that have been used for anxiety reduction and performance enhancement within the field of athletics is included. To apply Leventhal's Common Sense Model as a theoretical framework in the field of sports medicine, pertaining to injured athletes. Suggestions for future research and practical considerations are listed in the conclusion. Injured athletes' most experienced symptoms were pain (82%) and loss of strength (50%), associated with a high controllability; they see their injury as not chronic, with minor consequences for daily life and minor emotional consequences. Athletes with an injury of longer duration have minor psychological attributions, 28% suffer from fatigue, which is strongly related to a negative mood state. Illness perceptions and mood states are related to injury characteristics. Clinicians ought to incorporate patients' views about their injuries into their treatment in order to increase the concordance between patient's and clinician's perceptions, thereby increasing chances of a quick and uneventful recovery.

Keywords: Athletes, mood, illness perception

Introduction

The ability to cope with pressure and anxiety is an integral part of sports, particularly among elite athletes. Researchers have reported that over 50 of consultations among athletes at an Olympic festival were related to stress or anxiety related problems (Murphy, 1988). A great

deal of research has been conducted examining the relationship between anxiety and performance within the field of athletics. This paper will review the relevant research from a cognitive-behavioral perspective. Included is a discussion of the research findings of the relationship between the two constructs. In addition, the research that has examined the efficacy of cognitive-behavioral treatments is also discussed. Although a great deal of information has been generated, the results are limited due problems in the terminology used by researchers. Therefore, it is important to first examine the conceptualization of anxiety.

Method

Theoretical Constructs of Anxiety

Previous research conducted relating to anxiety and performance in athletics has been difficult to synthesize for a variety of reasons including methodological flaws such as a lack of clear operational definitions and a clear theoretical construct. This section will establish operational definitions for the terms that will be used throughout the rest of this paper. In addition, it will provide an overview of the theories that have been used by researchers who have attempted to clarify the relationship between anxiety and performance in athletics.

The main problem that research on the relationship between anxiety and performance has encountered is that researchers have not adequately operationally defined the construct of anxiety. Instead, terms such as **stress**, **anxiety**, **arousal** and **activation** have been used interchangeably. For the purposes of this paper the following operational definitions will be used for the terms anxiety and stress. Stress is a state that results from the demands that are placed on the individual which require that person to engage in some coping behavior (Jones, 1990). Arousal can be considered to be a signal to the individual that he or she has entered a stressful state and is characterized by physiological signs (Hardy et al., 1996). Anxiety results when the individual doubts his or her ability to cope with the situation that causes him or her stress (Hardy et al., 1996). Another important point that needs to be clarified is the difference between state and trait anxiety (Spielberger, 1966). While state anxiety can be considered to be more situational in nature and is often associated with arousal of the autonomic nervous system, trait anxiety can be thought of as a world view that an individual uses when coping with situations in his or her environment (Spielberger, 1966). Trait anxiety influences performances in that individuals with high trait anxiety will attend more to information related to state anxiety (Hardy et al., 1996). Previous research outside of sport and exercise psychology has indicated that individuals with high trait anxiety who are state anxious attend to threat related information, while individuals with low trait anxiety who are state anxious will attend away from threat

related information (MacLeod, 1990). Within the context of sports, those individuals who are low trait anxious and experience high state anxiety would find it facilitative to a peak performance; but, those individuals with who are high trait anxious and experience state anxiety will find it debilitating to athletic performance (Hardy et al., 1996).

The differences observed between successful and unsuccessful athletes may be the result of their cognitive interpretation of their anxiety states. According to reversal theory (Apter, 1982) arousal is interpreted differently depending on their present state. In telic states athletes are focused on a goal and thus interpret their arousal as anxiety. However, in paratelic states performers are focused on their behavior and therefore interpret their arousal as excitement. Individuals can flip from one state to another quickly and therefore change their interpretation of the arousal that they experience which in turn affects their performance (Hardy et al., 1996).

This theory attempts to incorporate both physiological and cognitive factors in its explanation of the relationship between performance and anxiety but fails to explain their relationship with performance adequately. Multidimensional anxiety theory expanded on reversal theory's inclusion of cognitive and physiological factors (Burton, 1988). In this model, cognitive anxiety (the central tenet of which is concerned with the consequences of failure) has been found to have a negative linear relationship with performance (Burton, 1988). Self-confidence (a separate cognitive component) has been found to have a positive linear relationship with performance (Burton, 1988). Finally, somatic anxiety (physiological symptoms) has been found to have an inverted-U shaped relationship with performance (Burton, 1988). Although this model incorporates many elements of anxiety, it still treats them as separate entities. The next model that arose looked at the interaction between two of these three factors.

Discussion

Effects of Anxiety in Athletics

A great deal of research has been devoted to the effect of anxiety on sports performance. Researchers have found that competitive state anxiety is higher for amateur athletes in individual sports compared with athletes in team sports (Simon & Martens, 1977). In addition, participants in individual non-contact sports have been found to report lower levels of state anxiety than participants in individual contact sports (Lowe & McGrath, 1971). This section will review this research from the perspective of the theoretical models discussed above. Cognitive anxiety has been found to exert a powerful influence on performance. This statement holds true regardless of the individual's skill level. Participants in a collegiate softball tournament were put into one of

two conditions: high situation criticality or low. While somatic anxiety did not differ in the two situations, those athletes in the high criticality condition had significantly higher levels of cognitive-anxiety (Krane, Joyce, & Rafeld, 1994)

Although the research conducted focusing on cognitive anxiety and self-confidence provides some insight into their effect on athletic performance, the interaction of these variables in conjunction with somatic anxiety provides a better understanding of the true effects. Among a group of 91 athletes ranging in age from 14 - 36 years old who participated in soccer, swimming, and track and field, those individuals with higher scores on self-confidence and lower scores on cognitive anxiety and somatic anxiety perceived their overall anxiety levels as more facilitative of athletic performance (Wiggins & Brustad, 1996). Research conducted comparing athletes competing in team sports (basketball) with those competing in individual sports (track and field) has found that subjects competing in individual sports report significantly lower self-confidence and higher somatic anxiety than team sport athletes (Kirby & Liu, 1999).

Cognitive-Behavioral Treatments in Athletics

The research cited so far in this paper clearly indicates that it is important for athletes to be able to control their anxiety if they are to produce peak performances at important times. A large discrepancy between performance in practice and in competition is indicative that the athlete is having a hard time achieving an appropriate level of arousal or may over aroused (Butler, 1996) Relaxation is one method that has been discussed in the literature for reducing both cognitive and somatic anxiety. It is important since it can reduce the individual; Hardy, Jones, & Gould, 1996). These two strategies have been used successfully in the treatment of clinical populations. While a discussion of the procedures used in these two treatments is beyond the scope of this paper, they are still an important component of any anxiety reduction intervention for the purposes of performance enhancement.

Imagery and mental rehearsal of tasks is also beneficial for the individual seeking to improve athletic performance. It provides familiarity with the task at hand and also provides positive feedback of their imagined performance (Hardy et al., 1996). This intervention has been proven to be effective with collegiate athletes in all sports. Results of research indicate that individuals who were in the imagery intervention had significantly greater increases in sport performance and sport competition anxiety than did the delayed-training control group (Lohr & Scogin, 1998). The technique to be imagined should be brought into focus. An internal

perspective (as if they are viewing it through their eyes not the eyes of a camera on them performing the skill) is necessary. In addition, an attempt to feel the movement is effective in enhancing the imagery exercise. Practice the skill in "real time," there is no need to speed up or slow the skill down. Inclusion of coaches in the development of an imagery routine is important since it incorporates their technical skill and helps to minimize the perception of psychologists as a threat by coaches.

Although relaxation, imagery, and cognitive interventions are each beneficial for the purposes of anxiety reduction in athletics, they are far more powerful when used in conjunction with one another. Butler (1996) suggests a mnemonic device called **PRESSURE** who have a hard time coping in competitions that incorporates all three phases of intervention. The word can be broken down as follows:

- **Prepare** - Athletes must psychologically prepare for what they will face during the competition.
- **Relax** - Diaphragmatic breathing exercises, may be necessary prior to competition in order to prevent over arousal which would result in a deterioration in performance.
- **Externalize** - This involves the belief that problems are not within yourself. This can be of assistance when athletes feel that there are too many demands that are being put upon them.
- **Stay Positive** - Acknowledgement of the importance that individuals should have confidence in their abilities.
- **Single Minded** - Stay focused on the task at hand. This can be used both in training and competition.
- **Unite** - Particularly useful within the framework of teams sports, this component encourages athletes to consider what roles others will fulfill and the importance of working together as a team throughout the competition.
- **Re-evaluate** - How important is this event in the real world?
- **Extend yourself** - Give your best performance every time no matter how important, or unimportant, the competition is.

Use of this mnemonic device is warranted with individuals that have problems with the three components of athletic anxiety: cognitive, somatic, and self-confidence. Even the amount of cognitive effort that is used by an individual to use these strategies as an effect on

performance. Gould et al., (1993) reported that the differences between medal winners and non-medal winners at an Olympic wrestling competition was the degree to which the individuals used these interventions automatically such that winners were more likely to use the interventions automatically. Most elite level performers have already found ways of achieving the activation state that is necessary for the sport. One of the things that makes athletics so fascinating is the number of different demands that are placed on an individual throughout a competition. It is therefore unlikely that any one intervention will ever be able to be of benefit for everyone. Thorough assessment of the athlete's needs is therefore recommended.

Conclusion

The above research indicates that anxiety has a considerable impact on performance. Early research was limited due to a lack of clear operational definitions for the construct of anxiety. The development of the catastrophe model provides future researchers with a theoretical framework for better understanding the relationship between cognitive anxiety and somatic anxiety and their effect on performance. Furthermore, we now have the tools for better understanding the components of anxiety in the athletic context. The development of the CSAI-2 and the SAS allows researchers to reliably measure the following constructs: cognitive anxiety, somatic anxiety, self-confidence, and concentration disruption. Furthermore, the development and increased popularity of multiple baseline research designs provide a method for examining anxiety reduction interventions through cognitive-behavioral interventions with small sample sizes. Today's managed care environment has led to the development of manualized treatments for many anxiety disorders in clinical populations. Future researchers should focus on the development of manualized treatments within the athletic environment. However, this should be done with a consideration for the athlete's needs if our interventions as sport psychologists are to have their maximum impact.

According to the model, peak performances are achieved by individuals who poses psychological states with high levels of vigour and low levels of tension, depression, anger, fatigue, and confusion. This is typically called the iceberg profile and is one method for differentiating between successful and unsuccessful performers. Although some research has indicated that this profile cannot be used to differentiate between successful and non-successful athletes, evidence from Terry's meta-analysis (1995) indicates that there is some validity to this profile if the sample is homogenous in ability and the sport they participate in. It is therefore

necessary to consider all aspects of an individual's psychological functioning if sport psychology interventions are to have a maximum impact.

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29. Effect of Yogasana Training on Selected Hematological Variables of Government School Boys

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Abstract

The purpose of the study was to find out the effect of yogasana training on selected hematological variables of Government school boys. To achieve the purpose of these studies thirty school boys were selected from Government school of Indore, at random and their age ranges from 15 to 17 years and all of them healthy and normal. They were divided in to two groups and designed as Experimental and Control group fifteen school boys each. The experimental groups underwent a six weeks of yogasana training was given. The control group was not allowed to participate in any of the training program me except their routine games and sports classes. The collected data were analyzed by using analysis of covariance (ANCOVA). The results of the study showed that yogasana can be an effective training program me to increase the selected hematological variables of school boys.

Keywords: Yogasana, physical Training, Hematological variables, Indore.

Introduction

Yoga is “skill in action” states the Bhagavad-Gita, the best known of all the Indian philosophical epics, but this is not intended to mean action in just the narrow sense of physical movement. For as well as exercise for improving the skill of the body, Yoga also comprises techniques that act on the mind and emotion, and provides a complete philosophical living. The word ‘Yoga’ automatically calls to mind sage Patanjali the founder and father of yoga. He lived around three centuries before Christ, and was a great philosopher and grammarian. He was also a physician and a medical work is attributed to him. However this work is now lost in the pages of time. His best known work is PatanjaliYoga Sutras or Aphorism on Yoga. The path outlined by him is called ‘Raja Yoga’ or the sovereign path. It is so called because of the regal, noble method

by which the 'self' is united with the 'over self'. Patanjali's yoga has essentially to do with the mind and its modifications. It deals with the training of the mind to achieve oneness with the universe. Incidental to this objective are the acquisition of 'Siddhis' or powers. Yoga means not only contemplation but also communion and yoking all powers of the body, mind and soul to God. It is a very ancient and efficient system of disciplines and is designed to produce the integration of the body, mind and spirit. It also helps one to achieve higher states of awareness and self-realization by methodical efforts to attain perfection. The therapeutic benefits obtained by performing asanas are well known. The circulation of the blood is improved; tensions can be removed, and a feeling of well-being is induced. The muscles are strengthened; nerves soothed and physical endurance is increased. One important aspect is that blood vessels and nerves, that form the internal organs, are "massaged" by the twists and bending, ensuring proper functioning. Ageing bodies can have fewer aches and pains, stiffening of joints can be healed and depression alleviated. Yoga is the oldest known science of development. Learning and participating in yoga makes one feel good because it positively affects the mind and body. It gives mental, physical and spiritual control. Developed thousands of years ago in India, yoga literally means joining-the joining of the individual self with the 'universal self'. This joining is achieved through the practice and mastering of specific physical

Postures called 'asana', breathing exercises called 'Pranayama' and 'Meditation' - this is known as the path of 'Raja Yoga', and its subdivision is 'Hatha Yoga'. There are numerous stories about the remarkable abilities of yogis, who are adept in the disciplines of yoga. British doctors more than 200 years ago began studying certain Indians who could do some very unusual and interesting things. These people, called yogis, apparently had phenomenal powers of self-regulation of both mind and body. Studies of yogis who demonstrated unusual control over mind and body, and studies of the mechanisms of voluntary autonomic control indicate that body control is achieved through passive concentration and not through active striving, and the important part of the control is the process and the attention to it - not the outcome nor the goal. These dimensions operate in all physical, emotional and mental activity. Yoga helps all to learn autonomic control via passive concentration. Yoga asanas can be used for warm up, to cool down, regeneration, compensation of muscle balances, synthesis of mind and body, activation or deactivation of the body and also as supplemental exercise. Psychological preparation can be divided into two types, they are general and specific. General psychological preparation is to

develop basic mental skills such as goal setting, relaxation techniques, concentration and visualization. The ultimate goal of specific psychological preparation is self - mastery, control of emotions and control of the mind. Yoga is one of the best means of self - improvement and attaining one's full potential. In the advanced stages of yoga, super conscious states are attained which result in a feeling of bliss, deep peace and the emergence of psychic powers. Yogasana are simple actions to keep the internal and external parts of the body in good health. No activity can be performed well as long as the internal and external parts of the body are not in good health. The body and mind are closely related. Thousands of years ago, the people of ancient Greece believed in the principle "A sound mind in a sound body". The whole system of yoga is based on this principle. "Yoga has a complete message for humanity. It has a message both for the human body and for the human mind and also a message for the human soul." Yoga as a system of physical exercise had been in existence in India since very ancient times. According to our ancient sages, there are eight stages of yoga. They are namely "Yama" which means social discipline, "Niyama" which means individual discipline, "Asana" it means the posture, "Pranayama" which means breath control, "Prathyahar" which means mental discipline, "Dharna" which means the concentration, "Dhyana" which means meditation and "Samadhi" which means self-realization.

Methodology

Subjects for the present study were taken from thirty school boys were selected from Government schools of Indore, at random and their age ranges from 15 to 17 years and all of them healthy and normal. The selected subjects were divided into two groups and designed as Experimental group and Control group fifteen school boys each. The experimental groups underwent a six week of yogasana training. The control group was not allowed to participate in any of the training program except their routine games and sports classes; a qualified physician examined the subjects medically and declared that they were fit for the study. The duration of the training period was six weeks with five days per week. On every day the training was practiced approximately 60 minutes. Under the instruction and supervision of the investigator. The analysis of covariance (ANCOVA) was applied to find out significant difference if any between experimental and control group. In all cases 0.05 level of confidence was utilized to test the significance. Keeping the feasibility criterion in mind, the following Asanas was selected for the proposed training program in the study and students was introduced with basic training of these Asana;

Table-I
Schedule of Training

Day	Schedule		Time
	Control Group	Experimental Group	
1 st Day	Control group did not participate in the training program.	Preparatory Exercises - Prayer - Three round of breathing, ohm... - Surya namaskar ASANAS 1. Vajrasana 2. Padmasana 3. Sasankasana 4. Bhujangasana 5. Janusirasana 6. Vakrasana 7. Ardhamasthyedrasana 8. Pachimottansana 9. Sarvangasana 10. Halasana 11. Matsyasana 12. Dhanurasana 13. Salbhasana -Variation- 1 -Variation-2 -Variation-3 MEDITATION 1. Shavasana	(20minutes) (30 minutes) (10 minutes)
	Same schedule was repeated for Six weeks Sunday rest		Total 60 min.

Analysis of Data and Findings of the Study

The statistical analysis of data collected on thirty school boys age ranged between 15-17 years, Data were collected two times in the interval of Six weeks. Total Six weeks of yogasana training was conducted. Observations for tests were collected prior to the treatment in the form of pre-test then after Six weeks of yogasana training; observations for second test was collected in the form of post-test. The data on selected criterion measures for all the groups were collected under similar conditions.

Table II**Descriptive Statistics of Experimental Groups and Control Group of Pre-Test & Post Test in relation to Haemoglobin**

		N	Mean	Std. Deviation	Std. Error
Haemoglobin Pre Test	Control	15	13.9233	0.748861	0.188191
	Experimental	15	13.1600	0.948272	0.247425
	Total	30	13.5466	0.933194	0.170377
Haemoglobin Post Test	Control	15	13.1833	0.964289	0.251560
	Experimental	15	14.6366	1.426110	0.267522
	Total	30	14.4500	1.027468	0.187589

Table -II reveal that the mean and standard deviation of Haemoglobin of Pre Test (Experimental Group 13.16 ± 0.94 , control Group 13.92 ± 0.74), Post Test (Experimental Group 14.63 ± 1.42 , control Group 13.18 ± 0.96).

Table III**Analysis of Co-Variance of the Means of Experimental Groups and the Control Group in Relation to Haemoglobin**

S. V.	Group			d.f.	Sum of square	Mean square	F ratio
	Control	Experimental					
Pre Test	13.92	13.16	B	1	4.961	4.961	2.846
			W	28	20.293	9.724	
Post Test	13.18	14.63	B	1	2.296	2.296	4.284*
			W	28	28.318	29.011	
Adjusted Post mean	197.28	214.84	B	1	1003.917	1003.917	6.438*
			W	27	6425.424	237.978	

* Significant at 0.05 level of significance

F = Ratio needed for significance at 0.05 level of significance = $df(1, 28) = 4.20$, $df(1, 27) = 4.21$ The analysis of co-variance for Haemoglobin indicated that the resultant F-ratio of 2.846 was significant in case of pre-test means from which it is clear that the pre-test mean was significantly and that the random assignment of subjects to the experimental groups was quite successful. The post-test means of all the two groups yielded a F-ratio of 4.284 which was significant at 0.05 level of confidence. The F-ratio needed for significance with 1, 28 degree of freedom is 4.20 at 0.05 level of confidence. The difference between the adjusted posts means was found significant as the obtained F-ratio was 6.438. The F-ratio needed for significance at 0.05 level of confidence was 4.21. Thus, mean significant difference exists between experimental and control group in relation to Haemoglobin.

Table IV**Descriptive Statistics of Experimental Groups and Control Group of Pre-Test & Post Test in relation to Platelets**

		N	Mean	Std. Deviation	Std. Error
Platelets Pre Test	Control	15	217.8666	61.996331	15.74918
	Experimental	15	163.4000	34.008481	8.26455
	Total	30	189.6333	54.796478	10.00442
Platelets Post Test	Control	15	191.7333	53.359211	14.03548
	Experimental	15	208.0000	41.473978	10.45033
	Total	30	200.8666	47.809776	8.72883

Table -IV reveal that the mean and standard deviation of Platelets of Pre Test (Experimental Group 163.40 ± 34.00 , control Group 217.86 ± 61.99), Post Test (Experimental Group 208.00 ± 41.47 , control Group 191.73 ± 53.35).

Table V**Analysis of Co-Variance of the Means of Experimental Groups and the Control Group in Relation to Platelets**

S. V.	Group			d. f.	Sum of square	Mean square	F ratio	Sig.
	Control	Experimental						
Pre Test	217.86	163.40	B	1	20645.633	20645.633	8.701	0.006
			W	28	66431.333	2372.547		
Post Test 191.73		208.00	B	1	1984.533	496.533	0.866	0.361
			W	28	2296.533	133.833		
Adjusted Post mean	169.46	234.26	B	1	24021.504	24021.504	85.781*	0.002
			W	27	7472.829	276.771		

*** Significant at 0.05 level of significance**

F = Ratio needed for significance at 0.05 level of significance = $df(1, 28) = 4.20$, $df(1, 27) = 4.21$ The analysis of co-variance for Platelets indicated that the resultant F-ratio of 8.701 was insignificant in case of pre-test means from which it is clear that the pre-test mean does not differ significantly and that the random assignment of subjects to the experimental groups was quite successful. The post-test means of all the two groups yielded an F-ratio of 0.866 which was significant at 0.05 level of confidence. The F-ratio needed for significance with 1, 28 degree of freedom is 4.20 at 0.05 level of confidence. The difference between the adjusted posts means was found significant as the obtained F-ratio was 85.781. The F-ratio needed for significance at 0.05 level of confidence was 4.21. Thus, mean significant difference exists between experimental and control group in relation to Platelets.

Discussion of Findings

The results of the study have revealed significant differences between control & Experimental Groups in relation to Haemoglobin but in case of Platelets insignificant difference was found between control & Experimental Groups of school boys, There may be the reason behind this that the training period or duration was short for the improvement in haemoglobin but not enough for the significant improvement in Platelets count. The selected subjects were measured of their Haemoglobin and Blood sugar. The interventional training programmes for this study were six weeks. Analysis of covariance (ANCOVA) was used to find out whether the mean differences were significant or not. The results of this study proved that there was a significant improvement on Haemoglobin and Blood sugar due to Asana, Pranayama and Meditation.

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30. Exploring the Role of Sports Psychology in Enhancing Performance and Well-Being of Physically Challenged Athletes: A Comprehensive Review

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Abstract

Sports psychology is a field that has traditionally focused on able-bodied athletes, but there is growing interest in applying its principles to physically challenged athletes. This review examines the literature on sports psychology for physically challenged athletes and its implications for their performance. The review finds that sports psychology interventions, such as goal setting, imagery, self-talk, and relaxation techniques, can be effective in improving the performance of physically challenged athletes. Additionally, psychological factors such as motivation, self-esteem, and coping strategies are also important for the success of these athletes. However, there are some unique challenges faced by physically challenged athletes, such as the need to adapt to physical limitations and cope with stigmatization. These challenges require specialized interventions that take into account the unique needs and experiences of physically challenged athletes. In general, sports psychology can be a useful tool for improving the performance and general well-being of athletes who are physically disadvantaged.

Keywords: Sports Psychology; Paralympic; Para athlete; Adapted Physical Education; Physically Challenged; Stress; Motivation; Achievement.

Introduction

The study of sports psychology, which is in high demand, is devoted to comprehending the psychological aspects of how athletes perform. The application of sports psychology is not limited to able-bodied athletes; rather, it is equally important for physically challenged athletes. The psychological demands of sports can be just as challenging for physically challenged athletes, and may even be compounded by the additional physical and emotional stresses they

face. Therefore, sports psychology can be an invaluable tool for physically challenged athletes to help them achieve their athletic goals.

Physically challenged athletes face unique challenges in sports, including coping with their physical limitations, overcoming social stigma, and dealing with the pressure to perform. Additionally, they may face unique psychological challenges, such as fear of re-injury, anxiety about their performance, and stress related to their disability.

Sports psychology can help physically challenged athletes develop the necessary psychological skills to overcome these challenges and perform at their best. This may involve developing techniques to manage stress and anxiety, setting realistic goals, and enhancing motivation and self-confidence. By understanding the psychological factors that influence athletic performance, physically challenged athletes can better prepare themselves for the challenges they may face in sports and achieve their full potential.

Method

A review of the literature was conducted using electronic databases such as PubMed, PsychInfo, and Google Scholar. The keywords used in the search included "sports psychology," "physically challenged athletes," "disability," and "adaptive sports." Articles were included if they focused on the role of sports psychology in the success of physically challenged athletes.

Results

The literature review revealed that sports psychology plays a crucial role in the success of physically challenged athletes. These athletes face unique physical and psychological challenges that can affect their performance. Sports psychology can help these athletes overcome these challenges and achieve their goals.

One of the key areas of sports psychology that is important for physically challenged athletes is mental preparation. Athletes with disabilities often face negative attitudes from others, and may struggle with self-confidence and motivation. Mental preparation can help these athletes develop a positive mindset, set realistic goals, and overcome negative self-talk.

Another important area of sports psychology for physically challenged athletes is visualization. Visualization involves mentally rehearsing specific skills or scenarios, and has been shown to improve performance in athletes. For physically challenged athletes, visualization can be especially helpful in preparing for competitions and adapting to new environments.

Goal-setting is another important aspect of sports psychology for physically challenged athletes. Setting specific, measurable goals can help these athletes stay focused, motivated, and confident in their abilities. Goal-setting can also help athletes with disabilities to identify areas for improvement and track their progress over time.

Implications

The literature review has several implications for the practice of sports psychology for physically challenged athletes. First, coaches and sports psychologists should work together to develop mental preparation strategies that are tailored to the needs of each athlete. This may involve individualized goal-setting, visualization exercises, and other techniques to improve mental toughness and confidence.

Second, sports psychologists should be aware of the unique challenges faced by physically challenged athletes, and should work to develop strategies that are adaptive to each athlete's specific needs. This may involve adapting visualization exercises to accommodate specific physical limitations, or working with athletes to develop coping strategies for negative attitudes or other stressors.

Finally, coaches and sports psychologists should work to create an inclusive environment for physically challenged athletes. This may involve providing equal access to training and competition facilities, developing partnerships with disability organizations, and promoting awareness and acceptance of disability in sports.

Discussion

Sports psychology is an important aspect of athletic training that focuses on the psychological factors that affect an athlete's performance. For physically challenged athletes, sports psychology can play an even more critical role as these athletes may face unique challenges related to their physical disabilities. Some of these challenges may include feelings of inadequacy, self-doubt, and fear of injury or failure.

One of the primary goals of sports psychology for physically challenged athletes is to help them develop a positive mindset that enables them to overcome their physical limitations. This can be achieved through a variety of techniques, including visualization, positive self-talk, and goal setting. Visualization involves mentally rehearsing an athlete's performance, which can help them to develop confidence and reduce anxiety. Positive self-talk involves using positive statements to encourage and motivate an athlete, while goal setting involves setting achievable goals that help to build confidence and provide direction.

Another important aspect of sports psychology for physically challenged athletes is managing stress and anxiety. Athletes may experience stress and anxiety related to their physical limitations, the pressure to perform, or the fear of injury. Sports psychologists can help athletes develop strategies to manage stress, such as deep breathing, mindfulness, and relaxation techniques.

Finally, sports psychologists can help physically challenged athletes develop coping skills to deal with setbacks and failures. Setbacks and failures are a natural part of athletic training, but they can be particularly challenging for physically challenged athletes who may already face significant obstacles. By helping athletes develop effective coping skills, sports psychologists can enable them to bounce back from setbacks and continue to improve their performance.

Recommendations

Based on the above discussion, the following recommendations can be made for sports psychology for physically challenged athletes:

1. **Emphasize the development of a positive mindset:** Sports psychologists should focus on helping physically challenged athletes develop a positive mindset that enables them to overcome their physical limitations and perform at their best.
2. **Manage stress and anxiety:** Sports psychologists should help athletes develop strategies to manage stress and anxiety related to their physical limitations, the pressure to perform, or the fear of injury.
3. **Develop coping skills:** Sports psychologists should help athletes develop effective coping skills to deal with setbacks and failures that are a natural part of athletic training.
4. **Encourage goal setting:** Sports psychologists should encourage physically challenged athletes to set achievable goals that provide direction and build confidence.
5. **Provide ongoing support:** Sports psychologists should provide ongoing support to physically challenged athletes to help them overcome the unique challenges they may face related to their physical limitations.

Conclusion

In conclusion, sports psychology is a critical component of success for physically challenged athletes. By developing mental preparation strategies, using visualization exercises,

and setting specific, measurable goals, these athletes can overcome the unique physical and psychological challenges they face and achieve their full potential. Coaches and sports psychologists must work together to develop adaptive strategies that meet the needs of each athlete and promote an inclusive environment for all athletes, regardless of ability.

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31. Exploring Association between Ego-Strength and Resilience in Young Adults

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Abstract

The Present study aimed to explore the degree of resilience, gender differences and strength of association between ego-strength and resilience among young adults. Data was collected from 300 college going undergraduate students (150 males and 150 Females). Connor-Davidson resilience scale, Ego-Strength scale by Dr. Q. Hasan and a special information sheet were used for assessment of factors. t-test and correlation analysis were performed. Findings reveal that a variable degree of resilience exists in students and this resilience is found to be moderately correlated to ego strength a person holds ($r = .248$). t-test revealed female and male subjects show no difference on the dimensions of ego-strength and resilience.

Keywords : Resilience, Ego Processes, Resourcefulness, Young adults

Introduction

Life demands an adaptation basically at every stage and more so over in the face of adversities. The relationship between the risk, the resourcefulness and demand is quite complicated and needs to be worked out on an individual level along with community. What factors or processes enable this ease or rather strength of adaptation has been a question persistent and searched for too long. The scientists in the field of social science named this successful adaptation and emergence as Resilience. Even though it's been under study from several decades several confusions remain for Resilience in conceptualization and domain specification. The reason for this being that mostly the researchers have defined it differently thus resulting in lack of uniformity across studies.

Resilience is the capacity to maintain competent functioning in the face of major life stressors. (Kaplan, Turner, Norman, & Stillson, 1996, p. 158)

George Vaillant (1993) defines resilience as the “self-righting tendencies” of the person, “both the capacity to be bent without breaking and the capacity, once bent, to spring back” . (Goldstein, 1997)

[Resilience is] the capacity for successful adaptation, positive functioning or competence ... despite high-risk status, chronic stress, or following prolonged or severe trauma. (Egeland, Carlson, & Sroufe, 1993, in Sonn & Fisher, 1998)

Different models of protective and risk factors have also emerged as a result of these investigations. Highly resilient people have certain specific characteristics as seen in several studies((Benard & Marshall, 1997; Butler, 1997; Hawley & De Haan, 1996; Rutter, 1979; Werner, 1984, 1990):

- They had pleasant, likable, social and cooperative personalities.
- They had good support systems.
- They possessed average intelligence.
- They had good bonding with Mothers in early years.
- They were first borns.
- They had minimum 2 years age gap with their younger siblings.
- Their coping skills were good and positive.
- Their Parents were strict to certain extent.
- They had good role models around them while growing up.
- They had good education; the environment at school was encouraging and highly positive where children were praised for their good work.
- They considered themselves competitive and had high self esteem.
- They enclose high-quality interpersonal relations.
- They had good self-control.

Ego-Strength

A person is said to have high ego strength when he has the potential to deal with difficult and stressful situations in a relatively stable way showing resilience and manage his emotions and anxieties well during these times. Certain defense mechanisms have been found to be helpful in the process of developing ego strength and to deal with difficult realities. The first mention of Ego and its processes was put forward by Dr. Freud. Subsequently many theorists tried to revise or add up to the role of ego processes in development of personality. One major name that comes

up here is of Erik Erickson. Erikson's theory is interplay of many factors including biological, social, behavioral and experiential. The 8 stages of development he proposed became one of his most crucial contributions to the theories of Personality. The Ego development stages and the relative adaptation of an individual to his environment is the central idea of his theory.

“Efficiency of an Ego in impulse regulation and the environment mastery is called Ego Strength” (Symonds, 1951) So it's the Ego that maintains the equilibrium of mind and body when faced with tough situations. Also, when the harmony and balance is maintained between the three elements of mind that is Id, Ego and Superego it results in a healthy and balanced mind (Engler, 2014)

Review of Literature

The first study of resilience dates back to 1955 almost where a longitudinal study on children was conducted by Werner and Smiths. In following decades some extensive researches in the field were conducted including some more frontiers of Childhood resilience to individual resilience and family resilience. (Rutter, 1979; Garmezy, 1994; Saleebey 1996; Bernard and Marshall, 1997; McCubbin & McCubbin, 1992; Goldstein, 1997; Walsh 1996).

If we look at the path Resilience has travelled over the decades we can see the changes, expansion in its horizons of study. Vast are the definitions, methods and vast are the factors that have been associated with it from time to time. Right from the longitudinal life studies to studying the cross section of specific trauma affected people, the knowledge base has increased manifold (Cosco, Kaushal, et al., 2017). It's evident that Resilience manifests in diversified ways depending upon the adversity suffered such as environmental calamities (earthquake, floods), childhood trauma, poverty, abuse to bereavement and loss. Considering this factor of diversity in studies, we have included a few reviews from studies that specifically accounted for gender differences, Resilience and Ego-strength.

Multiple studies have confirmed that females have higher symptoms of Depression and lesser self esteem in teenage years which they improved upon in young adulthood. (Galambos et al., 2006; Hankin et al. 1998; Orth et al., 2008; Cohen et al., 2003; Bonanno et al., 2007; Blatt-Eisengart et al., 2009;) Another study revealed Men turn instrumental while women turn to social support in times of need. (Sneed et al, 2006; Bonnano, 2008; Lopez et al. 1986) Instrumental here means that Men tend to strengthen their inner self or look within while faced with challenging situations of life.

Findings on Ego-Resilience

Graham Danzer in his article suggested the use of Self-Connection in clinical practice to achieve therapeutic outcomes. This he concluded post his clinical case study of Jena who survived rape and gang violence. Through the use of ego- Psychology and strength based principles by the clinical social worker, Jena successfully achieved the goals. The core of this entire study was based on resilience and it helped two theories of therapeutic approach for future preference in practice.

Another study conducted by Cherisse Seaton and Sherry Beaumont made a mark in showing connection between resilience and ego-strength. The main researched concept of this study was Ego-Resilience introduced by Block and Block in 1977. An individual who is ego resilient is able to modify his adaptation and Ego-control as par the situation demands from him.(Block and Kremor, 1996 letzring et al. 2005) The concept well connects the Strength theory of Resilience and adjustment that's the function of Ego. When combined they empower a person for better self regulation and emergence as a survivor from a difficult situation. One key point of the factors is that both are nurtured in crises period of life. However the implication of crises differs here from the general one. Whereas generally a layman considers crises as negative situation involving huge suffering, in Erikson's words "Crises is simply a critical period of life that has certain threat, risk involved along with uncertain outcomes."

Method

Aim – To study the association between Ego Strength and Resilience.

Objectives

- To find out whether significant correlation exists between Ego strength and Resilience.
- Do male and female subjects differ on Ego strength and Resilience?

Hypotheses

The Hypotheses for the proposed research were:

1. Male subjects will show higher Resilience as compared to females.
2. Male subjects will show higher Ego-strength as compared to females.
2. Subjects with high ego-strength will show higher resilience.

Data Collection

Data for the study was collected from different college going under-graduate students of Nagpur after taking proper written consent from college authorities as well as students. Standard

questionnaires were used for measurement of Resilience and Ego-strength and a personal data sheet for collecting demographic information.

Research Design

- Between group Design.

Statistical Analysis

Following Statistical techniques were applied to the data collected

- Correlation Analysis
- Descriptive Statistics(Mean and Variance)
- t-test

Tools

Ego-Strength was assessed with the help of Ego-Strength scale by Dr. Q. Hasan. The Hindi version of scale was administered that consists of 32 items in all and the testees are left to interpret the statements as they like.

For Resilience evaluation, CD-RISC was used. It is a 25 item scale that evaluates a person's ability to deal with adversities and handle related stress. Respondents have to respond using the likert scale options ranging from 'not true at all' to 'true nearly all the time' with score ranging from 0 to 4 respectively.

Results

Table 1- Frequency Table of Resilience Scores

Class intervals	Frequency
0-25	2
26-50	50
51-75	176
76-100	72

Table 1 shows the frequency distribution of resilience scores in students. Considering 75 and above as a good score we see that only 24 % students were found to have that. Majority of the students are seen having average score that is almost 59 % students. The remain students having lower scores are even greater concern for their likeliness to take much longer to recover. It's interesting to see that the variance is much higher for boys than for girls.

Table 2 - Mean, Variance and t value of Resilience of boys and girls

Group	Observations	Mean	Variance	t	Significance	
Boys	150	64.00666667	302.6375391	0.693972125	0.05	NS
Girls	150	65.26	186.6232			

Table 2 shows the mean, variance and t value of resilience for boys and girls. The mean Resilience score for boys is found to be 64.006 whereas for girls the mean score is 65.26. It could be seen that the difference is very minute and this was what came up in statistics as well. T stat being far less than t critical the difference between the scores is found to be insignificant. Hence we reject the hypothesis 1.

Table 3 Mean, Variance and t value of Ego-strength of boys and girls

Group	Observations	Mean	Variance	T	Significance	
Boys	150	18.84	28.98094	1.304995	0.05	NS
Girls	150	18	33.16779			

Table 2 shows the mean, variance and t value of Ego-strength for boys and girls. The mean for boys came 18.84 and for girls is 18. Again here the t stat proves the score difference is insignificant. Thus Male subjects did not show higher Ego-strength than females making us reject the hypothesis 2.

For finding an association between Ego-strength and Resilience the correlation coefficient was calculated. The value of r was found to be 0.248 which indicated moderate correlation between the two variables.

Discussion

Our present study investigated the gender differences in Resilience and Ego strength in Young adults and the extent of association between them. Several studies in past have examined the gender differences for Resilience the results of which have been contradictory. Most of studies concluded that males are more resilient (Bahadur, 2006) and (Bacanli, 2010) Another research conducted on Deans of universities showed that females had higher levels of resilience. (Isaacs, 2014) Assuming the differences between the results of these gender studies could be owing to the age of participants, the country of research or allied factors playing a role like culture, education, type of job etc we decided to test the gender difference for both ; Resilience and Ego-strength..

In our study we hypothesized that Male subjects will show higher Resilience as compared to females (Hypothesis 1). The t-value denoted no significant difference exists between the ratings of the two. Even the Mean value lies very close to each other. Although if we go into

details of sub domains certain differences were visible in the kind of approach males and females have towards social support and the way of life. Girls were found less likely to ask for support and when they do, they were more likely to ask Parents and Family seniors. Boys however were more inclined to ask support from friends. This is bit different than the previous findings that females turn to social support while boys turn inwards in hard times. (Sneed et al, 2006)

Our second hypothesis was that Male subjects will show higher Ego-strength as compared to females. Here also the values were found to be close and showed no significant difference statistically. Thus we reject the second hypothesis as well. Considering the effects that family environment and social obligations have on a person, which in our society being male dominated are very different for males and females, it is good to see that no gender differences exist on two crucial dimensions of Resilience and Ego- Strength. However our study focused on only one group of people for this that are undergraduate students.

Our hypothesis three was tested with the calculation of correlation coefficient to check whether association exists between Ego-strength and resilience. The value of coefficient $r = 0.248$ revealed that the two factors are moderately correlated. This adds up another factor to the existing protective factors of Resilience studied in previous researches.

Moderate correlation denotes one more thing. It shows that some students who are good at resilience are not good at Ego-strength and vice versa. This might be because they can emerge if anything adverse happens but the anxieties that are result of those happenings remain for those times. Similarly a person might remain balanced during the time of crises but take long to stand back as stable once difficult times have passed.

There are several possible reasons why the correlation coefficient is found to be moderate. It could be due to that variables do not have a direct relationship of cause and effect but rather a mediation effect. The particular concept of resilience selected or the particular test selected show a moderate connection. Possibly some other test connecting some other sub-factors of Resilience might show higher correlation.

Recommendations

Study revealed that lots of students still have low levels of resilience and hence training programs can be executed at college levels for its improvement. Current study was conducted on undergraduate students so further studies need to be conducted with different populations

varying on age and education. More research including effects of training sessions and practical implications are needed in the field.

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32. Mental Health of Non - Sportsperson and Sportsperson

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Abstract

This study was planned to examine the difference in mental health of Non-Sportsperson and Sportsperson in association with gender: Total sample comprised 100 Non-Sportsperson and Sportsperson (50 each Non-Sportsperson and Sportsperson in the age range of 20-40 years) Half of the subjects were male and the other half were female. A Mental Health Questionnaire (MHQ) was used to assess mental health. Significant F values indicated differences between the two types of Non-Sportsperson and Sportsperson and also between males and females on the measure of mental health. The interaction effect of independent measures is also significant.

Key words: Non-Sportsperson and Sportsperson, Mental health.

The preamble of world Health Organization's charter defined health as a state of complete physical, mental and social wellbeing, not merely the absence of disease or infirmity Mental Health has been reported as an important factor influencing individual's behavior, activities, happiness and performance. The chief characteristic of mental health is adjustment The greater the degree of successful adjustment, the greater will be the mental health of the individual.

Mental Health is a crucial psychological factor with respect to human behavior. Health is perceived as one of the principle requirements for social welfare frameworks. The health and welfare frameworks on the planet raise their objectives from the arrangement of health care to a formation of a healthy community. As indicated by World Health Association, mental health is a condition of prosperity wherein each person's understand their own potential, can fight with the typical life stresses, can work beneficially and productively and competent to make a network contribution.

Mental health is depicted as more than the nonattendance of mental handicaps and various elements like social, mental and organic can dangers to mental health. It very well may be likewise portrayed as a sickness that is analyzed and causes significant changes in persons thinking, enthusiastic state and conduct and disarrange the person's capacity to work and support

individual relationship. Lately, numerous individuals are experiencing mental health issues more than anything so they have a lot of consideration about mental and psychotherapy. In excess of 150 million individuals are enduring some type of mental issue particularly in creating nations on the planet. These figures are to some degree included higher populace development, way of life changes, family breakdown, monetary issues and so on. Therapists have distinguished probably the most ideal ways that activity is great treatment for the decrease to mental health.

Method

- **Sample:** - A purposive sampling technique was used in this investigation. The overall sample consisted of 100 Non-Sportsperson and Sportsperson between age group of 20-40 years. Half of the included sample was derived from Mathura district graduate colleges; the other half of the sample was collected from Physical education colleges. Half of the subjects were male and the other half were female.
- **TOOL:** A Hindi version of Mental Health Questionnaire developed and standardized by O.N. Srivastava and U.K.Bhat was used. The split half reliability of the test was found to be 0.70 (Spearman Brown Formula). The validity of the test is also high MHQ scores differentiate the neurotics from the normal at a statistically highly significant level.

Results and Discussion

Table 1- Descriptive Statistics for Mental Health

GROUP	MEAN	SD	N
Non-Sportsperson Male	33.52	7.95	25
Non-Sportsperson Female	45.76	8.02	25
Sportsperson Male	52.22	6.28.	25
Sportsperson Female	57.48	9.61	25
Sportsperson (combined)	39.64	7.98	50
Non-Sportsperson (combined)	55.35	7.95	50
Males (combined)	43.37	7.12	50
Females (combined)	51.62	8.82	50
Entire sample	47.49	7.97	100

Table 2 Summary of the 2x2 ANOVA with Living Status and Gender as the Independent variables and Mental Health as Dependent variable

Source of Variation	Sum of squares	df	Means square	F	P
(Sportsperson / Non-Sportsperson)	12340.21	1	12340.21	190.26	<.001
Gender	3403.13	1	3403.13	52.47	<.001
Error	12712.66	96	132.42		
Total	28456.00	99			

Table 1 indicates the Means and SDs of Non-Sportsperson and Sportsperson as well as Males and Females. The means of Non-Sportsperson and Sportsperson on mental health measure are 55.35 and 39.64 respectively. The mean of Sportsperson is less than the mean of Non-Sportsperson. (Low Score indicates good mental health and vice versa).

As per Table 2. F value 190.26 is significant ($P < .001$) Sportsperson are significantly better than Non-Sportsperson on mental health measure.

Sports person are very much open for new challenges they are physically active that's why their mind is distract from daily stressor's. Sportsperson easily avoid negative thoughts.

Table 1 reveals that the meant of Male and Females on mental health measure are 43.37 and 51.62 respectively. As per Table 2. F value 52 47 significant ($P < .001$) Thus Males have good mental health than Females (Low score indicates good mental health and vice versa)

In sum, the results of the present study clearly evidenced the differences in mental health between Non-Sportsperson and Sportsperson and also between Males and Females.

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33. A Study of Correlation between Anxiety and Self-Confidence of Female Volleyball Players of RTM Nagpur University

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Abstract

Introduction

All the players experience anxiety before the tournament that so frequently occur in response to stress. This anxiety can affect their self-confidence. Players react in a manner which can negatively affect their on-field performance. In this study the co-relation between anxiety and self-confidence is measured.

Objective

The main objective of this study is to measure correlation between cognitive anxiety and self-confidence

Methodology

Study design: Random sampling method was used to collect the data. A standard questionnaire was prepared (Ranier Martin) Sample size: 30. Sex: Female **Protocol:** All participants completed CSAI-2(Competitive State Anxiety Test) questionnaire for measuring pre-game anxiety. The teams were ranked according to their performance in the tournament.

Statistics: Pearson coefficient of correlation test was used to measure the correlation between PCA and performance.

Results

All teams had average level of anxiety (SCAT score lies between 13 and 26). There was a moderate negative correlation between PCA and performance ($p < 0.01$).

Conclusion

The present study supports that as the PCA level decreases the performance increases.

Keywords: PCA, CSAI-2, Anxiety

1. Introduction

The theoretical relationship between competitive anxiety and sporting performance is recognized as one of the most widely debated and researched areas in sport psychology (see Woodman & Hardy, 2001). Considerable understanding of this relationship has been achieved through the development of the competitive state anxiety inventory-2 (CSAI-2; Martens, Burton, Vealey, Bump, & Smith, 1990) and the subsequent theoretical predictions of multidimensional anxiety theory regarding the relationship between the CSAI-2 subcomponents and performance (Martens et al., 1990). However, in spite of these advancements, empirical findings investigating the anxiety–performance relationship have proved somewhat inconsistent, accounting for less variance in performance than expected (Woodman & Hardy, 2001). This has led to the criticism that studies have focused upon the additive rather than the interactive effects of the subcomponents of state anxiety upon performance (Hardy, 1990).

With people being able to get out and compete, train or play sports matches again, many are struggling with competitive state anxiety. This is something we can work on with simple exercises and strategies and in many ways there are parallels with the work world and competitive sport, both can result in worry and anxiety which can be controlled. . Here is a longer read post looking into how you can tackle your competitive anxiety. But first let's understand what state anxiety is...

State anxiety is common among athletes from a wide range of disciplines. Before a competition or match, the pressure can be on to win and to be the best. Athletes of all levels can place numerous stressors upon themselves, from training and competing to winning and beyond. It's no surprise then that many develop competitive state anxiety.

Competitive state anxiety occurs when the demands of the sport are greater than that athlete's perceived abilities. While a bit of anxiety before a competition gives us the push we need to tackle challenges, uncontrolled anxiety can wreak havoc on your performance.

2. Methodology

2.1 Study design: Present study was a cross-sectional study.

2.2 Sample size: 30 female volleyball players were recruited from University level teams.

2.3 Procedure: All athletes who participated were, players of inter-collegiate tournament

held at RTM Nagpur University, Nagpur. To achieve the aim of present study, (30) female volleyball Players, were selected as subjects from different colleges. Age of the subjects ranged between 18-25 years. The psychological characteristics as sports anxiety were being relevant and contribute factors for performance efficiency of volleyball. Hence, this variable was considered appropriate for purpose of the present study.

2.4 Protocol

In this study Competitive State Anxiety Test (CSAI-2 . Martens, 1990) was used to measures the trait anxiety of players (Marten *et al.* 1990). This test was used to evaluate the anxiety and self-confidence level of university female volleyball players. The test includes twenty two items. The CSAI-2 is a 22 item inventory with scores ranging from 10 (low) to 30 (high). Score sequence was 1, 2, 3, and 4 for (1) Response not at all (2) somewhat (3) moderately so and (4) very much so. The seven test items which were taken for the scoring purpose for anxiety were 1, 4, 8,13,16,19 and 22. For self-confidence seven items were taken for scoring purpose 3,5,7,10,12,15,18 and 21. Scores obtained for each statement was added up which represent an individual's total score on Competitive State Anxiety. Then the CSAI-2 score was analyzed.

3. Statistics

Data were analyzed using IBM SPSS v21.0 software. Pearson coefficient of correlation test was used to measure the correlation between anxiety and self-confidence. **4. Results**

All players had level of anxiety (CSAI score lies in between 13 to 30). There was a weak negative correlation between anxiety and self-confidence ($p < 0.01$).

Table 1: Descriptive Statistics and Spearman's Correlation of Anxiety and Self-Confidence.

S. No	Variables	low score	High score	Mean	r value
1	Anxiety	13	30	22.2	0.586
2	Self-confidence	11	31	23.5	0.814

* Significant at 0.05 level. $r_{0.05} = 0.361$

It is observed from Table that there is a significant relationship between Self-confidence and anxiety as the correlation was 0.814, 0.586 respectively were higher than the required magnitude of correlation (0.361) to be significant at 0.05 level. The relationship of Self-confidence other factors, comfortabl ,feel at ease, confident about performing, mentally relaxed factor, were not statistically significant.

5. Discussion

Performance is commonly measured parameter for success in sports which may be affected by some factors like anxiety and self-confidence. Some of the athletes may have the best performance in practice session but in the competition feel some kind of fear. Competitive state anxiety is one of the factors that athletes may have before competitions or may have after competition. PCA (Pre Competitive Anxiety) affects the achievement of the players and if it is more means the player is more conscious; the output of the athlete's performance will be less (Mir Manssori, 1994) [9]. Some studies emphasize on the relation between anxiety and self Confidence and conclusion of these studies shown that anxiety have a negative effect on athletes (Maessomi, 2008; Mossavi, 2011) [7, 8]. Pre competition anxiety can be cause of decrease in level of achievement particularly during the competition (Sanatkaran, 2007) [6]. As a consequence of this, the level of competitive state anxiety and the impact of anxiety on player's achievement can play significant roles in player's goal. And if we know the situation then we can work in the direction to improve the knowledge of the coaches and decrease the level of anxiety of athlete which improves performance, hence benefit to athlete. Results of the study about 30 students were in agreement with researches of (Krane, 1989; Radochoński, 2011; Craft 2003) [13, 14, 10]. Hence it is proved that there must be significant relation between performance and pre competitive anxiety in the most of players. Kaur (2010) [12] had done a study on comparison of competitive anxiety in successful and unsuccessful men, who played hockey, concluded that successful athletes could manage their anxiety in an intermediate level while the unsuccessful athlete fails to do so during the competition [12]. Craft (2003) [10] concluded that there is a mean value of self-confidence is 22.2 and cognitive anxiety value is 23.5 weak relation between anxiety, self-confidence and performance [10]. Varun *et al.* (2017) [15] demonstrates moderate negative correlation between PCA and performance in elite RTM Nagpur university level female volleyball players and recommend identifying the individual players with high anxiety level and train them through positive thinking and other mental techniques so that chances of their team's success will be increased [14, 15].

6. Conclusion and Recommendation

As the r value is 0.361 which is closer to 0 hence there is no correlation between anxiety and self-confidence.

It should be mandatory to measure PCA and find some solution to resolve the problem of pre

competitive anxiety

The sports authorities, coaches and supportive staff should work on reason behind anxiety and find solution to remove causing factor of Pre competitive anxiety among players.

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34. An Analysis of Mental Toughness among the Inter Collegiate Players

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Abstract

Success is influenced by psychological aspects like mental toughness, which is a crucial psychological quality. This study's goal was to analyse the intercollegiate players' mental toughness. The Mental Toughness Questionnaire was one of the tools used in this investigation. After the investigation of final the Inter Collegiate players' from Manonmaniam Sundaranar University had low level of mental toughness was shown by the findings. Analyses of descriptive data had showed that total mental toughness was significantly impacted. The results of the descriptive analysis revealed that there was no meaningful suggestion among the mental toughness. The study's findings indicated that the players' mental toughness was insufficient at their participating level. According to this study, players who want to perform well in contests should engage in psychological skill training to strengthen their mental toughness.

Keywords: Mental Toughness, Inter collegiate players, Psychology.

Introduction

The ability to deal with difficulties and persevere under duress is known as mental toughness, which has been examined as a significant individual difference factor. Sport is where mental toughness receives the most attention, although its effects are increasingly understood in a wide range of other fields. Positive psychological resources are included under this general phrase, and they are significant in a variety of circumstances for accomplishment. [1]

To assist athletes in performing at their best and excelling in competition, research in applied sport sciences has found that mental training is extremely important in addition to technical, tactical, and physical preparation. Athletes compete at the highest level when their physical, technical, tactical, and skill levels are almost identical. But only one winner will be

determined. According to Cox (2012), psychological profiles can be used to distinguish elite athletes from competitors with less competence. The best predictors of athletic performance have been shown to be psychological profiles that contain situational measurements of psychological states. The majority of great athletes and coaches think that mental preparation is essential for success. Many individuals consider mental toughness and concern about competition to be significant psychological traits that influence success. [2,3,4]

High mental toughness athletes are better able to control negative and possibly crippling emotions like competitive nervousness. S. Hanton, M. O'Brien, and S. D. Mellalieu (2003) described mental toughness as possessing the innate or acquired psychological advantage that enables athletes to handle pressure better than rivals while remaining focused, assured, and in control. As was previously said, although there have been many models and frameworks for mental toughness, Jones and Moorehouse (2007) established a helpful practical framework based on the features of mental toughness research that groups the numerous attributes into the four pillars of mental toughness (i.e., motivation, self-confidence, attentional focus, and coping with pressure). The four pillars of mental toughness can serve as an organized framework for identifying tactics to educate and develop mental toughness from a practical standpoint. Following a brief description of each of the four pillars, concrete advice on how to develop mental toughness through either instruction in mental skills or the creation of favorable conditions is provided, such as the physical, mental, emotional, and social.

Statement of the Problem

The Aim of the study to analyses the Mental Toughness of Inter Collegiate Players in Manonmaniam Sundaranar University, Tirunelveli.

Methods

The research involved 60 players from intercollegiate tournaments held at Manonmaniam Sundaranar University in Tirunelveli. The chosen participants were both male and female and ranged in age from 18 to 25. The players' mental toughness was assessed using the translated version of A. Goldberg's (2012) Mental Toughness Questionnaire (MTQ) by Nur Haziyanti Mohamad Khalid (2019).

Scoring

The five criteria of the Mental Toughness Questionnaire (MTQ) are: Reboundability, handling pressure, concentration ability, level of confidence, motivation. Thirty items make up

the MTQ questionnaire. Every statement can have one of two True or False responses. Every section with a score of 6 indicates a particularly strong competency. A score of 5 indicates strong performance, whereas a score of 4 or lower indicates a mental deficiency that has to be corrected. A score of 26 to 30 shows strong mental toughness overall. Getting a 23–25 means you have ordinary to moderate mental toughness. A score of 22 or lower indicates a lack of mental toughness and the need to devote more time to mental training.

Measurements of the mean and standard deviation of the mental toughness tests were made using descriptive statistics. The criterion for significance was fixed at 0.05.

Results and Discussion

Descriptive statistics were used in MS Office Excel for data analysis in order to report on the profiles of respondents and their mental toughness. An overview of the scores for mental toughness is shown in table 1. All respondents received the results that were below 21 which is 17.03, indicating that they lack of mental toughness and should begin focusing more on mental training.

Table 1: Overall Mental Toughness Score

Score	Number of players	Mean Value
26 - 30 (High)	None	-
22-25 (Moderate)	None	-
21 and below (Low)	60	17.03

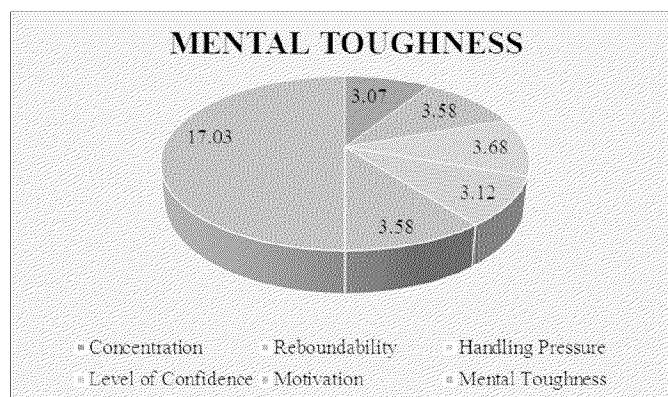
Below in table 2 displays the means and standard deviations for each of the five MTQ subscales. In terms of concentration (M=3.07, SD=1.44), reboundability (M=3.58 SD=1.32), handling pressure (M=3.68 SD=1.38), confidence (M=3.11, SD=1.51), and motivation (M=3.58, SD=1.34), descriptive analysis revealed that all players lacked mental toughness. They exhibited a poor level of mental toughness, according to their overall mental toughness score (M=17.03, SD=4.05).

Table 2: Descriptive Analysis of Mental Toughness

Subscales	M	SD
Concentration	3.07	1.45
Reboundability	3.58	1.32
Handling Pressure	3.68	1.38
Level of Confidence	3.12	1.51
Motivation	3.58	1.34
Overall Mental Toughness	17.03	4.05

Figure 1 shows the means for each of the five MTQ subscales. In terms of concentration, reboundability, handling pressure, confidence, and motivation, descriptive analysis revealed that all players lacked mental toughness. They revealed a poor level of mental toughness, according to their overall mental toughness score.

Figure 1: Mental Toughness



Conclusion and Recommendations

This study aims to evaluate the intercollegiate players' mental toughness. The athletes' results on all of the subscales, including motivation, confidence, reboundability, handling pressure, and concentration, suggested that they lacked mental toughness. Numerous experts have noted that mental toughness is a key factor in sports success, which is cause for concern [18]. Previous research on mental toughness and performance by P. Clough, K. Earle, and D. Sewell (2002) and L. Crust and P.J. Clough (2005) has repeatedly established an association between improved cognitive and motor abilities and greater levels of mental toughness.

According to the study's findings, all of the athletes had mental toughness scores below 4, which indicates that they have weak mental toughness. As a result, it is recommended that the athletes undergo comprehensive psychological skill training.

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35. The Effectiveness of Patellar Bracing along with the Therapeutic Muscle Strengthening Exercises Versus Occupation Based Intervention along with Therapeutic Muscle Strengthening Exercises in Management of Patellofemoral Pain Syndrome in Sport Persons : A Comparative Study

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Abstract

Sports injuries particularly to the knee are very common in young athletes. Recurrent knee injuries are keeping the athletes off the ground. All though the conventional therapeutic exercises program along with the knee brace may relieve the pain but doesn't assure occurrence of knee injuries in future. Occupation based intervention improves sports performance and is typically developed by consistent training.

The aim of the study was to find out the correlation of Occupation Based Intervention (OBI) along with therapeutic Muscle strengthening exercises and therapeutic muscle strengthening along with knee brace on PFPS in sport persons. The study design was experimental randomized control trial study. Total 58 athletes between the age group of 18 -45 both male and female were included in the study from tertiary care Hospital and research centre in Nagpur region. The results of the present study showed that there was moderately positive and significant correlation ($P < 0.05$) between OBI and therapeutic exercises group than the group getting conventional treatment of therapeutic exercises and knee bracing only. The study concluded that OBI along with therapeutic muscle strengthening exercises were discovered to be correlated with improvement in knee functions which intern results in the improvements of sport performance and reduction in off the ground duration during rehabilitation duration.

Keywords: Therapeutic Exercises, Occupation Based Intervention, Patellofemoral Pain Syndrome (PFPS), Patellar knee Brace.

Introduction

Patellofemoral pain syndrome (PFPS) is a common lower extremity condition seen in active individuals without the presence of intra-articular damage or true mechanism of injury. It is a challenging pathology due to the heterogeneous presentation of symptoms between individuals¹. It has been documented that those with PFPS can have pain with prolonged sitting, stair ambulation, kneeling, squatting and jogging. PFPS is characterized by diffuse anterior knee pain, provoked by activities that load the knee joint, such as squatting and stair climbing. Such diverse presentation of symptoms suggests that 7.8% of the general population has been diagnosed with PFPS and there are even higher rates of treatment for the sporting and recreationally active individual (up to 25%). It has also been previously reported that 75% of individuals with PFPS decrease or cease their other activity due to diffuse pain. Furthermore, the recurrence rates for PFP are as high as 90%.¹

Most of the studies on conservative management of the PFPS uses varied therapeutic techniques without general consensus. It includes exercises for knee and hip muscle strengthening, bracing and orthotics, electrical stimulation, open and closed chain exercises, kinesio taping etc. But few studies so far have focused on occupation Based intervention approach in treating knee pathology. Inclusion of the OBI as a remediation agent along with conventional strengthening exercises programme to restore a client's physical functions has been used sparsely so far in management of knee pathology. Occupation based intervention (OBI) is the corner stone of Occupational therapy management and constitute the major component of conventional OT protocol. Hence to increase the evidence base of the OBI in management of knee pathology, this study is being undertaken.

Aim and Objective

To compare the effectiveness of patellar bracing along with the therapeutic muscle strengthening exercises versus occupation based intervention along with the therapeutic muscle strengthening exercises in management of patellofemoral pain syndrome in sport persons.

Hypothesis of the Study

Null Hypothesis

Patellar Brace along with the Therapeutic Muscle Strengthening Exercises as well as Occupation Based Intervention (OBI) along with the Therapeutic Muscle Strengthening

Exercises would have no significant effect in management Patellofemoral Pain Syndrome in sport persons.

Alternate Hypothesis

Occupation Based Intervention (OBI) along with the Therapeutic Muscle Strengthening Exercises would be significantly more effective than Patellar Brace along with the Therapeutic Muscle Strengthening Exercises in management of Patellofemoral Pain Syndrome in sport persons.

Methodology

The study design was experimental, interventional, comparative study, carried out at a tertiary care Hospital and research Centre. Total 58 (Group A – 29 and Group B – 29), patients were included in study Inclusion criteria was Individual having history of sport, athletic and recreational activity participation, Individual diagnosed with PFPS, Unilateral knee involvement, Duration of pain since 1 month (Four Weeks). Exclusion was History of traumatic knee injury, knee effusion, Inflammatory joint pathology, Infection, Lower extremity fracture, Congenital deformities of knee & ankle, Bilateral knee involvement. Group A patients were received the therapeutic muscle strengthening Exercises along with Patellar Brace and Group B patients were received Occupation based intervention along with the therapeutic muscle strengthening Exercises. The Occupation Based Intervention (OBI) was less resource-intensive rehabilitation program for PFPS patients to be included in their daily life. OBI was a holistic and patient centric rehabilitation training based on PEO Model. OBI was customized & tailored made rehabilitation training and educational protocol considering patients need, interest, resources available, occupation and home environment (Human- Non-Human). It was an individualized approach programme which gave importance to decision making of the participating patients on prioritizing occupation based goals setting. (i.e. Short term & Long Term). OBI incorporated in its regime the planned purposeful activities which were mimic the ADL and I-ADL activities which intern facilitated early functional restoration. It was also incorporated energy conservation and work simplification, joint protection techniques. It included teaching techniques of Minimal loading of affected knee joint and gradually increasing it up to maximum level by means of activity ladder i.e. Gradation of purposeful therapeutic activities from simple to complex. OBI aided in reducing the fear associated with disablement because of activity restriction and participation limitation of the patient.

For PFPS, OBI included Patient education as follows

Patients were educated on correct foot-knee-hip alignment during activity of daily living (ADL) in relation to physical activities and training or exercises. The patients were instructed to focus on pointing the knee in the same direction as the pointer toe (second toe) whenever the foot was bearing weight. If the patient typically feels pain and discomfort during activities, such as cycling, running, climbing stairs, walking, and rising from a chair then the patients were educated on how to correctly perform those activities with neutral foot-knee-hip alignment.

Controlled pain was only allowed during activities. Pain during ADL was kept at a minimum. Pain-inducing training (sport participation) was delayed if pain caused discomfort or gradual return to sport was initiated if pain was within tolerable limit. Education regarding goal setting to prevent re-injuries and its long term consequences were taught to patient.

The intervention was focused on activity modification and load management, where the athletes after an initial reduction in sports participation (to reduce knee joint loads) were gradually introduced and exposed to increasing knee joint loads. The initial activity and load modification included factors contributing to PFP, risk of PFP load and avoidance of activities that aggravated the knee pain. In continuing next level, athletes were instructed in further load management via progressive home-based hip and knee exercises and an activity ladder. The aim of the activity ladder was to gradually expose athletes to activities with higher knee joint loads based on their own assessment of symptoms. When they could perform an activity within the pain free zone, without a pain flare-up, they were instructed to progress to the next level. At last participants were instructed to perform home-based weight bearing hip and knee exercises and gradually return to sport through a preplanned model, starting with participation in warm-up and then adding 15 minutes per week, using the pain-monitoring model as guidance. Both the groups received the respective management program for the duration of the 3 month (12 weeks). The patients were evaluated using scale given in assessment category along with case record form. Initially, selected patients were evaluated on first day of intervention (Base line Evaluation) and later on after 6 week (intermediate Evaluation) and at the end of 12 week (Post treatment Evaluation). Patients were treated for five days a week for approximately 45 min to 60 min (about one Hour). The total three assessment scales were used i.e. Canadian Occupational Performance Measure(COPM), Kujala Anterior Knee Pain Scale, Lower Extremity Functional Scale(LEFS). Individualized outcome measure used to detect changes in the self perception of

the client's performance and satisfaction over time by identifying problems in performing activities of daily living. Kujala Anterior Knee Pain Scale is a patient-reported outcome survey and diagnostic tool that aims to assess the severity of symptoms and physical limitations in patients with patellofemoral pain syndrome (PFPS) The lower extremity functional scale (LEFS) is a valid patient-rated outcome measure (PROM) for the measurement of lower extremity function.

Table: 1 Distribution of Patients According to Age-Group in Group B.

Age-group	No. of healthy subjects	Percentage
18-24	29	100%
25-32	0	0%
33-39	0	0%
40-45	0	0%
Total	29	
Mean± SD	20.48 + 1.61	

Table 2:- Showing comparison of mean COPM performance component for Group A and Group B.

For Group A

	Baseline	6 th Week	12 th Week
Mean	5	7.103	7.103
Std. Deviation	0	+ 0.8170	+ 0.8170
P value	Baseline Vs 6 th Week P < 0.001 ^{***} Baseline Vs 12 th Week P < 0.001 ^{***} 6 th Week Vs 12 th Week P > 0.05 NS		

For Group B

	Baseline	6 th Week	12 th Week
Mean	6.517	7.517	8.310
Std. Deviation	+0.1617	+0.8710	+0.6603
P value	Baseline Vs 6 th Week P < 0.001 ^{***} Baseline Vs 12 th Week P < 0.001 ^{***} 6 th Week Vs 12 th Week P < 0.01 ^{**}		

Table 6:- Showing comparison of mean COPM Satisfaction component for
Group A and Group B.

For Group A

	Baseline	6th Week	12th Week
Mean	5.655	6.138	6.138
Std. Deviation	+ 1.203	+ 0.9151	+ 0.9151
P value	Baseline Vs 6 th Week P < 0.001 *** Baseline Vs 12 th Week P < 0.001 *** 6 th Week Vs 12 th Week P > 0.05 NS		

For Group B

	Baseline	6th Week	12th Week
Mean	5.552	6.552	7.345
Std. Deviation	+0.9482	+ 0.9482	+ 0.7209
P value	Baseline Vs 6 th week P < 0.001 *** Baseline Vs 12 th Week P < 0.001 *** 6 th week Vs 12 th Week P < 0.001 ***		

Table8 :- Showing comparison of mean KUJALA Anterior Knee Pain Scale for Group A and B.

For Group A

	Baseline	6th Week	12th Week
Mean	72.138	76.276	76.552
Std. Deviation	+6.226	+ 5.675	+ 5.754
P value	Baseline Vs 6 th week P < 0.001 *** Baseline Vs 12 th Week P < 0.001 *** 6 th week Vs 12 th Week P > 0.05 NS		

For Group B

	Baseline	6th Week	12th Week
Mean	71.414	77.345	81.621
Std. Deviation	+6.005	+ 5.446	+ 4.048
P value	Baseline Vs 6 th week P < 0.001 *** Baseline Vs 12 th Week P < 0.001 *** 6 th week Vs 12 th Week P < 0.01 **		

Table 10:- Showing comparison of mean Lower Extremity Functional scale (LEFS) for Group A and Group B.

For Group A

	Baseline	6th Week	12thWeek
Mean	66.690	68.172	68.241
Std. Deviation	+3.083	+ 3.317	+ 3.419
P value	Baseline Vs 6 th week P < 0.01 ** Baseline Vs 12 th Week P < 0.001 *** 6 th week Vs 12 th Week P > 0.05 NS		

For Group B

	Baseline	6th Week	12thWeek
Mean	67.172	69.517	71.034
Std. Deviation	+2.536	+ 2.935	+ 2.442
P value	Baseline Vs 6 th week P < 0.01 ** Baseline Vs 12 th Week P < 0.001 *** 6 th week Vs 12 th Week P > 0.05 NS		

Results

The finding of the present study showed that there was improvement of performance and satisfaction component of the athletes immediately after 6 weeks and in long term after 12 weeks in both the groups but improvement of performance and satisfaction in OBI group was more significant as compared to the group A with $p < 0.001$ (95% confidence interval).

Discussion

The present study was designed to compare the effectiveness of patellar bracing along with the therapeutic muscle strengthening exercises versus occupation based intervention along with the therapeutic muscle strengthening exercises in management of patellofemoral pain syndrome in sport persons.

Patellofemoral pain syndrome (PFPS) is a common lower extremity condition seen in active individuals without the presence of intra-articular damage or true mechanism of injury. It is a challenging pathology due to the heterogeneous presentation of symptoms between individuals. PFPS is characterized by diffuse anterior knee pain, provoked by activities that load the knee joint, such as squatting and stair climbing. Such diverse presentation of symptoms

suggests that 7.8% of the general population has been diagnosed with PFPS and there are even higher rates of treatment for the sporting and recreationally active individuals (up to 25%). Thus the study was conducted on 58 diagnosed patients of patellofemoral pain syndrome.^{3,5}

Group A consisted of 29 patients, who received the therapeutic muscle strengthening Exercises along with Patellar Brace and **Group B** consisted of 29 patients who received Occupation based intervention (OBI) along with the therapeutic muscle strengthening exercises. Both the groups received the respective management program for the duration of 3 months (12 weeks). The patients were evaluated using scale given in assessment category along with case record form. Initially, selected patients were evaluated on first day of intervention (Base line Evaluation) at 6th week (intermediate Evaluation) and at the end on 12th week (Post treatment Evaluation). Patients were treated for five days a week for approximately 45 min to 60 min (about one Hour), with intermittent breaks.

There were total 29 patients in group A, age ranged between 18 to 45 years. In age group 18-24 there were 28 patients (96.55%), in age group 25 to 32 there was 1 patient (3.45%), 0 in age group 33 to 39 and 40 to 45. Majority of the patients were in the age group 18-24 (96.55%) as shown in **graph 1 and table no. 1**. For group B, There were total 29 patients age ranged between 18 to 45 years. In age group 18-24 there were 29 patients (100%), whereas in age group 25 to 32, 33 to 39 and 40 to 45 there were no patients. Total numbers of patients were 29 with mean age 20.48 + 1.61 years as mentioned in **graph 2 and table no. 2**. Demographic details of the patients between both the groups were matching at baseline hence both the group were comparable. Similar findings were reported in study done by **Benjamin E. Smith et. al. (2018)** performed a systematic review and meta-analysis on Incidence and prevalence of patellofemoral pain. The results of this systematic review confirmed that PFP is a common pathology among young adolescents, and those with high levels of activity, such as elite athletes and military populations. It is reported in the study, the prevalence of the young adolescent population and athletic population was more than the general population. In our study also we found majority of patients in the age group of 18-24 years and couldn't find any in age group from 25-45 years. Patellofemoral pain is often cited as an overuse injury with short periods of overuse or an increase in physical activity thought to be a particular risk factor.¹⁷

Out of total 29 patients in the study, there were 10 males & 19 females with the percentage of 34% & 66% respectively in group A and similarly in Group B. as mentioned in

graph no. 3 and table no. 3. The incidence of PFPS cases was found to be more in females than males in our study also. Thus our study is in accordance with the study done by **Michael & James et. al. (2012)** in which they suggested that females are more affected than males by a rapid increase in physical activity level, which in turn leads to a higher incidence of PFPS. **Sahar A. et. al. (2020)** reported that, in the researcher's point of view the difference on this topic may be related to the causes of anterior knee pain which are multifactorial in female. These include overuse injuries of the extensor apparatus (tendonitis, insertional tendinosis), patellar instability, chondral and osteochondral damage. Knee pain in female was associated with increased activity. Chronic overloading and overuse of the patellofemoral joint, rather than misalignment can also contribute to patellofemoral pain.^{11,16,18}

The finding of the present study showed that there was improvement of performance and satisfaction component of the athletes immediately after 6 weeks and in long term after 12 weeks in both the groups as shown in **table 4 & 6 and graph 4 & 6** but improvement of performance and satisfaction in OBI group was more significant as compared to the group A with $p < 0.001$ (95% confidence interval) as mentioned in **table 5&7 and graph 5&7**. Improvement in both the intervention groups maintained in the follow up session indicating retention of improvement. A significant improvement in the occupation-based intervention group over the therapeutic muscle strengthening training and patellar brace group persisted in the follow-up sessions, demonstrating superior generalization and transfer of learning. Participants in the occupation-based intervention group had significantly better scores for their own perception from level of performance and satisfaction (Canadian occupational performance measure) than the group B.

Our study is also aligned with the study done by **David L. Nelson et. al.** who elaborated the concept of Therapeutic Occupation / Occupation based intervention. In this article, he has built up on prior work which defined occupation as the relationship between occupation of all forms and the occupational performance and also defined the related terms, such as meaning, purpose, developmental structure, impact, and adaptation. This article shows how these terms relate to therapeutic occupation, a special type of occupation.^{12,25,37} Therapeutic occupation through occupational synthesis is the core of occupational therapy. Occupational synthesis is the design of the occupational form by the occupational therapist in collaboration with the recipient or client of services to advance therapeutic evaluation or to achieve a therapeutic goal. Therapeutic occupation then, is a meaningful, purposeful occupational performance leading to

assessment, adaptation, and compensation, all in the context of occupational synthesis. Finally, the idea of therapeutic occupation through occupational synthesis is related to frames of reference and models of practice in occupational therapy today.^{13,19,26,40}

The cause of PFPS is not clearly understood. Current evidence suggests that it is multifactorial, with patients presenting with quadriceps and hip musculature weakness, altered lower extremity kinematics, decreased flexibility and psychosocial stressors.^{2,28,29,35} **Merzenich and Jenkins** mentioned the training of behavioural state and strength of behavioural reinforcement, positive influence of meaningful stimuli, and different stimulus patterns as important factors for cortical plasticity. Other factors such as involving injured limb in performing meaningful activities, increasing focus and attention to the affected limb, and increasing inputs from the affected limb to the brain are important for improving function.^{7,10,19,24,31} An important point happened in the occupation based intervention group that benefited from natural context including real and familiar environment, objects, people, and meaningful occupations; there was significantly continued improvement in the follow up sessions. Natural context provides structured, meaningful, and enriched source of support for eliciting optimal performance, in addition to better motor skill retention and transfer.^{7,24,36,37}

This significant, on-going improvement in the occupation-based intervention group is causing a significant difference in the follow-up session between the occupation-based intervention and the therapeutic exercise group with the patellar brace. It is hypothesized that concentrating on functional activities results in the good improvement in function but has the least impact on impairment, whereas concentrating on impairment provides reductions in impairment level with the least impact on function.^{12,15,31,33,43}

Improvement in both the intervention groups maintained in the follow up session indicating retention of improvement. A significant improvement in the occupation-based intervention group over the therapeutic muscle strengthening training and patellar brace group persisted in the follow-up sessions, demonstrating superior generalization and transfer of learning. Participants in the occupation-based intervention group had significantly better scores for their own perception from level of performance and satisfaction (Canadian occupational performance measure) than the group B.

Conclusion

The patients in the occupation-based intervention group are motivated for involving their affected limb more during different activities of daily living and on ground training which help in better and faster recovery from impairment. It also reduces off the ground duration of the treatment.

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36. Effect of Gender and Types of Sport on Psychological Hardiness

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Abstract

Present study conducted to investigate the effect of types of sport and gender on psychological hardiness. In the study hundred participant were selected of which 50 from outdoor Sports (25 male 25 female) and 50 from indoor sport (50 male 50 female). 2 x2 factorial design was used to study the main and interaction effect. Two-Way Anova was used to analyse the data. Result of study reveals that outdoor sport person exhibited more psychological hardiness than endower sport person. On psychological hardiness no significant gender difference exists. Significant impact of Gender and types of sport observed on psychological hardiness.

Keywords-Psychological Hardiness, Indoor games, Outdoor games, Gender

Introduction

What are sports?

Sport refers to an activity involving physical activity and skill. Here two or more parties compete against each other sports are an integral part of human life and there is great importance of sports in all spheres of life furthermore, sports help build the character and personality of person.

Classification of Indoor and Outdoor Sports

Indoor games are those games which are played in a room by sitting there. For e.g. chess, carom, playing cards, ludo, table tennis etc. Outdoor games are those games which are played in a large area on in grounds for e.g. cricket, football, hockey, horse riding etc.

Psychological Hardiness

There are some persons who actually seem to thrive on stress instead of letting the stress wear them down. Such persons are called hardy personality, a term first coined by Suzanne Kobasa (1979). Hardiness is a personality style, which is characterized by a sense of commitment (rather than alienation), and of control (rather than powerlessness) and a perception

of problems as a challenges (rather than threats) (Santrock, 2006). In fact, psychological hardiness is composed of these three important characteristics:

- a. The first is sense of commitment or the tendency to involve oneself in whatever one encounters. Hardy people have a deep sense of commitment to their values, beliefs, sense of identity, work and family life (Ciccarelli& Meyer, 2006).
- b. The second is the belief in control, the sense that one causes the events that happen in one's life and that one can influence one's environment. Thus hardy people feel that they are in control of their lives and what happens.
- c. The third component is challenge that is a readiness to undertake change and control new activities that represent opportunities for growth. Thus hardy people interpret events in primary appraisal differently than people who are not hardy. When things go wrong when events become unpredictable, they don't see a frightening problem to be avoided but instead a challenge to be met and answered.

Since Kobasa's initial study many researchers have reported that hardiness relates to both good physical and good mental health (Nowack, 1989; Wiebe& McCallum, 1986). Hardiness may also help mute cardiovascular responses to stress (Contrada, 1994).

Why are hardy people healthier? The explanation tendered by the health psychologist is that as a result of their sense of commitment, control and challenge, hardy individuals may appraise potentially stressful life events in a more favorable way in comparison to those who are not.

Review

1. Atena Mehrparvar and Marzieh Khalife Soltani (2013) Conducted study to examine and compare psychological hardiness in the male high-school students of Zahedan Province. The research sample consisted of 400 students who were divided into an athlete group (N=200) and a non-athlete group (N=200) using diagnostic interview. Bartone's 45 item Dispositional Resilience Scale that includes the entire psychometric characteristic required for this study was use to collect data. The results showed that athletes had significantly higher score in hardiness and the control subscale than non-athletes. Moreover, no significant difference was observed between team and individual athletes. In sum, we can conclude that athletes have higher levels of psychological hardiness than non-athletes and physical activities have positive effects on hardiness. It could also be that hardy individuals tend to participate in sport activities.

2. Dina Ye, et al. (2016) [15] studied on Hardiness with data 31 Boys and 5 girls, a total of 36 adolescents with SEN. "Typically healthy teenagers can cope with stressful situations, but 59 =13 to 17 years, M=15.05 years, 110 healthy adolescents, males = 43 and girls = 67, age = 14 to 18 years, M= 15.61 years, only a portion of adolescents with SEN show sufficient expression of toughness components. There were no significant variations in the commitment indicator. When compared to normally healthy adolescents, the remaining components of hardiness are significantly lower in the subsample of adolescents with SEN."
3. Mehrparvar et al (2013) [25] conducted a study to assess and compare psychological toughness among male high-school students in Zahedan Province. The research sample consisted of 400 students who were separated into two groups using diagnostic interviews: athletes (N=150) and non-athletes (N=250). Data was collected using Bartone's 45-item Dispositional Resilience Scale, which encompasses all of the psychometric characteristics needed for this investigation. Athletes scored much higher on the toughness and control subscales than non-athletes, according to the findings. Furthermore, there was no discernible difference between team and individual athletes. To summarise, athletes have higher levels of psychological toughness than non-athletes, and physical activity has a good impact on hardiness. It's also possible that hardy people are more likely to participate in sports.
4. Desai Rahul B. 2017 conducted a study to know the differences of gender on psychological hardiness among college students. The total sample consisted of 240 subjects out of which 120 were boys and 120 were girls. The result showed that there is significant gender difference on psychological hardiness among college students.
5. Daltan Fine C.(2013) studied An Analysis of mental skills among national level Badminton players. He found that male badminton players possess higher mental skills than female players.

Significance of Study

Most athletes and coaches believe that psychological factors are as important as physical characteristics. After acquiring the necessary skills for participating in tournament, the winners are those who have the greatest control over their mind. Diligence cannot replace skills, but it can be a determinant of a win or loss in highly competitive situations. Psychological Hardy

athletes can probably achieve consistent results regardless of situational factors. Even when the conditions are not in their favour, they still maintain a positive and optimistic view and are unaffected by the pressures. They can turn stressful circumstances from potential calamities into opportunities for personal growth. Keeping in mind this facts and findings of earlier researches this study is designed to investigate the importance of psychological hardiness in sports.

Method

Research Problem: Do Outdoor and indoor sports person differ from each other with respect to psychological hardiness?

Objective of the Study

1. To differentiate between outdoor and indoor sports person on psychological hardness.
2. To study gender difference with respect to psychological hardiness.
3. To study the interaction between types of sports and gender with respect to psychological hardiness.

Hypothesis

1. There exists the significant difference between outdoor sports person and indoor sports person on psychological hardiness. However outdoor sport person exhibit more psychological hardiness than indoor sport person.
2. On psychological hardiness male and female subject will differ from each other. However male subject would show high on psychological hardiness as compared to female subject.
3. There exist a significant impact of interaction between type of sport and sex on psychological hardiness.

Sample

In the study hundred participants selected of which 50 from outdoor Sports (25 male 25 female) and 50 from indoor sport (50 male 50 female)

Tools Used

Singh Psychological Hardiness Scales: The scale constructed by Arun Kumar Singh. It consists of thirty statements with five response categories namely, strongly agree, agree, indifferent, disagree and strongly disagree. Scoring: for positive statements assign 5 score for strongly agree, 4 for agree, 3 for indifferent, 2 for disagree and 1 for strongly disagree. The exact reverse scoring should use for negative statements. The scale measures three components of

hardiness; such as commitment, control and challenge. The reliability coefficient for scale was found to be .86 computed by using test-retest method. The validity of the scale ranged from .89 to .92.

Procedure of Data Collection

The testing was done on a group of outdoor males and outdoor females. The whole procedure was explained to them clearly.

Variables under Study

Gender of the subjects and types of sports treated as independent variables. Whereas, psychological hardiness treated as dependent variable

Research Design

2 x2 factorial design was used to study the main and interaction effect.

Statistical Treatment

In this study two-way ANOVA was used to analyse the data.

Interpretation

Present research is carried out to investigate effect of gender and types of sports on Psychological hardiness. In this study independent variable is diatocromise with forming subgroup to get the following main interaction effect. Analysis of variance based on two factorial design for which two levels of each independent variables is taken into account. With permutations and combination of two independent variables, four subgroups 25 subjects in each cell are form. The factorial design is based for types of sports (A1 outdoor ,A2 Indoor),Main effect B for sex (B1 male, B2 female).Thus ,with combination of two independent variables having two levels following four groups are formed. A1B1, A1B2, A2B1, A2B2. In order to investigate effect of independent variable data were using mean, standard deviation and two-way anova. Results obtained in this regard are presented in the table given below.

Treatment of group	N	X	SD
A1 B1	25	122.52	11.99
A1 B2	25	100.2	28.92
A2 B1	25	113.08	11.30
A2 B2	25	109.56	22.13

($F=10.44, df=1$ & $96, p<0.01$)

From the observation of correspondence mean and standard deviation values depicted in the above tables reveals that the treatment group A1B1C1 scored high on psychosocial hardiness as compared to rest of the three treatment group. High score in psychological hardiness suggested high level of psychological hardiness. Though treatment group varied on mean score, in order to investigate whether the difference among treatment group is significant or not, data was followed by two way ANOVA.

Table No. 1

Summary of Two Way ANOVA on Psychological Hardiness

ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
A(Types of sports)	4173.16	1	4173.16	10.44535	0.001685	3.940163
B(SEX)	0.04	1	0.04	0.0001	0.992037	3.940163
Interaction Effect(A*B)	2209	1	2209	5.529089	0.020747	3.940163
Within	38354.24	96	399.5233			
Total	44736.44	99				

Main effect- A represents comparison between outdoor and indoor sports. F ratio in respect to this main effect found significant at 0.01 levels. Significant F ratio suggests that outdoor and indoor sports person differ on psychological hardiness. In this case outdoor sports person found better on psychological hardiness than indoor sports person because group of outdoor sports person score high on psychological hardiness. It is cleared from obtained mean value. Main effect B yielded non-significant F ratio. Because obtained F value is not greater than critical value of F needed to be significant at 0.05 levels. It denotes that male and female subjects do not differ on psychological hardiness.

Interaction AxB found significant ($F = 5.52$). Significant interaction denotes that main effect A and B interact together while developing psychological hardiness.

Recommendations

1. Further studies to undertake among top level outdoor sports players.
2. Comparative study is recommended among other outdoor sports players.

Conclusion

1. Outdoor sport person exhibited more psychological hardiness than indoor sport person.
2. On psychological hardiness no significant gender difference exists.
3. Significant impact of Gender and types of sport observed on psychological hardiness.

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37. Psychological Well-Being of Sportspersons and Non-Sportspersons

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Abstract

Physical activities are considered helpful in enhancing health and well-being. The present study investigates the Psychological well-being of sportspersons and no sportspersons. Psychological well-being scale by Anjum Ahmed was used to measure the psychological well-being of the total sample of 60 students from Nagpur University. Among them 30 were sports persons and 30 who are not into any sports activity, aged between 20 to 30 years. Data were analyzed with the help of 't' test. The result shows that 't' value is 2.90, that is significant at 0.05 level. That means there is a significant difference in the levels of psychological well-being of sportspersons and non-sportspersons. Psychological well-being can be seen higher among sportspersons.

Keywords: psychological well-being, sportspersons, non-sportsperson.

Introduction

The importance of Physical fitness has been highlighted once again recently after the pandemic hit the world; everybody started taking care of their physical health. Physical activity as a general term refers to any movement of the body that results in energy expenditure above that of resting level (Caspersen et al., 1985). Physical activities like exercising, sports and different dance forms are considered useful for regaining or restoring health. Being physically active is not only restricted to exercising but being physically active in terms of using staircase instead of elevator, running errands on foot, not sitting at one position for long also have benefits. Physical activity not only is linked to physical health but also mental health. Physical activities are considered one of the health enhancing behaviour which helps in improving the well-being of the individual. Physical activity is one human behaviour that helps both individuals and communities to survive and flourish. At an individual level, we can see that physical activity has the capacity to prevent mental illness, to foster positive emotions, and to buffer individuals

against the stressors in life. When it comes to community in which physical activity is seen as the social norm may be healthier and increase the social capital of communities. According to Hardman “Physical inactivity is a waste of human potential for health and well-being. Lack of sufficient physical activity has now been linked to at least 17 unhealthy conditions, almost all of which are chronic diseases or considered risk factors for chronic diseases as well as depression. (lineley 2004). Mental health issues may be prevented by physical activity. Exercise has been looked at as a treatment or therapy for mental illness that is already present. Exercise may improve the quality of life for people with mental health problems. So basically physical activity has a role in improving the psychological well-being of the general public. Specially sports activity which is a structured physical activity has also been linked with well-being of the individual. Sports can teach us to be more focused, responsible, and disciplined. There are numerous advantages to participating in sports. Not only does it make you stronger physically, but it also makes you stronger mentally. Running, football, cricket, volleyball, hockey, gymnastics and other outdoor sports helps in working on actual wellbeing and mental wellness. Nonetheless, a few indoor games and sports like mind games, chess, Sudoku, and so forth works on cognitive sharpness and concentration level. Psychological well-being is a core feature of mental health. Psychological well-being is a state characterized by hedonic and eudemonic facets where hedonic factors include happiness, experiencing pleasure through gratification of needs and Eudaimonic factors include self-acceptance, personal growth, purpose in life, environmental mastery, autonomy and positive emotions. There are different studies which suggest that Physical activities like sports and exercises are related to quality of life, mental health and psychological well-being.

Snyder and Spreitzer (1974) studied the involvement in sports and psychological well-being. The results revealed that the relationship between behavioral involvement and psychological well-being was stronger for females, whereas emotional involvement was a stronger predictor of positive affect among males. Psychological well-being is likely to result from the intrinsic pleasure and fun that flow from sports. Another study done by Samadi et al.(2021) on 100(50 athletes and 50 non-athletes)veterans and disabled investigated the effectiveness of sports activities on cognitive emotion regulation strategies, perceived psychological stress, and psychological hardiness of veterans and the disabled, results revealed that there is a significant relationship between the perceived physiological stress,

uncompromising emotion regulation strategies, and psychological hardiness in athletes and non-athletes' veterans and disabled and lower scores in perceived stress and uncompromising strategies of emotion regulation and a higher score of psychological hardiness in athletes' veterans and disabled. The psychological well-being of people who regularly exercise was investigated by Edwards and Stephen (2006) and the results indicated that regular exercise was associated with significant improvements in total well-being score and especially in the well-being components of mood, sense of coherence, fortitude, stress and coping. Aravena et.al(2023)studied Physical Activity, Seasonal Sensitivity and Psychological Well-Being of People of Different Age Groups Living in Extreme Environments of 370 male (n = 209; 55%) and female (n = 173; 45%) participants, The main results indicated that 194 people reported physical activity. High-intensity physical activity practitioners recorded a significantly lower proportion of SS. In terms of psychological well-being, an adverse effect was found between the Seasonal Score Index (SSI) and five subcategories of the Ryff well-being scale. In conclusion, those who perform high-intensity physical activity have a lower SS, and those who have a higher SS have a lower psychological well-being. Kolayış et.al (2022) studied the effect of 12-Weeks-of-Zumba, Bosu and Pilates on the Positive Psychological States of Women. The research consisted of control and experimental group. The experimental group comprised of 54 women, who performed one hour of 3-days-a-week Bosu, Zumba and Pilates exercises. The control group consisted of 39 women,who didn't do any regular sportive activity. The results revealed that women who regularly performed Zumba, Bosu and Pilates for 12 weeks had higher proactive personality, subjective vitality, psychological well-being and subjective happiness traits than women those who weren't engaged in any sportive activity and accordingly feel better and happier. Hemati et al. (2019) compared the psychological well-being in athlete and non-athlete women Sample consisted of 764 subjects (382 athletes, 382 non- athletes), The results showed a significant difference between athlete and non-athlete women in terms of their psychological well-being and its subscale. The psychological well-being was found to be better in athlete women. Nara(2021) studied the Effects of Physical Activity on General Well-Being and Hardiness among Sportspersons. The comparison was made between three groups (Regular Exercise group, motivated (competitive) sports practice group and control group having 30 male subjects in each group. Regular exercise group was found to be most effective in relation to all the parameters of well-being as well as hardiness Donaldson and Ronan(2006)studied the effects

of sports participation on young adolescent's emotional well-being, the results revealed the positive relationship between increased participation in sports and emotional and behavioural well-being specifically self-concept, results also showed that the children with better perceptions of sport competency have few emotional and behavioural problems.

All the above studies emphasised the importance of physical activities in enhancing well-being of the individual, especially it is highly essential for young adults to have higher psychological well-being as they have a key role in societal development that is why well-being of young adults or college students need to be studied, keeping that in mind the present study has been planned.

Objective

1. To study the Psychological well-being of Sportspersons and non-sportspersons.

Hypothesis

H₁. There would be a significant difference in Psychological well-being of sportspersons and Non sportspersons.

Method

Sample

A sample of 60 students in Nagpur was selected for the study using a random sampling/purposive sampling method. The age group was 20 to 30years. Sample consisted of 30 sportspersons (mixed group involved in gymnastics, woodball, running, swimming, cricket, karate and physical education.) and 30 non sportspersons.

Tools for Data Collection

Psychological well-being scale

Psychological well-being scale is developed by Anjum Ahmad for adults. It has 43 items. The dimensions assessed are as follows- a. Autonomy b. Environmental mastery c. Personal Growth d. Positive Relations e. Purpose in life f. Self-acceptance as well as g. tech. addiction and h. health issues..

Research Design

Comparative research design is used to compare the Psychological well-being of two groups.

Variables

- **Independent Variable:** Playing a sport/being physically active.

- **Dependent Variable:** Psychological well-being.

Procedure

Prior to the start of the study, all the participants were told about the study's objectives, and their informed consent was taken. Their identity was kept confidential. Participants' responses were assessed by the measure, called Psychological well-being scale developed by Anjum Ahmad. Mentioned scale was administered to the sample of 60 among which 30 were sportspersons and 30 were non sportspersons and responses were quantified.

Statistical Analysis

Data were analyzed using Descriptive analysis i.e. Mean, SD and 't' test was used to assess the difference in the means.

Results

Table no. 1.

Variables	Sample	Mean	SD	t
Psychological well-being of Sportspersons	30	156.03	13.68	2.90*
Psychological well-being of Non-Sportspersons	30	146.96	17.27	

After the administration of the Psychological well-being test on (N = 60), the scoring was done and the data was tabulated in Table No. 1, which shows the t score. The means for both the groups were calculated along with the standard deviation. The mean score of Psychological well-being of Sportspersons came out to be 156.03, whereas the mean score of Psychological well-being of Non-Sportspersons came out to be 146.96. The standard deviation of Psychological well-being of Sportspersons was found to be 13.68 and the standard deviation of Psychological well-being of Non-Sportspersons was found to be 17.27. Finally, the 't' score was calculated, which was found to be 2.90, which is significant at a 0.05 level of significance. This shows a significant difference between Psychological well-being of sportspersons and non-sportspersons. Psychological well-being can be seen higher in sportspersons from the means of the two groups.

Discussion

The purpose of the present study was to assess the Psychological well-being of Sportspersons and non-sportspersons. Sports comprise structured physical activities. When we play a sport it teaches us to play as a team, it also teaches us co-ordination, co-operation, adjustment, following rules, accepting failure and digesting victory. Along with the physical strength it prepares us for the life. Health encompasses absence of disease as well as state of

well-being which is an optimum state of health, happiness and satisfaction, which in turn brings peace for the individual. Physical activities have been considered important for enhancement of well-being of individual as it makes us strong mentally and physically. Sports also help us to enjoy and get entertained which helps us to improve positive emotions which are considered very effective in enhancement of overall health and well-being. The present study reveals that there is a significant difference in psychological well-being of Sportspersons and non-sportspersons. ($P < 0.05$). That means there is a difference in levels of psychological well-being of sportspersons and non-sportspersons. While comparing means of both the groups, it becomes clear that the Psychological well-being of Sportspersons is higher than that of non-sportspersons. The sportspersons in the sample are associated with different sports and most of them have played for their school, college or institutions some of them who are into physical education, plan to pursue it as career so they have identified themselves as a sportsperson who have expertise in particular field. When a person acknowledges his or her skills and talents and learns to improve it that definitely has a role in their having purpose, self-efficacy and esteem. When it comes to any physical activity like sports or exercise of any form it also work as a stress buster when in stressful condition as it releases endorphins and reduces cortisol and adrenalin. Sanders, Diego and Kaplan(2000) compared two groups of adolescents and found that the moderate sports involvement group (3 to 6 hours per week) had lower depression scores than did the low sports involvement group (2 hours or less per week), another study by Congsheng et.al.(2022) also revealed that both sports and physical activities significantly predict mental health among university students. Sports or any other physical activities like exercise or dance are generally practiced by the youth but as the person grows older these things are less prioritized, with so many studies supporting the benefits of physical activity and sports in enhancing health and well-being it can be concluded that physical activity whether it is a sport or exercise should be an integral part of our daily routine. Following could be the ways to incorporate physical activities in daily routine-

- a. Not sitting in front of a computer for more than an hour at one go, taking a break of at least 10 minutes to roam around
- b. Using stairs instead of elevators
- c. Walk while on phone call
- d. Plan a game of outdoor sport with friends

- e. Have a fitness band which will give bio feed back
- f. Offices and institutions should give a break for exercises
- g. Have a sport or exercise buddy for better compliance.
- h. School, colleges and universities giving credits for sports involvement which may motivate students to continue with their sports activities.

Conclusion

The result supports the hypothesis showing a significant difference between Psychological well of sportspersons and non-sportspersons.

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38. Exploration of Anxiety Factors among Students of Distance Learning : A Case Study of Indira Gandhi Open University

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Abstract

Present study aimed to find out the Anxiety factors among students of Distance Learning of Indira Gandhi Open University. The sample of the study comprised of 322 students of B. Ed Program selected by using purposive sampling technique. The study was descriptive in nature. Questionnaire was used as the research instrument which was based on five Likers scale. Mean score and t- test was applied by using SPSS Version 21. The result Highlighted that factors. Like lacunae in admission process Books distribution. Assignment, course tutorials and student support service were found to create Anxiety among the students of AIOU. THE overall mean values for all factors of Anxiety where slightly higher in the students as compared to female students. A significant effect of anxiety on the academic performance of distance learners was found. Present research found a significant effect of anxiety on the academic performance among distance learning students of AIOU. It is recommended that University may support student in managing their academic Anxiety through counseling and behavioral techniques.

Keywords: Anxiety, Academic Performance, and Distance Lerner.

Introduction

Anxiety is a basic human emotion that consists of fear and uncertainty and usually it occurs when an individual believes that the event is a threat to self or self-esteem. Anxiety can also be state or trait depending on its duration. Anxiety blocks the normal thought processes. It favors a passive approach to material rather than interaction with it. Anxiety is the human emotion that everyone experiences. Students experience problems during their studies, and feel anxious when taking exams or making significant life decisions. There is evidence in the literature that there is a negative correlation between anxiety and student achievement, and there is a negative correlation between anxiety and the realization of important cognitive and emotional outcomes in distance learning education (Jegade, Alaiyemola, & Okebukola, 1990).

The apparent difference between face-to-face and distance learning and the accompanying environmental variables that affect distance learners make the impact of anxiety on distance learning more likely. Gibbs, Habeshaw, and Habeshaw (1989) put it succinctly. "Anxiety causes students to consistently underperform. Anxiety in distance learners stems mainly from their life experiences, and expectations/ assumptions they make as a result. The distance learners tend to fear failure, yet conversely can have high, even unrealistic expectations of themselves. They may have had negative experiences of educations in the past, and assume that distance learning education may provide the same disempowering learning environment as that experiences by many school.

In contrast to traditional classroom instruction, various studies have been conducted to assess students' attitudes, dropouts and academic performance in distance education. Compared with classroom education, there are many factors identified in distance education of poor results and high dropout rate; boring courses, economic difficulties, lack of feedback and encouragement, isolation, lack of motivation, dissatisfaction with requirements or regulations, and changes in career goals (Bernard, 2004; Fozdar & Kumar, 2007). Saddington (1992) highlighted that the expectation of disempowerment is one of the key issues in feelings of anxiety and poor confidence. The fear of interaction with other people triggering self-consciousness, feelings of being negatively judged and evaluated, inferiority, embarrassment, humiliation, and depression which leads to avoidance from gathered activities where different types of people are present. Anxiety becomes a major concern among distance learners when they realize that they will have to give an oral presentation while using modern technologies such as multimedia presentations etc.

Review of the Related Literature

Researchers in the field recognized two types of anxiety, trait anxiety and state anxiety where trait anxiety is the tendency of each person to be relatively stable internally and able to respond to anxiety and state anxiety as the temporary emotional state of the individual, as well as the structure of the intensity that changes and fluctuates over time. This is a relatively stable and permanent personality trait that is neither bound to time nor of any specific situation. Anxiety has an adverse effect on learning and achievement because the anxiety caused in the educational environment tends to be context specific. Many types of academic-related anxiety have been identified, including computer anxiety, research anxiety, statistical anxiety, writing anxiety,

foreign language anxiety. General test anxiety and math anxiety (Onwuegbuzie, Jiao, & Bostick, 2004).

Ordinary students and students with learning disabilities are not the only students with academic anxiety. Gifted students may also suffer from anxiety disorders. Fletcher and Speirs (2012) studied how perfectionism and achievement motivation affect gifted students. Perfectionist students may undergo from academic anxiety because of unrealistic expectations set by themselves or others. Perfectionism is not restricted to gifted students. In different studies, it was found that the amount of hours worked by the students also had a bad effect on their academic performance. However, Brint and Cantwell (2008) argued that the results of their study showed that Academic performance is positively affected by the time spent with family.

Agboola and Evans (2015) conducted a research to explore the relationship between anxiety and academic achievement among international students in UK universities. The results of the study showed that anxiety was significantly associated with academic performance. Singh (2015) study focused to measure the impact of anxiety on academic achievement of under graduate students. The study was exploratory and descriptive in nature. It was found that low and moderate anxiety is positively correlated with academic achievement. Shibli (2015) conducted a study to explore the effects of anxiety on achievement and performance of college students. The analysis of responses revealed no significant relationship with anxiety and achievement. Rehman (2016) research study focused on exploring the causes of anxiety among Indian higher education students. The researchers reviewed relevant academic anxiety literature and identified factors that led to serious academic anxiety.

Statement of the Problem

Majority of the students who get admission in distance learning system have previous experience of formal education system because of that they face problems and feel anxiety that ultimately affect their learning in new setting. The present study analyzed those factors that cause anxiety in students of distance education. Furthermore, the study investigated the differences based on gender regarding the factors of anxiety.

Objectives of the Study

The following were objectives of the study.

1. To explore the factors creating anxiety among the students of distance learning
2. To explore the effects of anxiety on students' performance.

3. To compare the gender wise perception of students of distance learning about the effects of anxiety on their performance.

Research Questions

The following were research questions of the study.

1. What are the factors that create anxiety among students of distance learning?
2. How anxieties affect the performance of students of distance learning?
3. Is there any difference in perception of students of distance learning about the effects of anxiety on their performance regarding their gender?

Research Methodology

Present study was descriptive in nature. Population of the study comprised the students of Indira Gandhi Open University. The study comprised of the sample size of 322 students purposively selected (132 males and 190 Females) of M.Ed. program enrolled in Semester Spring, 2017 from Regional campus of Indira Gandhi Open university. A self-developed questionnaire based on five point Likert rating scale was used to collect the data by survey. Pilot testing was conducted to check the validity and reliability of the instrument before its administration. Mean score and t-test was applied for the analysis of data by using SPSS.

Results

Table 1

Factors of Anxiety (N=352)

s.no	Factors	Gender	N	mean	t	Sig.
1	Admission	Male	132	3.99	16.22	0.00
		Female	190	2.68		
2	Books distribution	Male	132	2.49	-10.04	0.00
		Female	190	3.95		
3	assignments	Male	132	3.43	5.33	0.00
		Female	190	3.12		
4	Course tutorials	Male	132	4.1	20.78	0.00
		Female	190	1.92		
5	Student support services	Male	132	3.41	2.08	0.04
		Female	190	3.29		
6	barrier	Male	132	4.31	1.45	0.15
		Female	190	4.14		
7	Exams	Male	132	4.08	-1.31	0.19
		Female	190	4.22		

The above table shows the mean result of factors of anxiety and results of independent sample t-test analysis, for all factors of anxiety among students under study. For most of the

factors, t values were observed less than 0.05. If we observe the overall mean values for assignments factor, the mean value was moderate in case of males and females. It supports the fact that male and female students both felt low level of anxiety due to lack of time given to prepare assignments, due dates of assignments, understanding of assignments, and assessment of assignments and tutor remarks.

On course tutorials factor, the mean value was high in case of male students and low in case of female students. It supports the fact that male students felt high level of anxiety due to poor quality of books as compared to female students. On student support services factor, the mean value was moderate in case of male and female students which revealed that both felt low level of anxiety due to lack of communication with tutors, poor feedback from the tutors, lack of communication with the regional offices.

Regarding barriers factor the mean value was high in case of male and female students which revealed that both felt high level of anxiety due to performing jobs side by side with education. Mean on factor exams was high among both male and female students which revealed that both felt high level of anxiety due to the location of exam center.

Table 2

Factors of student performance (N=322)

s.no	Factors	Gender	N	mean	t	Sig.
1	Admission performance	Male	132	2.34	-12.58	0.00
		Female	190	3.79		
2	Class grouping	Male	132	4.4	-2.36	0.02
		Female	190	4.17		
3	Exam performance	Male	132	3.96	-6.13	0.00
		Female	190	3.59		
4	Scope of degree	Male	132	3.8	8.55	0.00
		Female	190	3.09		

Table shows the mean values which represents the level of anxiety which affects student's performance felt regarding due dates of assignments by male and female students of AIOU. The mean value was high in case of female students and low in case of male students. It supports the fact that female students felt high level of anxiety regarding due dates of assignments and male students did not face such issues and their anxiety level was low.

If we observe the overall mean values for performance in assignments factor, the mean value was high in case of female students and low in case of male students. It supports the fact that female students felt high level of anxiety regarding assignments schedule and they feel that

it affects their academic performance. If we observe the overall mean values for performance in exams factor, the mean value was high in case of male students and slightly high in case of female students. It supports the fact that both felt high level of anxiety due to lack of knowledge and understanding of paper pattern, exams schedule, location of exam center, behavior of invigilators at exam center, paper marking and they feel that it affects their academic performance.

Table 3

Comparison of overall anxiety factors and overall Students performance (N=322)

s.no	Factors	Gender	N	mean	t	Sig.
1	Anxiety factors	Male	132	3.69	9.09	0.00
		Female	190	3.33		
2	Student performance	Male	132	3.63	-0.82	0.00
		Female	190	3.66		

Table above shows the comparison of male and female students regarding anxiety factors and student's performance. On anxiety factors male mean scores (M=3.69) are higher than female mean scores (3.33). A significant difference among male and female scores related to anxiety factors ($t=9.09$) and student performance ($r=-0.82$) has been found

Discussion

The purpose of the study was to search out anxiety factors among distance learners. A group of students who are studying in distance institutions face a lot of problems and anxiety factors. Research participants of this study felt anxiety due to issues faced at the time of admission, while getting a prospectus for admission, locating a bank to deposit fees, receipt of books, and shortage of time given to get ready tasks, assignments, and projects, lack of standardized and quality books. Lack of communication with tutors, poor system of feedback, communication gap between learner and regional offices of institution, due dates of assignments, comprehension of assignments, appraisal system, tutor remarks and their anxiety level was high, performing a job side by side with education, location of exam center, issues faced regarding assignments schedule. Lack of interaction with the class fellows, lack of knowledge and understanding of paper pattern. Exams schedule, location of exam center. Behavior of invigilator at exam center. regarding paper marking, detail marks sheets and degree, equivalence and scope of degree. Merrell (2008) conducted a study to know about the relationship among anxiety and task performance. Students in this dilemma may be overwhelmed by the tasks they face and

worry about their capability to accomplish these tasks and that they simply cannot complete the task effectively. The observations made in the above studies mean that there is a different degree of relationship between anxiety levels and performance.

Findings revealed that a significant difference is found between male and female university students regarding anxiety and performance. As compared to female students male students felt slightly high level of anxiety due to different factors of anxiety under study. Results of present study are in-line with the study conducted by Ahmad, Hussain, and Khan (2018) where compared to male students, female students show better performance and less anxiety. Therefore, findings of past studies are supporting the results of this research.

Conclusion

Present study was conducted to explore anxiety factors among students of distance learning in context to Indira Gandhi Open University. Students feel more anxiety in distance learning approach because due to distance they are unable to discuss or share problems with instructors on daily basis. It is concluded that the majority of the students felt anxiety due to issues faced at the time of admission, while getting a prospectus for admission, locating a bank to deposit fees, receipt of books, lack of time given to prepare assignments, poor quality of books, lack of communication with tutors, poor feedback from the tutors, lack of communication with the regional offices, due dates of assignments, understanding of assignments, assessment, tutor remarks and their anxiety level was high, performing a job side by side with education, location of exam center, and issues faced regarding assignments schedule. Lack of interaction with the class fellows. Lack of knowledge and understanding of paper pattern, exams schedule, location of exam center. Behavior of invigilator at exam center, regarding paper marking, detail marks sheets and degree, equivalence and scope of degree. All these factors are cause of students' anxiety in distance learning and affect their academic performance.

Recommendations

It is recommended to establish information desks well in reach of the students from where they can easily obtain all necessary information related to admission Administration may strengthen online information system for students that they can access information easily It is suggested to update the system of student support services in main campus as well as in regional offices and study centers. It is recommended to introduce counseling center/programs for students so that they may cope with examination anxiety, academic anxiety and management problems. As high level of anxiety is responsible for low academic performance, it is

recommended that students may be provided with satisfactory feedback by tutors. Instructors may deal students with positive behavior to overcome and reduce their level of anxiety. A healthy relationship between tutor and students is helpful to minimize the anxiety factors. The students with higher level of anxiety must be Identified and treated to enhance their academic performance and for timely and effective.

Gender-sensitive counseling and therapeutic interventions. It is recommended that instructional brochures and pamphlets for all matters regarding academic as well as administrative should be developed by the faculty and distributed among students so that majority of factors affecting anxiety may be redressed.

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39. Impact of Endurance Training on Cardio-Respiratory of Fencing Players

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Abstract

The purpose of the study was to find out the effect of endurance training on cardio-respiratory of Fencing Players. A total of 30 Male Fencing players were selected for this study. The age of the subjects ranged from 17-19 years. All the samples selected on random basis. To find the effect of endurance training on cardio respiratory of selected subjects, respiratory rate & heart rate were taken. To assess the heart rate & respiratory rate, digital instruments were administered individuals as well as small group. For this study three weeks training were planned. To find out the effect of endurance training on cardiorespiratory of Fencing players' test was used. Results found that endurance training improve the cardio respiratory functions of fencing players.

Keywords: Endurance training, Cardio respiratory, Fencing Players etc.

Introduction

Cardiovascular molding is exceptionally imperative in arriving at furthermore expanding your baseball also softball execution. Low cardio might bring persistence about weariness split What's more low energy, throughout a diversion alternately season. Poor oxygen blood supply necessary to those requests about your sport, Might bring about declining assume Also execution. Additional importantly, low persistence due to insufficient cardiovascular conditioning, will influence your capability with look after What's more keep legitimate posture Also mechanics throughout your execution raising the hazard of wounds. Football and hockey oblige cardiovascular quality What's more perseverance. Amusements require an extensive amount about prevent Also begin movements Also frequently all the last several from claiming hours. This requests vitality starting with both your vigorous furthermore anaerobic vitality frameworks. Exceptional molded players will demonstrate fewer impacts about weariness over a

solitary diversion and in addition through those spans of a long season. Also, preferred molded players are more averse to middle of the road heat-related illnesses starting with playing outside throughout that warm middle of the year months. Cardio respiratory persistence will be the level in which your heart, lungs, furthermore muscles fill in together the point when you're working out to a broadened time about time. This demonstrates how effectively your cardio respiratory framework functions, Also will be a pointer from claiming how physically fit and solid you are. It's handy to think your cardio respiratory persistence level as a result it can be made a sign of wellbeing alternately a sign that you require to enhance your level of wellness. Expanding cardio respiratory perseverance needs a sure impact around your general wellbeing. Your lungs Furthermore heart have the capacity will finer use oxygen. This permits you on exercise to more periods without getting tired. A large portion individual's can expand their cardio respiratory persistence Eventually Tom's perusing finishing general exercises. Cardio respiratory wellness includes all the of the level of effectiveness for which the muscle to has the capacity to supply addition oxygen on working muscles Throughout heightening exercise, what's more entryway adequately the individuals muscles have the ability on absorb oxygen will produce those vitality vital with contend. Cell sludge mold proselytes vitality put away in the constitution under adenosine triphosphate - ATP - vitality that is used to fuel attempting muscles. The body's common capacity will finish this substance process is the item for your vigorous vitality framework. VO₂max will be an adjusted estimation of the most extreme measure for oxygen that your constitution may be physically ready should expend with produce vitality to working muscles. It basically determines generally cardio respiratory wellness level. Heart yield determines the measure of blood those particular figure pumps through those heart clinched alongside one minute. This is computed by multiplying heart rate toward stroke volume. Those Normal grown-up holds 5 liters for blood in the form. Secondary perseverance.

Competitors who raise their heart rates on 165 beats for every moment throughout cardiovascular exercise will pump 20 with 40 litres from claiming blood through that heart for every minute, as stated by Sports wellness counsellor. This intends that body's blood supply will proceed out through the heart in any event four times for every minute.

Methodology

Selection of Subject

The sample for the study is 30 male fencing players were selected. The sample

representing Nagpur District Fencing Association. To assess the heart rate & respiratory rate, digital instruments were administered individuals as well as small group. For this three week training were planned. The age of the subjects ranged from 17-19 years and all the samples selected from random basis. To find out the effect of endurance training on cardio-respiratory of fencing players, 't' test was used.

Data Analysis and Discussion

Statistical Analysis was done on the basis of Analysis of Variance ('t' ratio) to find out the significant endurance training on cardio-respiratory whereas the level of significance was kept at 0.05 level.

Table No. 1

Significant of Mean between pre- test & post - test of Heart Rate

Variable	Pre-Test		Post-Test		MD	't' ratio
	Mean	SD	Mean	SD		
Heart Rate	104.2	10.8	99.7	11.3	4.5	3.78

*Significant at 0.05 level.

From table no.1 results found that heart rate before and after training, the mean value of 104.2 & 99.7 were observed respectively, the obtained 't' value is 3.78 was significant at 0.05 level.

Table No. 2

Significant of Mean between Pre - test & Post - test of Respiratory Rate

Variable	Pre-Test		Post-Test		MD	't' ratio
	Mean	SD	Mean	SD		
Respiratory Rate	21.7	3.09	19.8	4.20	1.98	2.02

*Significant at 0.05 level.

From table no.2 results found that mean value of respiratory rate before and after training 21.7 & 19.8 were observed respectively, the obtained t' value is 2.02 was significant at 0.05 level.

Conclusions

It is concluded that there is a significant effects of endurance training on respiratory rate of Fencing players.

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40. Depression, Anxiety and Stress among Sports Playing Students and Non-Sports Playing Students

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Abstract

The present study intends to deal with Stress, Anxiety and Depression in Sports Playing students and Non-Sports Playing students. The sample consisted of 20 students playing sports on daily basis and 20 non-sports students who never participated in sports belonging to the age group 18 to 25 years. A set of 3 self-report scales- Depression, Anxiety, Stress scale- 21 item short form (DASS-21) by Lovibond and Lovibond was used. The data were analysed with the help of t-test. The obtained t- value for Depression ($t=2.48$), Anxiety ($t=2.93$), and Stress ($t=3.08$) was found to be significant at 0.01 level. The obtained results reveal that the level of Depression, Anxiety and Stress is less in students Playing sports rather than non-sports playing students.

Keywords: Depression, Anxiety, Stress, Sports.

Introduction

Mental and physical health is fundamentally linked. There are multiple associations between mental health and chronic physical conditions that significantly impact people's quality of life, demand on health care and other publicly funded services, and generate consequences to society. The world health organization (WHO) defines: health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The WHO states that "there is no health without mental health". However is the relationship between mental and physical health more evident than in the area of chronic conditions. The associations between mental and physical health are: 1. Poor mental health is a risk factor for chronic physical conditions. 2. People with serious mental health conditions are at high risk of experiencing chronic physical conditions. 3. People with chronic physical conditions are at risk of developing poor mental health.

Mental Health

Mental health is a term used to describe emotional, psychological, and social well-being. The quality of a person's mental health is often measured by how adaptively they can cope with everyday stressors. Mental health allows people to use their abilities, be productive, make decisions, and play an active role in their communities. Having poor mental health is often confused with having a mental illness. But mental health actually refers to a person's state of mental well-being whether or not they have a psychiatric condition (Carson, etl).

Impact of Mental Health

The state of a person's mental health has a significant impact on their quality of life. Taking care of your mental health allows you to contribute to your community, cope with stress, have quality relationships, and maintain physical health. Mental health can help you to work towards your full potential in all aspects of your life. Improved mental health is also linked with better physical health. Research has found that positive mental health can reduce the risk of heart attacks and strokes. Poor mental health, on other hand, is linked with issues like increased stress, sleep problems, smoking, and substance use. If your mental health is suffering, you might feel overwhelmed more easily, have trouble maintaining relationships, and experience low self-esteem. There are many factors that influence mental health and overall well-being. Individual factors play an important part, but social, environmental, and financial circumstances can also either enhance or worsen mental health.

Depression

Depression [especially in combination with anxiety] is a very common mental disorder, affecting up to 1 in 5 people in their lifetime. It is defined as 'a medical illness that affects how you feel, think, and behave, causing persistent feelings of sadness and loss of interest in previously enjoyed activities. Depression can lead to a variety of emotional and physical problems. It is a chronic illness that usually requires long-term treatment'. [DSM-5].

Anxiety

Anxiety is an emotion characterized by feelings of tension, worried thoughts and physical changes like increased blood pressure. People with anxiety disorder usually have recurring intrusive thoughts or concerns. They may avoid certain situations out of worry. They may also have physical symptoms such as trembling, dizziness or rapid heartbeat (Sarason).

Stress

Stress is simply a reaction to a stimulus that disturbs our physical or mental equilibrium. In other words, it's an omnipresent part of life. Stress is a psychological and physiological and physiological response to events that upset our personal balance in some way. Stress can arise for a variety of reasons. Stress can be brought about by a traumatic accident, death, or emergency situation. Stress can also be a side effect of a serious illness or disease. A stressful event can trigger the "flight-or fight" response, causing hormones such as adrenaline and cortisol to surge through the body. A little bit of stress, know as "acute stress", can be exciting-it keeps us active and alert. But long term, or "chronic stress", can have detrimental effects on health. One may not able to control the stressors in their world, but one can alter their reaction to them. Stress can also help you rise to meet challenges. Stress, is what keeps you on your toes during a presentation at work, sharpens your concentration when you are attempting the game winning free throw, or drives you to study for an exam when you'd rather be watching TV. 8 Stress can arise for a variety of reasons. Stress can be bought about by a traumatic accident, death, or emergency situation. Stress can arise for a variety of reasons. Stress can be brought about by a traumatic accident, death, or emergency situation. Stress can also be a side effect of a serious illness or disease.

Sports are all forms of competitive physical activity that aims to utilize, maintain or enhance physical ability and skills through casual or organized participation.

Sports have a significant effect on a person's daily life and health, both physical and mental. While you are involved in any kind of sports, intense physical activity improves heart function, decreases the risk of diabetes, and reduces blood pressure and stress levels.

Sports have an immense effect on mental health.

1. Improves Mood

Playing sports like golf or skiing compels you to concentrate on the activities and keep worries aside. As physical activities trigger brain chemicals, individuals become happy and relaxed. Hence, sports can improve mood.

2. Reduces Stress

Today around 75%-90% of people visit a doctor to treat stress-related issues. The positive effects of sports on mental health can help individuals significantly. Physical activities result in the release of endorphins. Endorphins are the chemicals in the brain that help to reduce stress and

pain. Playing sports also helps to reduce stress hormones, cortisol and adrenaline. Studies reveal that 20-30 minutes of daily exercise allows individuals to stay calmer, which stays hours after exercise.

3. Combats Depression

One of the significant effects of sport on mental health is that it helps treat depression. As per some studies, sports, i.e. exercises, combat symptoms of depression and lower the risk of relapse. Further, in one study, light sports or a modest amount of exercise has been seen offering similar benefits to antidepressant treatment.

4. Improves Sleeping Habits

Sports improve the quality of sleep. An intense workout makes you fall asleep faster and also deepens your sleep. For instance, individuals who engage in 30 minutes of moderate aerobic exercise can experience better sleep compared to days when they did not do exercise.

5. Boosts Self-Confidence

Playing sports or participating in regular exercise can help boost self-confidence. While you engage in any kind of sport, your strength and skills increase; thereby improving your self-confidence.

In the light of these research evidences, the present study was designed to examine depression, Anxiety and stress among sports playing and non-sports playing students. Thus it was hypothesized that sports playing students will be lower on depression, stress and anxiety.

Method

Participants: The participants consisted of 20 students playing sports and 20 students who never participated in sports belonging to the age group 18 to 30 years. All the participants gave their verbal consent after receiving an explanation of the study being conducted and being informed that their participation would be strictly voluntary.

Instrument: A set of 3 self-report scales- Depression, Anxiety, Stress scale- 21 item short form (DASS-21) by Lovibond and Lovibond was used.

Procedure: All the participants were given a personal information data sheet. Thereafter the DASS-21 sheet was given to the participants who required 20 minutes to complete. The sheets were collected and the participants were thanked for their cooperation.

Results

The present study assesses the levels of Depression, Anxiety and Stress among students playing sports and non-sports playing students which has been analysed BY MEAN scores and shown in the table no. 1 below:

Table No. 1- Mean Scores

Sports Playing			NON- Sports Playing		
DEPRESSION	ANXIETY	STRESS	DEPRESSION	ANXIETY	STRESS
8.3	8.9	11.3	14	15.9	20.5

Table No. 2 – Mean, SD, t –value

	DEPRESSION	ANXIETY	STRESS
X1	8.3	8.9	11.3
X2	14	15.9	20.5
S1	5.16	5.38	6.93
S2	8.84	9.20	11.38
t	2.48	2.93	3.08

**p= 0.01

Examination of the table 2 suggests that mean value of the non-sports playing student's Depression is 14 [SD=8.844], and sports playing student's is 8.3 [SD=5.166]; the mean value of Anxiety of non-sports playing student's is 15.9 [SD=9.202], and sports playing student's is 8.9 [SD=5.385]; the mean value of Stress of non-sports playing student's is 20.5 [SD=11.381], and sports playing student's is 11.3 [SD=6.932]. The above table shows that the t-ratio of the test – depression, anxiety and stress are 2.4889, 2.93605, and 3.087501 respectively which are significant at 0.01 and 0.05 levels. Thus, it can be said that the state of- depression, anxiety and stress are low among sports playing students.

Discussion

The present study was conducted to assess and compare the level of depression, anxiety and stress among sports playing students and non-sports playing students. The findings indicate that playing sports effectively reduces depression, anxiety and stress. The depression, anxiety and stress scale-21 items (DASS-21) are a set of three self-report scales designed to measure the levels of depression, anxiety and stress. The depression scale assesses hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, and inertia. The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The stress scale is sensitive to levels of chronic nonspecific arousal. It assesses

difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/ over-reactive and impatient. Scores for depression, anxiety and stress are calculated by summing the scores for the relevant items. In the present study the result shows that there is a significant difference between the two groups, which means the depression, anxiety and stress that were measured for sports playing students were lesser than the non-sports playing students. Whereas the results show that the depression was also highly reduced after playing sports.

Conclusion

After analysis of the relevant data, following conclusion is drawn: Formulated hypothesis that sports playing students and non-sports playing students differ significantly on Depression, Anxiety, and Stress from one another has been selected.

Recommendations

Sports can be incorporated in places like societies, offices, parks, and other public places.

Limitations

Size of sample was only 40 which were small • Sample was only collected from Nagpur district.

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41. Role of Yoga for Mental Health and Psychology: Coping with Anxiety and Stress

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Abstract

Yoga is becoming mainstream on the planet. It comforts the disturbed psyche. For those who are destroyed, it is a refuge. For the average person, planning your day is important to keeping you fit and beautiful. The Power of the Creative Mind Creativity and control are two parts of the brain that support this character development. Innovation is widely understood as the center of art and technology. Sport is a way to grow mentally and physically. We explore many things during sports. We find ways to maintain mental stability in the midst of hope and despair. They make us find ways to solve a difficult scenario. Sport adds a good experience. They strengthen our team spirit. They help increase mental and physical endurance. They shape our body and make it strong and active. They give us strength and power. They remove fatigue and lethargy. They improve blood circulation. It improves the comfort of our body. This study evaluated the applicability of yoga in typical sedentary volunteers compared to a control group. The study showed a huge improvement in the yoga group in all four areas of the scale of the World Health Organization, such as the actual well-being, mental functioning, social relational area and ecological condition, in contrast to the control group. This simple and straightforward common yoga strategy will help you work towards personal satisfaction. This type of yoga practice can be practiced in everyday life to maintain a sense of well-being and also helps prevent many psychosomatic problems in which mental stress is accepted as a factor.

Keywords: Yoga, psyche, mind, development, mental, wellness, mental stress.

Introduction

Every frame of reference is recognized by the everyday person, if he can demonstrate its usefulness in his daily life. In the past, we have seen science recognized and accepted by the general public as an essential part of its fabric, when inventions aimed to give man the basics of life and a more pleasant life. We have also seen that now it is good for the society to go to yoga

because it gives a person an orbit of conscious anxiety, anxiety, passionate surprise, hyperactivity etc. that threaten the public and help inspire people. Secret human potential methodically and logically, making man a more complete man. The mindset and practices of yoga are very important in advanced life and play an important role in fighting disease and promoting wellness through a sustainable method. The norms and practices of yoga have been built to be practiced for thousands of years and have been suppressed for research in various fields such as brain research and related sciences. They are constantly tested and help to achieve ideal general well-being through regular exercise. Yoga restores our heritage and habits and supports the framework of modern medical services to prevent a significant number of advanced psychosomatic diseases. Yoga meditations are known to affect true well-being and further develop strong well-being. Yoga is an important part of this perspective in the new millennium. Raju et al (199) found that subjects practicing WHO pranayama were able to achieve higher workloads with reduced oxygen consumption per unit of work and no blood lactate. Madanmohan et al (200) showed that after 2 months of yoga training, a certain level of activity produced a milder cardiovascular response, indicative of longer training. These findings support Ray et al. (2001), yoga practice increases endurance, slows fatigue and allows lower VO2 max performance. Yoga asanas are real attention-grabbing poses that calm the brain.

Yoga and Psychology

Yoga is becoming main stream on the planet. It comforts the disturbed psyche. For those who are destroyed, it is a refuge. For the common man, planning your day is important to keep you fit and beautiful. Some use it to develop memory, knowledge and imagination. With its many advantages, it becomes part of the school. Experts use it to unlock new cognitive layers as they move toward flawlessness. Because of its objective starting point, the advanced clinical framework has replaced almost all traditional medical frameworks in various parts of the world. It has proven to be the best in saving people from the deadly hands of contagious and irresistible diseases. Be that as it may, new widespread psychosomatic diseases and mental health problems are an incredible test of the advanced clinical framework. Here, yoga undoubtedly follows a state-of-the-art clinical framework. An extensive review of yoga therapy in recent years has highlighted the benefits of yoga in the treatment of these diseases as a compelling adjunct to clinical treatment and long-term recovery. Prevention is better than cure. Yoga can play an important role in disease prevention. All gyms have started adding yoga to their schedules and

many go to these gyms just to do yoga. The promotion of positive wellness is supported by many world health organizations that do not want to cure current diseases.

Sports and yoga are a way to grow mentally and physically. We explore many things during sports. We find ways to maintain our mental stability in the midst of hope and despair. They make us find ways to solve a difficult scenario. Sports increase the experience of good. They strengthen our team spirit. They help increase mental and physical endurance. They shape our frame and make it strong and active. They give us strength and power. They remove fatigue and lethargy. They improve blood circulation. It improves the comfortable nature of our body. Sports and video games improve our skills. They increase our efficiency. Either the observation or the paintings themselves exhaust us. We are no longer green to paint. Sports remove our intellectual exhaustion. Sports are an integral part of school education. Education without sports activities is incomplete. Let's keep the fee in place, teach the kids some video games at the start of college. Today's sports activities are part of the curriculum. Sports are especially important for young people. They encourage their physical and intellectual growth. They contribute to the development of the individual. They embed real values in them. That is why sports activities are contrasting in colleges and universities. Students who do well in this opposition will be promoted to play at national and global level. Sports activities therefore also contribute to the growth of the profession. Sports and video games allow us to thrive in our existence. Sports activities today have been commercialized. They have become a great way to earn. A sportsman who is very successful in sports activities is full of name, fame and wealth. He becomes a hero overnight. Sports have a great capacity to provide professional opportunities. So we have to take them very seriously at an early age. Sport is a real way to win. Sports provide an opportunity to showcase talent. Sports activities are therefore well rewarded. Sports centers are developed in rural and semi-urban areas. There are playgrounds in the villages. Sports facilities are being developed everywhere so that they can be sold. Different leisure companies also manage to promote sports activities. Participation in elite sporting activities is stimulated by many physical, physiological, mental and sociological elements. In addition to the actual body and health of the players, the training focuses on different styles of movement skills related to the sport in addition to the strategies and approaches of the sport. There is usually little or no interest in the mental elements that have been shown to influence overall performance at higher levels of aggressive sports performance.

Anxiety

Anxiety is a sense of dread, worry, or apprehension, frequently without a clear justification. Anxiety is prominent from worry due to the fact the latter arises in reaction to a clear and real danger, which include one affecting an individual's bodily safety. Anxiety, through contrast, arises in reaction to seemingly risk free conditions or is the made of subjective, inner emotional conflicts the reasons of which might not be obvious to the individual himself. Some tension necessarily arises within the direction of each day existence and is taken into consideration normal. But chronic, intense, chronic, or habitual tension now no longer justified in reaction to real-existence stresses is normally seemed as a signal of an emotional disorder. When such a tension is unreasonably evoked through a particular scenario or object, it's miles called a phobia. A diffuse or chronic tension related to no specific reason or intellectual difficulty is known as fashionable, or free-floating, tension.

Review of Literature

Gharote, 1976; Gharote, Ganguly and Moorthy, 1976; Moorthy, 1982), adaptability (Moorthy, 1982; Govindarajulu, Gannadeepam and Bera, 2003), expanding engine control and execution (Telles et al 1994, Sahu RJ and Bhole MV, 1983b), change digestion and autonomic capacity (Telles et al 1994) and work on ventilatory elements of the lungs including a prolongation of breath holding time. Studies on training of single asanas have displayed to increment diastolic pressing factor, beat pressure following 5 minutes practice of sarvangasana, matsyasana and shirshasana (Kavalayananda, Swami 1926, Bhole MV and Lobo 1981). The acts of specific asanas are likewise displayed to increment intra-gastric pressing factor which helps in further developing the blood flow (Bhole MV, Karambelkar 1969).

Raju et al (1994) have discovered that subjects World Health Organization rehearsed pranayama could accomplish higher work rates with diminished oxygen utilization per unit work and without expansion in blood lactate levels. Madanmohan et al (2004) have shown that following 2 months of Yoga preparing, a given degree of activity prompts a milder cardiovascular reaction, proposing better exercise resilience. These discoveries are steady with discoveries of Ray et al (2001) that Yoga preparing increments solid perseverance, defers beginning of exhaustion and empowers one to perform work at lesser VO₂ max. Yogasanas are actual stances drilled with mindfulness will in general settle the brain.

Yogasanas are psycho-physical in nature and are not simple actual activities. Maharshi Patanjali depicts asana as "sthira sukham Asanam" signifies asana ought to be steady, agreeable and easy. Examination considers completed assessing the advantages of asanas have

likewise explained them as not the same as activities as proven by decreased strong electrical action during the support of asanas in a casual way though a similar solid electrical movement expanded when a similar asana was acted in an isotonic style as in practice (Karambelkar PV, Bhole MV and Gharote ML, 2006) and decrease of basal pace of energy use (BMR) (Santhanam R, 2006).

A positive psychological wellness would be accomplished by honing of view of data showing up to the mind through the entirety of our unique detects, better logical workforce (IQ), more keen memory and on the general improvement in character qualities. Studies show that act of Yogic methods cause improvement in parts of discernment, thinking, thinking, and recalling the assignment. Yogic procedures further develop mindfulness and this thusly diminishes reaction time or response time, a basic method for deciding tactile engine execution [20]. Madanmohan et al (1992) announced that Yoga practice for 12 weeks brings about critical decrease in visual and hear-able response times in the ordinary grown-up male volunteers.

Malathi and Parulkar (1989) additionally announced decrease in hear-able and visual response time after Yoga preparing. Comparative, discoveries were additionally shown following the act of mukh bhastrika pranayama (Bhavanani et al 2003). Sarang and Telles (2007) announced that Yoga practice achieves a more prominent improvement in this errand which requires particular consideration, fixation, visual examining capacities, and a dull engine reaction. In an another examination (Sarang and Telles 2006), they detailed a decrease in the pinnacle latencies of P300 after Yoga based unwinding procedure as contemplation improves intellectual cycles fundamental age of P 300. Yoga influences each cell of the body. It achieves better neuro-effector correspondence, further develops strength of the body, builds the ideal working of all organ-frameworks, expands opposition against stress and illnesses and brings quietness, balance; uplifting outlook and composure in the professional which makes him lead a deliberate and better life.

Mental Health and Nourishment

The force of creative mind Creativity and Will-control are the two parts of brain which go under this head of character advancement. It has been all around perceived that innovativeness is the center of Arts and Technology. It has been seen that yogic practices improve the innovative force of man. Thusly, numerous performers, artists, film craftsmen, specialists and technologists have been drawn to Yoga. Resolve is a fundamental necessity for all

people to achieve any work, anyway unimportant or incredible the assignment is. Yoga by its orderly and cognizant interaction of quieting down the brain eradicates the shortcoming in the psyche and assembles resolution into it. In such a brain every impediment is considered as a test and stirs gigantic energy to battle the circumstance. Valiance turns into a piece of the character. Profoundly undaunted, such an individual takes up with great balance the difficulties of life and converts them into promising circumstances for achieving his main goal.

There have likewise been various examinations recommending that Yoga produces intense physiological changes (Madanmohan et al 1983, 1992, 2003, 2004, Telles et al 1994, Telles et al 2000, Udupa et al 2003) and advances actual wellbeing by further developing execution. Bera and Rajapurkar (1993) have announced that Yoga preparing brings about critical improvement in cardiovascular perseverance and anaerobic edge. This is reliable with the discoveries of Muralidhara and Ranganathan (1982) World Health Organization have announced an improvement in cardiovascular recuperation record following multi week Yoga preparing program as shown by Harvard step test.



Fig-1 Benefits of yoga for mental health

Conclusion

This kind of yoga practice can be taken on in day by day life to keep up with great wellbeing and furthermore helps in avoidance of numerous psychosomatic issues where mental pressure is accepted to assume a part. These practices primarily decrease psycho physiological excitement yet additionally upgrade various parts of consideration, like the capacity to support;

center and shift consideration in this manner ingrains a more noteworthy sum unwinding and significant serenity. These practices mainly reduce psychophysiological stress, but also improve different aspects of attention, such as the ability to sustain; being mindful of the center and changing in this way instills greater relaxation and considerable calmness.

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42. An Article On: Proprioceptive Neuromuscular Facilitation Exercises and Basketball

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Sports science is, amongst other things, the study of exercise and people's response to exercise. Research in sports science essentially affects anyone who wants to exercise — from the absolute beginner to top performing elite athletes. On-going research in sports science is important for a number of reasons. Firstly, research into any field brings with it innovation — which drives us forward as a society. Secondly, improving athletic performance is a worthwhile aim in and of itself. Elite athletes dedicate a considerable amount of time and effort to what they do, so we want their training to be as effective and as efficient as possible. Finally, sports science research allows us to better understand which types of exercise can be effective. And this, in turn, often filters down to non-athletes. We can therefore use the findings from sports science research to not only make better training plans for everyone, but identify risk factors

How Research in Sports Science Affects the General Public

Exercise is a highly effective treatment or risk-reducer for a number of diseases and conditions, including obesity, type-II diabetes, depression, and aging. By understanding which exercises and exercise-types are most effective, we can better enhance the public's health.

Let's look at HIIT (High Intensity Interval Training) for example. HIIT was historically used by endurance athletes as a means to improve their aerobic and anaerobic fitness. However, more recently it has been explored in terms of disease-risk reduction and treatment, primarily because it is very time efficient. A famous bit of research from Japan on Tabata, showed that eight twenty-second sprints with 10 seconds of recovery between sprints over a four minute period enhanced aerobic fitness to a greater extent than longer duration, lower intensity, exercise.

Good example of how research in sports science filters down to the general public is that of Achilles tendon treatment. While most of this research was conducted in athletes, many non-athletes also suffer from Achilles tendon injuries and the research percolates down to them.

Key Words: PNF Stretching, Basketball.

PNF Stretching

PNF stretching, or proprioceptive neuromuscular facilitation, is a form of assisted stretching used to improve joint range of motion and physical performance. The modality, with

its goal of increasing or restoring one's flexibility, is often performed by physical therapists, chiropractors, personal trainers, and massage therapists as part of a specialized care plan.

When PNF is used on patients, it is often described as the instantaneous results as *magic*. After a single assisted stretch, the person receiving treatment watches their range of motion improve before their own eyes.

How Does PNF Stretching Work: PNF is a combination of two different types of stretches

1. Passive Stretching
2. Isometric Stretching

When you place a muscle group into a stretched position and hold it there for a few seconds, you're performing a passive stretch; ie. lying on your back and lifting your foot toward the ceiling. When you contract a muscle group without physically moving that muscle group, you're doing an isometric stretch; ie. placing your forearms against the sides of a doorway and lunging forward for pec stretch.

With PNF, you stretch a muscle group to its limit, and then push that same muscle group against a stationary apparatus. The apparatus in this case is the person, be it a therapist or personal trainer, assisting you. Your muscles will put forth resistance for a few seconds, then you'll take in a deep breath while relaxing the muscles, and your assistant will push your muscle group further as you exhale.

Now because a relaxed muscle is a more flexible muscle, PNF exercises tend to be most effective after a muscle is *warmed up*. A personal trainer may assist with PNF at the end of their trainee's work out. Massage therapists generally perform PNF after the targeted muscles have been massaged. A health professional might also apply direct heat, with a hot pack or a bodywork modality that produces heat (cross fiber friction, ultrasound therapy, etc.) to facilitate PNF.

Types of PNF Stretches: There are three different Types of PNF Stretches

1. Contract-Relax Method (CR)
2. Agonist-Contract Method (AC)
3. Contract-Relax-Agonist-Contract Method (CRAC)

CR: Involves contracting, holding, relaxing, and then stretching the targeted muscle group.

AC: Involves static or dynamic contraction of the opposite muscle group prior to stretching the targeted muscles, and is followed by a static or dynamic stretch.

- Static stretch: the holding of a muscle in an extended position for a period of time

- Dynamic stretch: an active movement that brings joints and muscles through their full range of motion

CRAC: A combination of CR and AC. (Sometimes called hold-relax-agonist-contraction.)

Basketball

Basketball is a team sport characterized by the execution of series of skills in multiple situations occurring across the game. In particular, game-related statistics are fundamental and their level might depend on the players' characteristics and training experience. Most of the game related statistics depends on multifactorial variables (i.e., offensive and defensive tactics) determining a complex dynamic system during games, which is difficult to control in its totality. The use of performance analysis in sport with the determination of the most important game related statistics during the game aims to improve the team performance, increasing the knowledge of the performance of each player. Specifically, game-related statistics are key tools for basketball coaches providing reliable information about teams' performance such as those distinguishing between successful and unsuccessful teams.

Previous investigations widely studied the game-related statistics mostly assessing team performance in order to determine the most valuable players and the importance of certain positions such as guards, forward and centers (e.g., Sampaio et al., 2006a), to evaluate the impact of rule changes (e.g.; Gómez et al., 2006a; Ibáñez et al., 2018), the effect of home advantage (e.g.; Carron et al., 2005; Pollard, 2008; Watkins, 2013), the importance of starters and bench players regarding their contribution to the game (e.g.; Sampaio et al., 2006b), the scoring strategies differentiating between winning and losing teams in women's basketball FIBA Eurobasket (e.g.; Conte and Lukonaitiene, 2018). It is important to note that in basketball several game related statistics have been used, while only some of them were deemed fundamental. Previous discriminant analyses quantitatively determined the team performance indicators (TPI), identified as a variable able to define the most important aspect of performance (Hughes and Bartlett, 2002) and compare different leagues (Sampaio and Leite, 2013), which most affect the game outcome (Gomez et al., 2008; Ibáñez et al., 2008). In particular, Yu et al. (2008), established a list of the most influential TPI's (Technical Performance Indices) such as points per game (PPG), field goals made (FGM), rebounds, assists, turnovers, blocks, fouls, and steals.

Sampaio et al. (2013) included also free throws as an important technical performance indicator. The TPIs with the most impact on the outcome of a season in Spanish first division (ACB) teams were shooting percentage (both 2-point and 3-point percentage), assists and rebounds (García et al., 2013; Gómez et al., 2008). However, to the best of our knowledge, no

previous investigations assessed players' individual game related statistics across a long period of time. Indeed, players' experience might play a fundamental role in improving players' game related statistics effectiveness. Therefore, studies addressing this topic are warranted.

The performance of a player across his career might play a fundamental role in distinguishing between elite and non-elite players. Indeed, acquiring playing experience, players could have a better performance due to the demand of basketball game to perform complex actions that require high anticipatory skills in difficult situations. Indeed, these high anticipatory skills can be translated into scoring and passing related variables concerning about game-related statistics (Sampaio et al., 2015), and therefore they become an important variable deeming further analysis in basketball. In fact, elite players perceive better their environmental information and are capable of adapting their behavior accordingly and consequently perform better compared to other non-elite players (Aglioti et al., 2008). Therefore, playing experience might be essential in increasing players' anticipatory skills and consequently their game performance.

It has been previously showed that performance slowly decrease after reaching the peak period of the player career (Baker et al., 2013). In basketball, Baker et al. (2013), found that the typical basketball career lasts about 11 years, with the longest career studied being 23 years of playing at an elite level. However, it is not clear the performance changes across players career, and their trend (i.e., positive or negative) calling for further studies in this area. Therefore, the aim of this study was to descriptively analyze TPI changes throughout the career of expert basketball players, assessing the possible performance trend.

Understanding these fundamentals will help the team develop tactics in different playing situations and enable them to be most suited for a role or position. Without mastering basic skills in basketball, a player won't be able to execute advanced moves properly.

Basketball in India

In India, the game of basketball started its journey in 1930 when it was played for the first time. The first Indian National Championship for men was conducted in 1934 in New Delhi. The Basketball Federation of India (BFI), which controls the game in India was formed in 1950. Throughout history, Indians learned to appreciate the game because of its fast scoring and intense activity from the beginning until the end.

Basketball in India is played in most of the high schools, colleges and universities. There is considerable patronage for the game among the younger generation. Basketball in India is played by both men and women of all ages and ability. Many government institutions have professional basketball teams, who work for the institution and play for them. For example,

ONGC in Uttarakhand, Indian Overseas Bank in Tamil Nadu, Indian Bank in Karnataka, Mahanagar Telephone Nigam Limited in New Delhi, Indian Railways, and Kerala Electricity Board play for their respective institution and state. There are many championships for senior, junior, and youth levels for boys and girls. Invitational all-India tournaments like Master Prithvinath Memorial (New Delhi), Don Bosco Invitational Tournament (Mumbai), Ramu Memorial (Mumbai), and many other tournaments in the southern part of India are being organized every year.

Unlike many other countries like America, Russia, China, and Japan, basketball in India does not follow seasons. Indian basketball has championships throughout the year for different age groups. Championship for youth are mainly organized between April to July when children are having summer break from school.

Proprioceptive neuromuscular facilitation(PNF) exercises is a form of stretching designed to increase flexibility of muscles and increase range of movement. PNF is a progressive stretch involving muscle contraction and relaxation.

PNF is an effective technique to improve muscle length and prevent increased tension. The progressive stretching and change between contraction and relaxation allows the muscle to adapt to its new position each time it is held in position. This allows it to stretch further the next time. If this is done on a regular basis, gains can be made in flexibility and range of movement. PNF can be of benefit to individuals recovering from muscle damage as part of treatment but It can also help healthy individuals to increase flexibility and range of movement. This can be beneficial for sporting activities to improve the body's ability to perform. Coaches need effective method of Training for the skill as well as tactical knowledge. So, proprioceptive neuromuscular training may provide the alternative approaches of Training for the players which can help them to improve the coaching and teaching skills.

43. The Efficacy of Enhanced Recovery Program Versus Progressive Resistive Exercise in Knee Pain, Performance and Satisfaction of Nonprofessional Player Rehabilitation

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Abstract

This study aims to compare the efficacy of Enhanced Recovery Program versus Progressive Resistive exercise in Knee pain of nonprofessional player Rehabilitation. Total number of 50 subjects as 15 female and 35 males chosen by simple random sampling from Occupational therapy school and center, government medical college, Nagpur, participated in this study. Informed consent form and numeric pain rating scale and Canadian occupation performance measure (COPM) were used as data collection tool. To disclose differences in statistical evaluation of the data ANOVA Test were used. Continuous variables (NPRS score, COPM score including performance and satisfaction) were compared at different follow-up period in each group by performing one-way repeated measure ANOVA. $P < 0.05$ was considered as statistical significance. The conclusions of the current study states that there was significant improvement in all the aspects and reduction of pain with the use of enhanced recovery programs and Progressive Resistive exercise.

Keywords- knee Pain, Enhanced Recovery Program, and Progressive Resistive Exercise, NPRS, COPM.

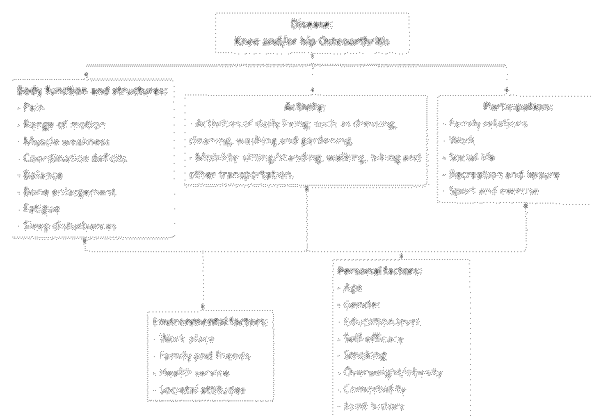
Introduction

Knee pain is a common complaint that affects people of all ages including athletes. Knee pain may be the result of an injury, such as a ruptured ligament or torn cartilage. Medical conditions — including arthritis, gout and infections — also can cause knee pain.

Many types of minor knee pain respond well to self-care measures. Physical therapy, Occupational therapy and knee braces also can help relieve pain. In some cases, however, your knee may require surgical repair.

The major weight bearing point of human body is knee. Knee is the foremost joint which plays a vital role in all body movements and supports body weight. Therefore, strong and healthy knees are requisite for an active lifestyle. However, some health conditions like arthritis and osteoarthritis, injuries and worn out cartilage can cause inflammation, pain and restrict knee flexibility; which subsequently leads to knee pain.

According to the International Classification of Functioning, Disability and Health (ICF) is a framework for describing functioning and disability in relation to a health condition. The ICF is a framework to approach patient care that shifts the conceptual emphasis away from negative connotations such as disability and places focus on the positive abilities of the individual at the patient level rather than the systems level. According to the framework and classification, we can define the typical spectrum of problems in functioning of patients with OA.



Material and Methods

Research design

This study was an experimental, interventionnal, comparative study. Method of randomization was done by Block Randomization using Simple Random Sampling. Study protocol, informed consent documents, case Record form were reviewed and approved by Institutional Ethics Committee. The study was initiated after receiving an approval from Institutional Ethics Committee as well as Occupational therapy school and center, GMC Nagpur.

Participants

With the help of difference in the mean formula at 90% power and 5% α - error minimum sample size was found to be 25 per group. There was total 50 subjects participating in the study as 15 female and 35 males, 25 in group A (Enhanced Recovery Program and 25 in group B (Progressive Resistive exercise).

Data Collection

Patient will be selected according to the inclusion criteria. Demographic data will be collected in record form. They will be enrolled for participation; screening will be done and Block Randomization using Simple Random Sampling.

Subjects with knee pain and nonprofessional player were selected for the study based on the inclusion criteria.

The subjects were invited for participation and their consent were received after explaining them about the purpose of the study, procedure of the study, risk factors, benefits, right to withdraw and assurance that the confidentiality would be maintained.

All the subjects were screened for inclusion and exclusion criteria. There were 10 patients' dropout because 3 due to health issues and 2 don't want to participate. Total 55 patients were taken for study. Exercise was taught to both the groups and then assessment of every individual was done on the Numeric Pain Rating Scale, Canadian Occupation Performance Measure.

Patient record form as made and demographic data was collected, and were randomly assigned to 2 groups of enhanced recovery program (group A) and Progressive resistive exercise (group B). Then they were assessed, on 4th and 8th weeks again. After the initial evaluation 5 patients left because they were not interested for the study. The data then collected and analyzed.

Personal Information Form

Participants were asked to respond the questions such as gender, age, home exercise status, exercise frequency, exercise duration, history of play including how often they play and which game they play and for how much duration.

Numeric Pain Rating Scale (NPRS)

The Numeric Pain Rating Scale (NPRS) (an outcome measure) that is a unidimensional measure of pain intensity in adults, including those with chronic pain due to rheumatic diseases. The NPRS is a segmented numeric version of the visual analog scale (VAS) in which a respondent selects a whole number (0–10 integers) that best reflects the intensity of his/her pain.

- The common format is a horizontal bar or line.

Similar to the VAS, the NPRS is anchored by terms describing pain severity extremes.

Reliability-

High test–retest reliability has been observed in both literate and illiterate patients with rheumatoid arthritis ($r = 0.96$ and 0.95 , respectively) before and after medical consultation.

Validity-

For construct validity, the NPRS was shown to be highly correlated with the VAS in patients with rheumatic and other chronic pain conditions (pain > 6 months): correlations range from 0.86 to 0.95.

Canadian Occupation Performance Measure

The COPM was created in Canada in 1991 by Law M, Baptiste S, Carswell A, McColl MA, Polatajko HJ, Pollock N as an outcome measure of occupational performance in everyday living over time, as part of a project commissioned by the National Health Research Development Program and the Canadian Occupational Therapy Foundation. It is based on a self-evaluation of performance and satisfaction by the client, undertaken with support from a therapist.

This tool enables the client to identify what is meaningful to them to work on. It encourages self-awareness, focused goal-setting and self-reflection. It focuses on the person's perception of their performance and how satisfied they are rather than measuring improvement in function. It can support building therapeutic relationships, organizing a client's priorities and motivating them to work towards their own goals.

Statistical Analyses

After completion of all (pre-intervention and post-intervention treatment) evaluation, data were collected and data were put and analysed by using SPSS version 23.0. The raw score of pre-treatment and post-treatment data of outcome measures Numeric Pain Rating Scale (NPRS) and Canadian Occupation Performance Measure (COPM) were analysed. This data is an ordinal level of measurement. Data pass the normality test so parametric test ANNOVA was used for comparison of the changes in NPRS and COPM within both groups and between the groups.

Results

- Patients were evaluated initially prior to intervention, post-intervention 4 weeks, and lastly after 8 weeks' post-intervention duration.

- Collected data were entered into Microsoft Excel spreadsheet. Continuous variables were presented as mean \pm SD. categorical variables were expressed in frequency and percentages.
- Continuous variables (NPRS score, COPM score including performance and satisfaction) were compared at different follow-up period in each group by performing one-way repeated measure ANOVA.
- Post-intervention comparison were performed by ANOVA. Change in these study parameters at post-intervention 4th weeks and 8th weeks from baseline between 2 groups were compared by ANOVA Test.
- $P < 0.05$ was considered as statistical significance.
- Statistical Graph Pad Prism Software was used for data analysis.

Table 1: Demographic Characteristics of Subjects

Sr.No.	Baseline Characteristics	Group A,(ERP)	Group B (PRE)
1	No. of subjects	25	25
2	Age range (years)	20-40	20-40
3	Mean age	60.56	60.72
4	Gender M/F	17/8	18/7
5	Diagnosis	Knee Pain	Knee Pain

Table no 1 shows the demographic characteristics, the number of subjects in group A and group B is 25. **mean age of all the participants of group A is 60.56 and group B is 60.72** years. The male to female subject ratio is 18 male and 7 female in group A and in group B there is 17 male and 8 females.

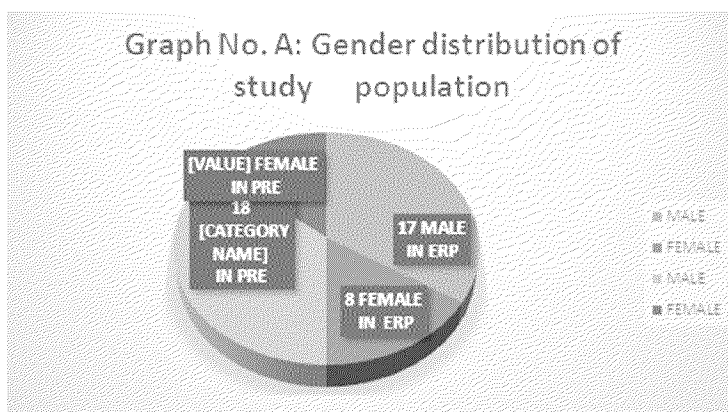
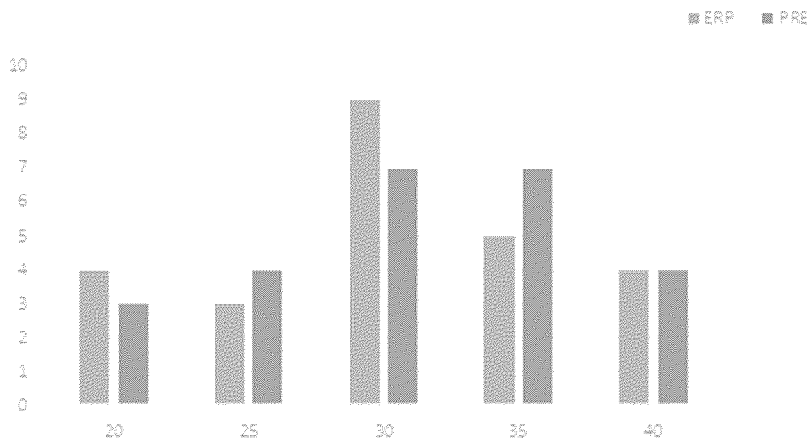
**GRAPH A- GENDER DISTRIBUTION OF STUDY POPULATION**

Table no 1 graph no A, shows that, total 50 patients were recruited in the study. The group A, had 18 males and 7 females whereas 17 patients were males and 8 were females in group B.



GRAPH B- AGE DISTRIBUTION OF BOTH GROUP

Table 2 and Graph B show the age distribution in both groups. The total no of sample is 50, that is between 20-25 yrs. no of sample is 14, between 25-30yrs is 16 between 30-35yrs is 12, between 35-40- is 8.

Outcome Measure	Group A ENHANCED RECOVERY PROGRAM						Group B PROGRESSIVE RESISTIVE EXERCISE					
	Mean score			SD			Mean score			SD		
	Pre-intervention	Post intervention 4 week	Post intervention 8 week	Pre-eval	Post intervention 4 week	Post intervention 8 week	Pre-eval	Post intervention 4 week	Post intervention 8 week	Pre-eval	Post intervention 4 week	Post intervention 8 week
NPRS	9.52	5	1.3	0.5	0.95	0.81	9.36	5	1.12	0.48	1.08	0.78
COPM PERFORMANCE	1.85	5.24	8.1	0.65	0.93	1.06	2.51	5.59	8.19	0.92	1.35	1.25
COPM SATISFACTION	1.07	3.39	6.16	0.30	0.92	1.18	1.53	3.68	6.20	0.65	1.43	1.51

Descriptive Statistics of Outcome Measures

Table No.3

This table shows the pre intervention, post intervention 4th week and post intervention 8th week mean score and S.D. of NPRS and COPM (Performance and Satisfaction).

Table No.4: As per the ANOVA test the significance values recorded Group A Enhance Recovery Program on Numeric Pain Rating Scale (NPRS).

Multiple comparison test	Mean	SD	Significant P < 0.001
PRE INTERVENTION NPRS	9.52	0.5	<0.001
POST INTERV 4th WEEK NPRS	5	0.95	<0.001
POST INTERV 8th WEEK NPRS	1.3	0.81	<0.001

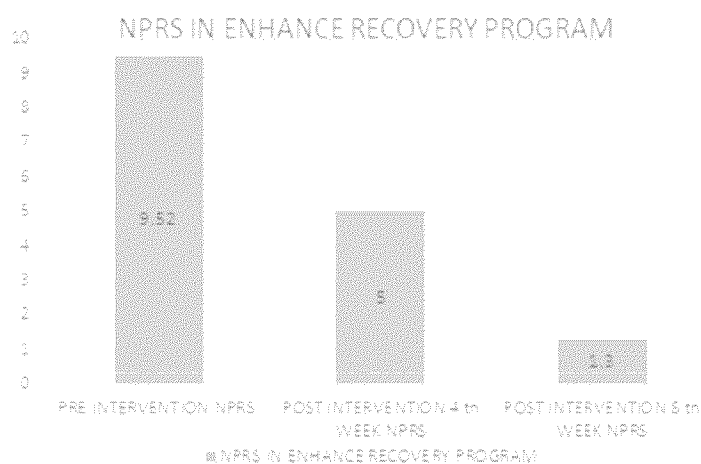
**GRAPH-C**

Table no 4 and graph C: The significant difference was found in values of Group A for PAIN from pre intervention to post- intervention 4th week mean difference value is 4.52 and from pre- intervention to post intervention 8th week the mean difference was 8.16 and from 4th week post intervention to 8th week post intervention mean difference was 3.46.

Table no.5: As per the ANOVA test the significance values recorded in Group B Progressive Resistive Exercise on Numeric Pain Rating Scale (NPRS).

Multiple comparison test	MEAN	SD	Significant P < 0.001
PRE intervention NPRS	9.36	0.48	<0.001
POST-intervention 4 th WEEK NPRS	5	1.08	<0.001
POST-intervention 8 th WEEK NPRS	1.12	0.78	<0.001

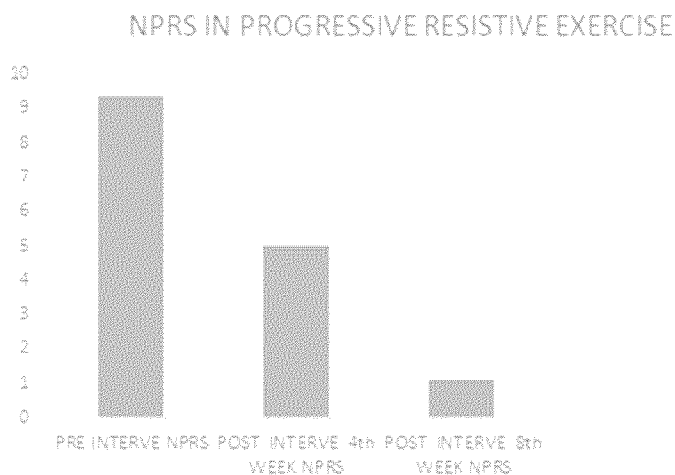
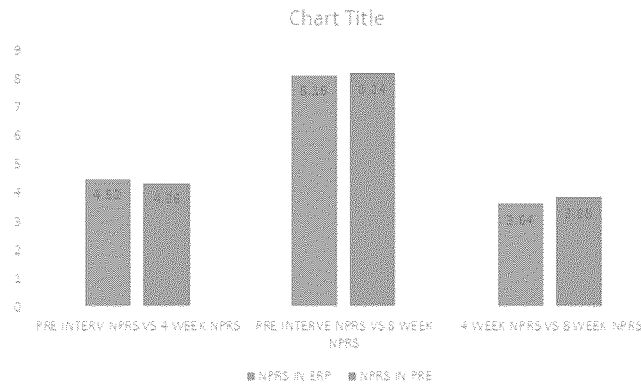
**GRAPH-D**

Table no 5 and graph D: The significant difference was found in values OF Group B for PAIN, from pre- intervention to post- intervention 4th week mean difference value is 4.36 and from pre- intervention to post- intervention 8th week the mean difference was 8.24 and from 4th week post- intervention to 8th week post- intervention, mean difference was 3.88.

Table no 6: Comparison of Numeric Pain Rating Scale (NPRS) at different time point in Two Group.

Groups	ERP Mean diff ± Std. Dev.	PRE Mean diff ± Std. Dev.	P-value	Are means significantly Difference? (P < 0.05)
Pre-INTERVENTION vs 4 th Week	4.52 ± 8.16	4.36 ± 0.81	>0.05	NO
Pre-INTERVENTION vs 8 th Week	8.16 ± 0.68	8.24 ± 0.77	>0.05	NO
4 th Week vs 8 th Week	3.64 ± 0.99	3.88 ± 1.2	>0.05	NO

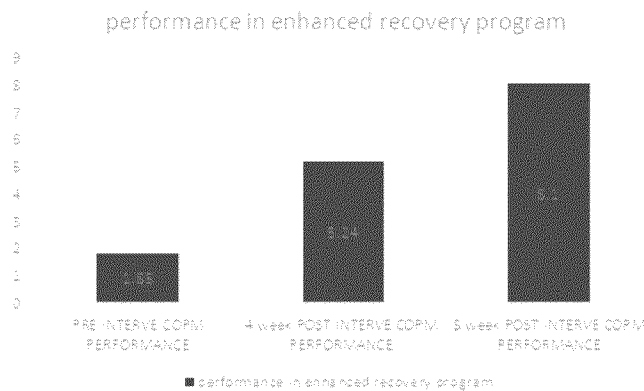


GRAPH-E

Table No. 6 and Graph E: represent variation of PAIN at different follow up period in 2 groups. Mean of PAIN at pre-intervention, post-intervention 4th weeks & post -intervent 8th weeks for “Group A” are **4.52, 8.16** and **3.16** and for “Group B” are **4.36, 8.24,** and **3.88** respectively.

Table No.7: As per the ANOVA test the significance values recorded Group A, Enhanced Recovery Program on Canadian Occupation Performance Measure (COPM), for performance.

PERFORMANCE IN ENHANCED RECOVERY PROGRAM		
GROUPS	MEAN	STANDARD DEVIATION
PRE INTERVENTION COPM PERFORMANCE	1.85	+0.65
4 week POST-INTERVENTION COPM PERFORMANCE	5.24	0.93
8 week POST-INTERVENTION COPM PERFORMANCE	8.1	1.06



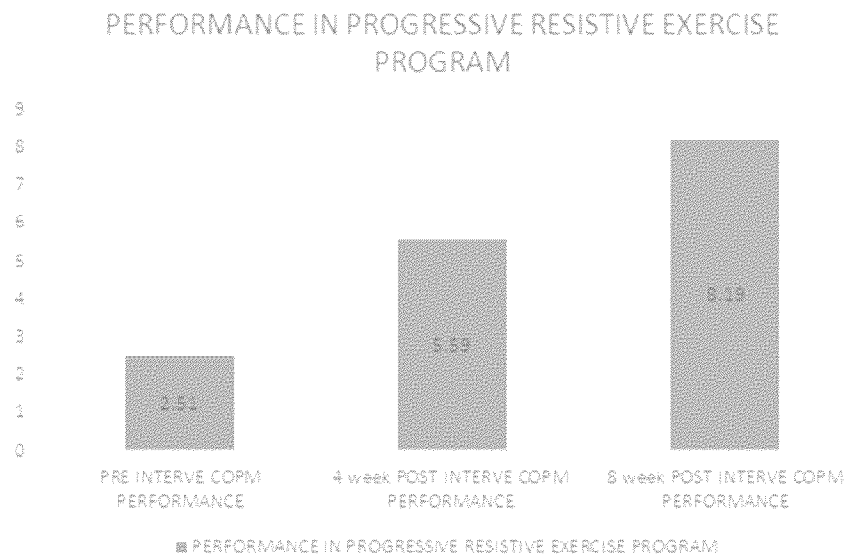
GRAPH-F

Table No 7 and graph F: The significant difference was found in values of Group A for PERFORMANCE in COPM.

At the level of pre-intervention stage mean difference value of performance is 1.85 and at the time of post-intervention 4th week the mean difference was 5.24 and after follow up at 8th week post-intervention mean difference of performance was 8.1.

Table No.8: As per the ANOVA test the significance values recorded GROUP B, Progressive Resistive Exercise on **Canadian Occupation Performance Measure (COPM), for performance.**

PERFORMANCE IN PROGRESSIVE RESISTIVE EXERCISE PROGRAM		
GROUPS	MEAN	SD
PRE-INTERVENTION COPM PERFORMANCE	2.51	0.92
4 week POST-INTERVENTION COPM PERFORMANCE	5.59	1.35
8 week POST-INTERVENTION COPM PERFORMANCE	8.19	1.25



GRAPH-G

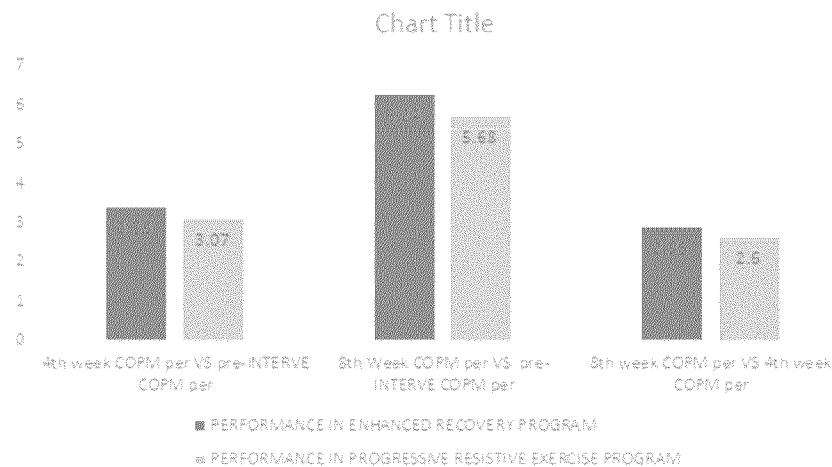
Table no 8 and graph G: The significant difference was found in values of Group B for PERFORMANCE in COPM.

At the level of pre-intervention stage mean difference value of performance is 2.51 and t value was 7.05 at the time of post-intervention 4th week the mean difference was 5.59 and t

value was -5.8 and after follow up at 8th week post-intervention mean difference of performance was 8.19 and t value was 0.7.

Table No.9 Comparison of performance in Canadian Occupation Performance Measure (COPM), at different time point in 2 Groups.

Groups	ERP Mean diff	PRE Mean diff	P-value	Are means significantly different?(P < 0.05)
4 th week COPM per VS pre-INTERVENTION COPM per	3.38	3.07	> 0.05	NO
8 th Week COPM per VS pre-INTERVENTION COPM per	6.24	5.68	> 0.05	NO
8 th week COPM per VS 4 th week COPM per	2.86	2.60	> 0.05	NO

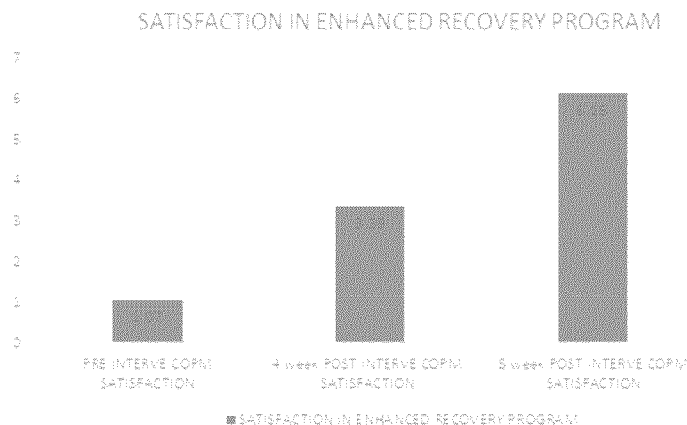


GRAPH-H

Table No. 9 and Graph H: represent variation of PERFORMANCE at different follow up period in 2 groups. Mean difference of performance at 4th week post-intervention VS pre-intervention, 8th Week post-intervention VS pre-intervention and 8th week post intervention VS 4th week post-intervention for “Group A” are 3.38, 6.24 and 2.86 and for “Group B” are 3.07, 5.68, and 2.60 respectively. The results were found to be non-significant at the end of treatment for both the groups.

Table No.10: As per the ANOVA test the significance values recorded Group A,, Enhanced Recovery Program on Canadian Occupation Performance Measure (COPM), for satisfaction.

SATISFACTION IN ENHANCED RECOVERY PROGRAM		
GROUPS	MEAN	STANDARD DEVIATION
PRE-INTERVENTION COPM SATISFACTION	1.07	+0.30
4 week POST-INTERVENTION COPM SATISFACTION	3.39	0.92
8 week POST-INTERVENTION COPM SATISFACTION	6.16	1.18



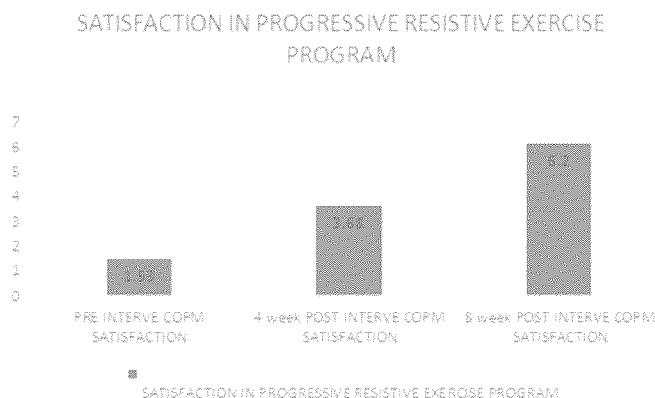
GRAPH-I

TABLE NO 10 and graph I: The significant difference was found in values of Group A for SATISFACTION in COPM.

At the level of pre-intervention stage mean difference value of satisfaction is 1.07, at the time of post-intervention 4th week the mean difference was 3.39 and after follow up at 8th week post-intervention mean difference of satisfaction was 6.16.

Table No.11: As per the ANOVA test the significance values recorded GROUP B, Progressive Resistive Exercise on **Canadian Occupation Performance Measure (COPM), for satisfaction.**

SATISFACTION IN PROGRESSIVE RESISTIVE EXERCISE PROGRAM		
GROUPS	MEAN DIFF.	SD
PRE-INTERVENTION COPM SATISFACTION	1.53	0.65
4 week POST-INTERVENTION COPM SATISFACTION	3.68	1.43
8 week POST-INTERVENTION COPM SATISFACTION	6.20	1.51



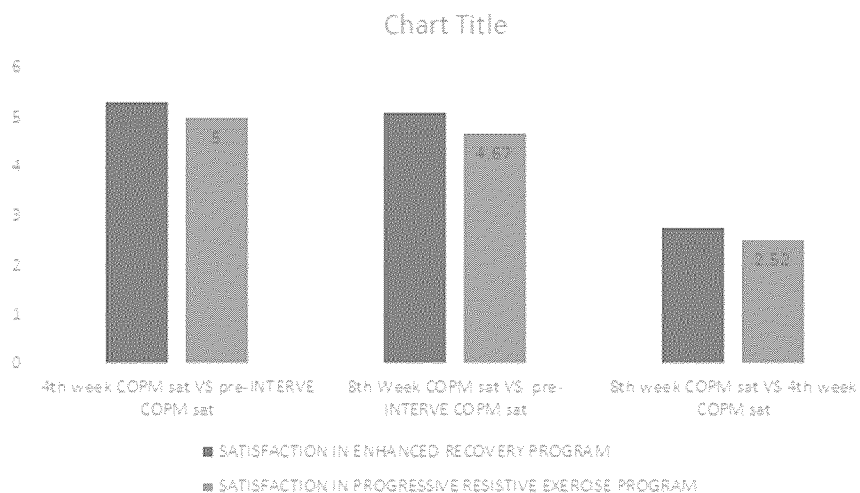
GRAPH-J

Table no 11 and graph J: The significant difference was found in values of Group B for SATISFACTION in COPM.

Initially in pre-intervention stage mean difference value of satisfaction in COPM was 1.53. When follow up at post-intervention 4th week the mean difference was 3.68 and when again reassessed at post-intervention 8th week the mean difference of satisfaction in COPM was increased to 6.20 as compare to pre-intervention stage.

Table No.12, Comparison of Canadian Occupation Performance Measure (COPM), for SATISFACTION at different time point in 2 Groups

Groups	ERP Mean diff	PRE Mean diff	P-value	Are means significantly different?(P < 0.05)
4 th week COPM sat VS pre-INTERVENTION COPM sat	5.32	5.00	> 0.05	NO
8 th Week COPM sat VS pre-INTERVENTION COPM sat	5.09	4.67	> 0.05	NO
8 th week COPM sat VS 4 th week COPM sat	2.76	2.52	> 0.05	NO



GRAPH-K

Table No.12 and Graph K: represent variation of SATISFACTION at different follow up period in 2 groups. Mean difference of satisfaction at 4th week post intervention VS pre-intervention, 8th Week post-intervention VS pre-intervention and 8th week post-intervention VS 4th week post-intervention for “Group A” are 2.32, 5.09 and 2.76 and for “Group B” are 5, 4.67, and 2.52 respectively. The results were found to be non-significant at the end of treatment for both the groups.

Discussion

The purpose of this study was to investigate and compare the efficacy of Enhanced Recovery Program versus Progressive Resistive exercise in Knee pain of nonprofessional player Rehabilitation.

A sample of 50 patients who were suffering from knee pain were recruited for the study; they were divided into two groups by Block Randomization using Simple Random Sampling. All the patients were evaluate prior to intervention. Group A consisted of 25 patients who were given intervention protocol of enhanced recovery program. Group B consisted of 25 patients who were given intervention protocol of progressive resistive exercise.

Evaluations of numeric pain rating scale, and Canadian occupation performance measure scale were carried out for both groups at pre-intervention level, 4th week post-intervention and 8th weeks post-intervention.

The gender wise distribution of male and female in both the groups showed that in “Group A” there were 18 males and 7 females. In “Group B” there were 17 males and 8 females (Table 1, Graph A).

Differences in the musculoskeletal system and biomechanics

While women’s bodies have the same joints as men’s, certain musculoskeletal differences exist. These differences alter the way women tend to stand, walk, and run, and how their joint surfaces move in relation to one another (joint articulation). (45)

As per research regular exercise can ease pain in the long term by improving range of motion, muscle tone, strength, and flexibility. Exercise may also cause a release of endorphins, the body's natural painkillers. In both the groups’ ROM exercise were started on post-intervention day one.

It has been found that if there is a loss of knee flexion then that will cause altered gait pattern affecting the ankle and hip, limited functional squatting, and difficulty negotiating stairs and sitting. The loss of knee extension can cause altered gait pattern affecting the ankle and hip, inability to attain the closed packed position of the knee. Due to these complications regaining full functional ROM through treatment is crucial.

The table no 4, represents Post-intervention analysis of pain of group A. There was significant difference in pre to post-intervention 4th week and in 4th to 8 weeks, there was significant difference found in pre-intervention to 8th weeks in PAIN of group A. The treatment strategy used in group A (Enhanced Recovery Program) as per the protocol was taught. As we do exercise there is increase in blood flow that helps to rise muscle temperature due to which the muscles are relaxed, relieving tightness and tension. Relieving muscle tightness and tension allows a muscle to stretch to its full length with no restriction, therefore there is increase in range of movement.

As the exercise should be done 4-5 times in a day, ERP effectively relieve pain and improve joint function, this led to increase in ranges.

The table no 5, represents Post-intervention analysis of pain of group B. There was also a significant difference in pre to post-intervention phase, there was significant difference between pre-intervention to post-intervention 4th week also pre intervention to post-intervention 8th week and for 4th to 8thweeks there was also a significant difference, there was highly significant difference found in pre intervention to 8 weeks in PAIN of Group B. The treatment strategy

used in group B was Progressive resistive exercise program. As shown in table no 4 there is significant reduction in pain of knee joint. This is in accordance with the previous study done by Kevin R. Vincent MD, Heather K. Vincent. Resistance Exercise for Knee Osteoarthritis

They concluded that Resistance exercise (RX) has been shown to be an effective intervention both for decreasing pain and improving physical function and self-efficacy. RX may restore muscle strength and joint mechanics while improving physical function. RX also may normalize muscle firing patterns and joint biomechanics, leading to reductions in joint pain and cartilage degradation. These physical adaptations could lead to improved self-efficacy and decreased anxiety and depression. RX can be prescribed and performed by patients across the spectrum of OA severity. When designing and implementing an RX program for a patient with knee OA, one should consider both the degree of OA severity and the level of pain.

The table no. 6 indicates inter-group comparison of the results for PAIN. It shows that there was no difference between the two groups for the PAIN in knee joint at pre-intervention to 4 week, pre-intervention to 8week and post-intervention 4 week to post-intervention 8 week. In which group A and group B shows equal results.

The table no.7, represents post-intervention analysis of performance of group A represents that there was significant difference in pre- to post-intervention performance measure on Canadian occupation performance measure. There was increase performance post intervention 4th week and again it was better in post-intervention 8th week but there was highly significant difference found in post-intervention 8th weeks in performance of Group A. The treatment strategy used in group A (enhanced recovery program) as per the protocol was taught. The ERP program benefits the patient by reducing muscle wasting and improving mobility and also help in reducing the risk of blood clots by getting up and moving sooner. This led to increase of muscle strength and improve performance.

The table no. 8, represents post-intervention analysis of performance of group B represents that there was significant difference in pre- to post-intervention performance measure on Canadian occupation performance measure. There was increase performance post-intervention 4th week and again it was better in post intervention 8th week but there was highly significant difference found in post-intervention 8th weeks as compare to pre-intervention in performance of Group B. This may be attributed to the nature of Progressive Resistive exercises

which are performed in a controlled and slow manner leading to slower increments in muscle power.

The table no. 9, and graph H, indicate inter-group comparison of the results for performance components. Between the group during the pre-intervention and post-intervention phase there was no difference in performance component. There was increase performance post-intervention 4th week and again it was better in post-intervention 8th week but there was highly significant difference found in post-intervention 8th weeks.

There is significant difference found in the performance after intervention in both groups (A and B) given from post-intervention 4th weeks to 8th weeks.

We can say that both the protocols are beneficial for improvement in performance.

The table no. 10 represents post-intervention analysis of satisfaction score of group A represents that there was significant difference in pre- to post-intervention satisfaction measure on Canadian occupation performance measure scale. There was increase satisfaction post-intervention 4th week and again it was better in post intervention 8th week but there was highly significant difference found in post-intervention 8th weeks.

In satisfaction of Group A. The treatment strategy used in group A was enhanced recovery program. Using ERP exercise, it helps in building strength of legs and back, and build a stronger base to control the body and improve awareness of physical capabilities and balance.

The table no.11, represents post-intervention analysis of satisfaction of group B represents that there was significant difference in pre- to post-intervention satisfaction measure on Canadian occupation performance measure scale. There was increase performance post-intervention 4th week and again it was better in post intervention 8th week but there was highly significant difference found in post-intervention 8th weeks as compare to pre-intervention in performance of Group B. This may be attributed to the nature of Progressive Resistive exercises which are performed in a controlled and slow manner leading to slower increments in muscle power.

Physical and mental health benefits that can be achieved through resistance training include: Improved muscle strength and tone – to protect your joints from injury, Maintaining flexibility and balance, which can help you remain independent as you age, Weight management and increased muscle-to-fat ratio – as you gain muscle, your body burns more kilojoules when at rest, May help reduce or prevent cognitive decline in older people, Greater stamina – as you

grow stronger, you won't get tired as easily, Prevention or control of chronic conditions such as diabetes, heart disease, arthritis, back pain, depression and obesity, Pain management, Improved mobility and balance, Improved posture, Decreased risk of injury, Increased bone density and strength and reduced risk of osteoporosis, Improved sense of wellbeing – resistance training may boost your self-confidence, and improve your body image and your mood.

The table no.12, and graph K, indicate inter-group comparison of the results for satisfaction components. Between the group during the pre-intervention and post-intervention phase there was no difference in satisfaction component. There was increase satisfaction post-intervention 4th week and again it was better in post-intervention 8th week but there was highly significant difference found in post-intervention 8th weeks.

There is significant difference found in the satisfaction after intervention in both groups (A and B) given from post-intervention 4th weeks to 8th weeks. Hence, we can say that both the protocols are beneficial for improvement in performance as well as satisfaction.

The statistical results are showing overall equal benefits of the ERP and PRE groups for reducing pain and improve performance and satisfaction in patients with total knee replacement arthroplasty.

Conclusion

The goal of this study was to help the patient to return to the highest level of function, while improving the overall quality of life physically, emotionally, and socially. The focus of rehabilitation was on relieving pain, restoring normal joint mobility, strengthening of core muscle groups, and improving occupation performance.

The findings of this study also give rise to important clinical implications about treatment of patients with Knee pain, patients with Knee pain may benefit from modern therapeutic approaches such as ERP and PRE. Enhanced Recovery based programs include patient/family education and reduced length of stay due to which patients return to home earlier that help psychologically.

Progressive Resistive based exercise program is top-notch for helping people burn more calories (and thereby losing weight) as well as strengthening muscles, joints, and even bones for better overall health and fitness. Within the 8th week of treatment, in this study results showed highly significant improvement in all outcome measures i.e. Pain and Occupation Performance Measure score for both the groups. The conclusions of the current study states that there was

significant improvement in all the aspects and reduction of pain with the use of enhanced recovery programs and Progressive Resistive exercise. Hence, enhanced recovery program exercise and Progressive Resistive exercise both can be used as therapy protocol for Knee pain in Occupational Therapy management.

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44. A Study of an Emotional Intelligence among Adult Sportsperson and Non-Sportsperson

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Abstract

This study discusses Emotional intelligence in sportsperson and non-sportsperson. Emotional intelligence is the quality that enables us to confront with patience, insight and imagination, many problems that we face in our effective relationship with ourselves and other people. EI has become an integral part of an individual's life, from simplest to the most difficult task or situation emotional intelligence plays a significant role. A sample size of 100 adults was chosen of age 35-45 years participated in the study from the Nagpur region. The scores regarding Emotional intelligence were assessed by administering a 5-point scale developed by Hyde et al (2002) was used. Mean, SD and t- test were carried out to make comparison between the sample groups. The data was analyzed by 't-test'. The obtained 't-value' for Emotional intelligence (2.75**) was found at 0.01 level, indicating that significant difference in Emotional Intelligence of Sportspersons and Non-Sportspersons.

Keywords: Sports involvement, physical activity, emotional intelligence, Sportspersons and Non-Sportspersons.

Introduction

Physical activity is an essential element of health. A wealth of evidence has concluded that it has beneficial effects on the physical and mental health of children and adolescents and reduces the probability of chronic non communicable diseases. Physical activity positively influences self-esteem, as well as reduces anxiety and depression. Children and adolescents should aim for at least 60 to 90 minutes of moderate or vigorous physical activity every day (Department of Health and Human Services, 2008).

The World Health Organization has declared that one of the ten main causes of mortality and morbidity in the world is physical inactivity. Approximately 2 million deaths per year are attributed to a lack of physical activity. Sedentariness increases the risk of cardiovascular disease, diabetes, obesity, colon cancer, and breast cancer, which makes it one of the most

serious and, at the same time, poorly addressed public health problems of the modern era (World Health Organization, 2010).

Physical activity has numerous benefits that include greater emotional health, improved cognitive functioning, and a better quality of life. Previous studies have reported that since physical activity diminishes stress and anxiety, and enhances self-esteem, emotional self-control, and the development of interpersonal skills, it improves psychological well-being. In other words, psychological well-being is closely related to stability and emotional intelligence. Decreased stress and anxiety, and the enhancement of interpersonal skills such as self-concept and emotional self-control allow individuals to solve problems and adapt to the environment. People who can recognize not only their own emotions but also those ones of others effectively (empathy) can establish higher quality interpersonal relationships that favor the school environment and coexistence with others. Previous research has supported a negative correlation between practicing physical activity and mental health in adolescents.

Physical activity also has been shown to be associated with determinants of mental health, such as better stress management and a lower risk of depression (Harris, Cronkite, & Moos, 2006; Ruggeberg, Wrosch, & Miller, 2012). Despite these benefits, the World Health Organization (WHO) indicates that physical inactivity is the fourth leading cause for global mortality, contributing to more than 6% of deaths worldwide (WHO, 2009; Dishman et al., 2013).

In addition, the WHO also suggests that, with the rising rates of physical inactivity among populations globally, increased risks for chronic diseases likely will follow (WHO, 2010).

The significance of regular physical activity has been well documented (Lee et al., 2012). There is an extensive evidence of relationship of physical activity with psychological parameters such as mental toughness (Eskandarnejad, 2015, Stamp, 2015); mental health scales such anxiety, somatic distress, social dysfunction (Soltanian, 2011), health related quality of life (Wu, 2018) depressive symptoms (Cooney et al., 2014) and mortality rate (Kodama et al., 2013).

The performance of a player not only depends upon his physical abilities or efficiency of the skill rather it also depends to a great extent on his psychological training. It has been seen in number of cases and presented (reported) in newspapers and other sources of the media. In the

contemporary period of sports competition, the sports psychology has made a remarkable contribution in enhancing the performance of the sports persons.

The significance of psychological factors for improving the performance has been forcefully advocated by many experts (Nisar, 2008; Ali, 1996, Bull, 1995; Singer & Kane, 1975; Brooke & Whiting, 1975; Wein, 1973). They suggested that those individuals are affected not merely by their physical, technical and tactical qualities but also by their psychological make-up. Nohney (1983) reported that within the constructs of his or her ability, an athlete's performance is significantly related to his or her psychological functioning. Sports performance is complex and multidimensional in nature. It is the process of tackling the given sports tasks.

Sports psychologists have emphasized the significance of personality characteristics attitudes, achievement motivation, self-concept, emotional intelligence and lots of other psychological factors that influence performance of athletes (Porat, Lufi & Tenenbaum, 1989; Mann, 1988; Khan, 1986; Mohan, 1982; Singer, 1972; Kane, 1968; and Oglivic, 1968).

Researchers within the field of sport psychology have also evaluated the role of specific psychological skills in enhancing performance (Nisar, 2008; Ali, 1996). Overall, research in sport settings has provided evidence that psychological skills facilitate athletic performance with both team and individual athletes (Thelwell & Greenlees, 2001; Beauchamp et al. 1996; Smith, Schutz, Smoll & Ptacek, 1995; Mullen & Copper, 1994; Greenspan & Feltz, 1989). Psychological skills such as relaxation training, positive thought control, self-regulation, imagery, concentration, energy control, self-monitoring, goal setting, and cohesion have all been found to influence the performance and other outcome variables.

Sports Psychology

American sport psychology pioneers began researching how psychological actors apply to sport and recreational settings in the late 19th century (Fitz, 1897; (34) Triplett, 1898 (35). Notable advancements in North American sport psychology began in the 1920s with research and applied work that was focused on improving the performance of coaches and athletes (Griffith, 1926, (36) 1928 (37). Griffith was attempting to improve player performances by evaluating and providing feedback of skill development, personality styles and leadership to players. The attitudes of coaches and athletes towards this psychological assistance and the implications of using these services were not empirically assessed.

Interest in sport psychology grew from 1950 onward with the publication of numerous research articles and book chapters about sub-topics such as imagery thought to affect sport performance (Ammons, 1951) (38) and stress (Howell, 1953; (39) Ulrich and Burke, 1957 (40). Key publications in sport performance, for example, included Psychology of Coaching (Lawther, 1951), (41) Science and Medicine of Exercise and Sports (Johnson, 1960), (42) Movement Behaviour and Motor Learning (Cratty, 1964) (43), Psychology and Physical Activity (Cratty, 1967) (44), and Motor Learning and Human Performance (Singer, 1968) (45). In these early years of sport psychology, the two sub-disciplines of applied sport psychology and motor learning were closely connected (Silva and Weinberg, 1984) (46). A publication that attracted considerable interest and controversy was Problem Athletes and How to Handle Them (Ogilvie and Tutko, 1966) (47). There were ethical concerns that the book mainly aided the coach to control athletes to achieve performance results rather than facilitate the overall development and best interests of athletes and was perceived by some sport psychologists to undermine effective service delivery (Landers, 1995; (48) Williams, 1998 (49).

There are three primary areas of sport psychology i.e., clinical, educational, and research. A clinical psychologist helps the athletes cope with any personal issues that could affect their athletic performance. For example, some possible personal problems could be depression, anorexia, panic, success, failure, stress, and relationships with teammates or coaches. An educational psychologist helps athletes to develop techniques necessary for coping in their athletic environment. Examples would be relaxation techniques, visualization, concentration, and goal-setting. Research psychologists explore different aspects of sport psychology and pass their findings on for application by clinical and educational sport psychologists.

Emotional Intelligence in Sport

Psychologists have been interested in social intelligence for a long time, dating all the way back to at least the 1920s. This interest is rooted in a powerful intuition that there are many educationally-relevant aspects of human abilities that are not accounted for by traditional conceptions of academic intelligence (Keating, 1978).

Thorndike (1920), the term referred the person's ability to understand and manage other people, and to engage in adaptive social interactions. More recently, however, Cantor & Kihlstrom (1987) redefined social intelligence to refer to the individual's fund of knowledge about the social world.

Many researches are conducted on field hockey in relation to psychology. The most common variables which contemporary used by the researchers are self-concept, hardiness, adjustment, achievement motivation, intelligence and others. These variables play a significant role in determination of the performance in any sports.

Sport performance has taken a great leap over the last 20 years. Technology has enhanced our level of performance greatly through improved equipment and nutritional products. Back in the 1980's it was good enough to be fitter than your opponent, that would secure the win; it was good enough to have more technical skills, it would ensure the upper hand; even having tactical skills would allow for an advantage. Today however, everybody is as fit, as technically and tactically advanced as their opponent. The playing fields have been levelled once again. What possibly could give us the edge that we are desperately looking for to give us the one up on our opponents?

Physical activity is related to physical, mental and social wellness. In the specific case of mental health, previous studies have found that individuals who are engaged in physical activity demonstrate better psychological wellness and suffer less stress and depression. These findings involved teenagers, undergraduate students and the elderly.

Emotions pervade effective performance in sports (Jones, 2012; Laborde et al., 2013) and physical activity level (Mohiyeddini et al., 2009; Wang, 2011). There is an agreement among the researchers that emotions are pretty momentary in nature (Lazarus, 2000; Scherer, 2005), but academics have also indicated the presence of a more steady, predominant level that reveals emotional natures of an individual (Lazarus, 2000; Laborde et al., 2013). The notion of 'Emotional Intelligence' (EI)-propagated by Goleman (1995) has prospered in various research spheres, fundamentally for the reason that of its likelihood to impact human performance, affiliations, and well-being (Stough et al., 2009).

Sport requires close personal interactions among team members, tolerance of stress and frustration, emotional restraint and emotional reactivity at various times occupational - requirements that are reflected in assessments of emotional intelligence. The situational demands of this occupation to reflect a balance of competitive and cooperative skills, physical abilities, and psychological traits, including interpersonal and intrapersonal qualities.

Intelligence constitutes the basic characteristic of human beings. The degree of intelligence is reflected by the clarity of purpose, thought and action in an individual's behavior.

It involves understanding the specific situation in which the individual finds himself, and appropriately responding to it. It includes assimilation of information, processing of information, judicious selection of an alternative out of the multitude of alternatives presented, and rational decision making. Thus, intelligence consists in acting in a given situation with use of past experience, with due regard to what is novel in the situation, and to the whole situation rather than to some striking part of it. It denotes having insight into the key to the whole situation or problem.

Emotions play a central role in sports performance. Sport is an emotional experience for many athletes. An important victory can result in happiness and joy, and a crushing defeat may result in despair and disappointment. An athlete's emotional state may also affect the outcome of a competition by influencing performance both during training and while competing (Butler, 1996).

The term "emotional intelligence" was formally presented in 1990 with the publication of Salovey and Mayer's (1990) article Emotional Intelligence in the Journal *Imagination, Cognition and Personality*, where they defined it as "a subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and actions."

Emotional intelligence is an array of skills and competencies that we develop throughout our lives to help establish and maintain a comfortable and meaningful existence. Without these skills it is very difficult to know what to do for enhancing our performance. Without emotional intelligence we will struggle to make informed decisions, we will not know how to plan the stages of the training. We might not have the self-belief and confidence that we can actually build a decent athlete. We find it difficult to manage good working relationships. When the pressure is on and we will not know how to deal with the stress and anxiety or when something small goes wrong like a failure to achieve the predefined goal, we fall apart.

Emotional intelligence as defined by Daniel Goleman, Goleman explains the chief characteristics of someone with high emotional intelligence, he or she is aware of emotions and able to regulate them and this awareness and regulation are directed both inward, to one's self, and outward, to others. "Personal competence," in Goleman's words, comes from being aware of and regulating one's own emotions. "Social competence" is awareness and regulation of others' emotions.

Athletes must learn to recognize their own ideal performance states, and develop the skills to manage their emotions (Hanin, 1995).

Thus, energy control, like emotional intelligence, involves recognizing and managing emotions to maximize performance (Mayer & Salovey, 1997). One potential link between individualized zone of optimal functioning theory and emotional intelligence is that an athlete with high emotional intelligence may be more skilled at recognizing and utilizing their individualized zone of functioning theory in specific situations than an athlete with low emotional intelligence (Hanin, 1995).

Finally, high levels of performance, particularly in team sports, require members of a group to communicate and work together to achieve common goals. In order to do so, it is important to be aware of the feelings of the other group members and to act accordingly so as not to disrupt the balance (Abraham, 1999; Mullen & Copper, 1994). Given the potential overlap between definitions of emotional intelligence and the aforementioned psychological skills, intuitively one might expect emotional intelligence to be significantly related to sport performance. Research exploring this relationship should include concurrent measures of performance outcomes to add validity to the hypothesis that psychological skills play a role in athletic performance (Rogerson & Hrycaiko, 2002; Smith et al., 1995).

Dimensions of Emotional Intelligence

Goleman (1998) posits that the five dimensions of emotional intelligence are self-awareness, self-regulation, motivation, empathy, and relationship management subsumed in his four major EI scales. (BARZII, SLASKI, 2003).

- **Self-Awareness:** Self-awareness occurs when the individual knows what he is feeling in the moment, and using those preferences to guide decision-making, having a realistic assessment of his own abilities and a well-grounded sense of self-confidence.
- **Self-Regulation:** This involves handling our emotions so that they facilitate rather than interfere with the task at hand; having conscientious and delaying gratification, to pursue goals; recovering well from emotional distress.
- **Motivation:** This dimension of emotional intelligence involves using available deepest preferences to move and guide the individual toward desired goals, to help in taking initiative and striving. To improve, and to persevere in the face of setbacks and frustration.

- **Empathy:** This is related to sensing what other people are feeling, being able to take their perspective, and cultivating rapport and attunement with a broad diversity of people.
- **Relationship Management:** Relationship management manifests in handling emotions in relationships well and accurately reading social situations and networks, interacting smoothly, using these skills to persuade and lead, negotiate and settle disputes, for cooperation and teamwork.

Review of Literature

Review of relevant studies provides scaffolding to the variables that have been incorporated in the study. For any worthwhile study in any field of knowledge, the researcher needs all the support in the form of familiarity with work which has already been done in the area of their choice.

Billings, Clare E.W., Downey, Luke A., Lomas, Justine E., Lloyd, Jenny, Stough, Con; [2014]. Previous research has reported an association between Emotional Intelligence (EI) and scholastic achievement in adolescent samples; however, this relationship has not yet been studied in pre-adolescent samples. The current study was the first to explore the relationship between ability EI and scholastic achievement in pre-adolescent children, using a newly created measure of EI for younger children – the Swinburne University Emotional Intelligence Test – Early Years (SUEIT-EY). Four hundred and seven girls and boys between the ages of 9 and 13 years were assessed on the SUEIT-EY, and scholastic results were collected for literacy and numeracy ability. Results indicated that a significant relationship existed between the ‘Understanding and Analyzing Emotions’ (UAE) branch of the SUEIT-EY and measures of achievement in literacy and achievement in numeracy, for boys and girls, over and above the effect of age. Sequential Multiple Linear Regression Analyses found earlier developing UAE abilities to better predict scholastic achievement variables than the more complex UAE abilities, and accounted for 11% of the variation of both literacy and numeracy scores.

Jafri, Sadaf, Bundelkhand University [2013]: Impact of family climate, mental health, study habits and self-confidence on the academic achievement of senior secondary students. The world is becoming more and more competitive and quality of performance is the key factor for personal progress. Excellence particularly, in academics and generally in all other areas has been seen as an important aspect. Parents desire that their children climb the ladder of performance to

as high level as possible. This desire of a high level of achievement puts a lot of pressure on students, teachers, institutions and the educational system itself in general. In fact, it appears as if the whole system of education revolves around academic achievement of the students, though various other outcomes are also expected from the system. Hence, efforts have always been made to find out strategies and mechanism to improve excellence. Therefore, many factors have been hypothesized and researched by the researchers. They come out with different results, at time, complementing each other but at times contradicting each other. A complete and comprehensive picture of academic achievement still seems to elude the researchers. The search, therefore, continues and educational researchers all over the world are still seeking a breakthrough in elucidating this phenomenon. In the present investigation it is presumed that students' academic achievement is determined by Family climate, Mental health, Study habits and Self-confidence and this is the reason why, the aim of the present investigation was to study the Impact of Family Climate, Mental Health, Study Habits and Self Confidence on the Academic Achievement of Senior Secondary Students.

In the perspective of leisure-time physical activity, motivation is the crucial factor to endure engagement in physical activity (Kodama et al., 2013) and most practices of physical activity encompass certain level of interactive communication (e.g., gym fellows, fitness trainers). In every situation, behavior might be directed partially by emotional intelligence (Mayer & Salovey, 1997; Petrides & Furnham, 2003). There is a mounting figure of evidence to recommend that Emotional Intelligence plays a significant part in sport performance (Laborde et al., 2014) and physical activity (e.g., Solanki & Lane, 2010), and a critical understanding of this constructs' operationalization in these contexts is particularly important to practicing consultants targeting the implementation of evidence-based interventions that enhance sport performance or exercise adherence. The earlier studies have inspected the emotional intelligence dimensions that can explicate several physical, general and mental health components, and numerous classifications of health-related conducts (Fernández- Abascal, 2015). The majority of above discussed researches verified the associations of physical activity only with general Emotional Intelligence. However, taking into account the scarcity of research pertaining to the relationship between physical activity level and trait emotional intelligence, this study is an attempt to fill this gap.

Hosseini et al (2010), who compared the emotional intelligence of professional athletes and non-athletes based on some individual characteristics, concluded that in subscales such as problem solving, happiness, independence, stress tolerance, self-actualization, self-awareness, interpersonal relations, optimism, assertiveness, responsibility, empathy, and self-regard, professional athletes acquired higher scores than non-athletes. And in scales intrapersonal intelligence, interpersonal intelligence, adaptability and general mood professional athletes acquire higher scores, also (0.001). Moreover, in studying the difference of professional athletes with respect to the level of education, the number of years of game and background of presence in national team, results showed that only in subscales flexibility, self-actualization and problem solving, the difference between professional athletes was significant.

Sahukar, Gautam [2009]. Conducted a study on Academic Anxiety of Urban and Rural Adolescent Girls in Relation to their Socio-Economic Status. The present study aimed at finding the academic anxiety of urban and rural adolescent girls in relation to their socio-economic status. The investigator finds that academic anxiety of adolescent girls is affected by their SES. Academic anxiety of rural adolescent girls is affected by their SES but total groups were showing the relationship at very low-level b/w SES and academic anxiety.

Barsade (1998) and kritler (1991) stated that peoples who have physical activity, have higher emotional intelligence than inactive peoples. Also, he results of their research showed that there was a significant difference between emotional intelligence of athletes and non-athletes.

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2006 and they concluded that hokey players have higher emotional intelligence than general people and also, emotional intelligence had a positive relationship with athlete's performance. In this research, emotional intelligence was known an important predictor for players' performance.

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athletes was significant. Perlini and Halverson (2006) compared the emotional intelligence of hokey players and general people in a research at 2006 and they concluded that hokey players have higher emotional intelligence than general people and also, emotional intelligence had a positive relationship with athlete's performance. In this research, emotional intelligence was known an important predictor for players' performance.

Rationale of the Study

- The study is done to compare Emotional intelligence among sportsman at different level of physical activity.
- Emotional intelligence is such factor that is very essential for any human being to survive especially in the various dimensions of life where one needs to believe in himself and have a balance of internal locus of control which motivates them to achieve more and more in life.
- With the reviews in hand and the studies by some of the previous researchers, it is found that physical activity is positively related with emotional intelligence.

Objective

To find out the difference amongst the sportsperson and non-sportspersons on the variable of emotional intelligence.

Hypotheses

- There would be difference among the sportspersons and non-sportsperson in their emotional intelligence.

Methodology

Sampling

A total sample of 100 adults (male and female) participating in are taken into consideration for this study. Out of these 100 students, 50 are those involved in significant sports activity and the rest 50 are non-sportsperson of Nagpur region, where the research was conducted.

Table Showing Age Group Division and the Number of Students

GROUP	AGE-RANGE	NUMBER OF PARTICIPANTS
SPORTSPERSON	35-45	50
NON-SPORTSPERSON	35-45	50

Tools Used for Data Collection

The following standardized tools will be used for collecting the data;

Emotional Intelligence Scale (EIS)

The E.I.S scale was developed by Hyde, pethe and Dhar (2001). It contains 34 items with five response options- strongly agree, agree, uncertain, disagree and strongly disagree. It measures ten factors of emotional intelligence namely, a) Self-awareness, b) Empathy, c) Self-motivation, d) Emotional stability, e) Managing relations, f) Integrity, g) Self-development, h) Value orientation, i) Commitment, j) Altruistic behavior. The reliability of the scale was determined by split-half method and was found to be 0.88. Besides face validity, the scale has high content validity. It is evident from the judges/expert's opinion. High score on the scale can be considered to have high level of emotional intelligence. The instructions of this scale were "Here some statements are given and for every statement you have to express your views by making tick (✓) on any cell of the five alternatives. There is no right or wrong answer. So please give your response on all the items." Scoring of the scale is very simple, scored 5 points for strongly agree, 4 for agree, 3 for uncertain, 2 for disagree and one for strongly disagree.

Procedure of Data Collection

Proper rapport was established with the students by asking them about their profession and other related questions. First the purpose of conducting this study was explained to the students. They were given the instructions thoroughly. Questionnaire method was employed for this study. After everything was made clear to them on the basis of their willingness to be a part of this study, they were provided the Emotional intelligence scale, they were asked to read all the instructions carefully, then they were asked to solve the questionnaire. Students were asked to fill the demographic details. Students were asked to attempt all the items. If students were facing the difficulty their difficulties were solved.

Variables under Study

Sportsperson and Non-sportsperson were treated as independent variable (IV) however, Emotional intelligence were treated as Dependent variable (DV).

Research design: Non-experimental research design has been used in the study.

Statistical treatment of data: the data will be treated by descriptive statistics

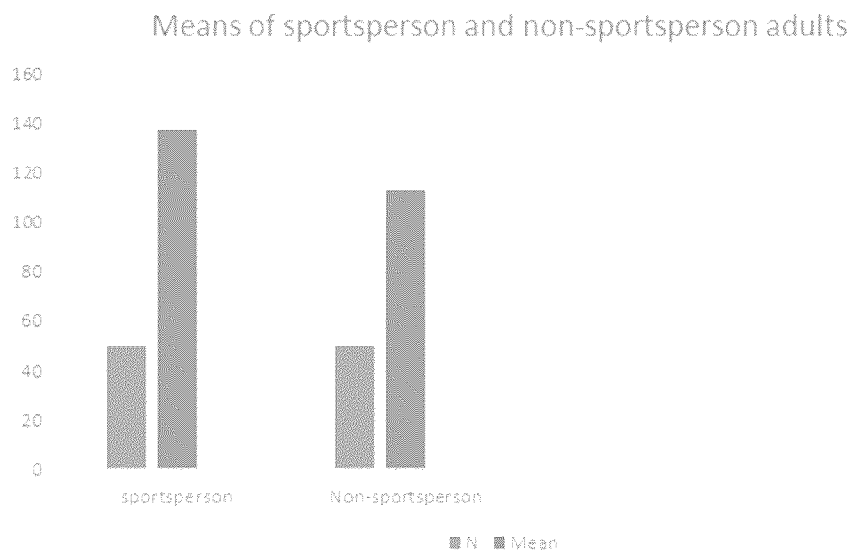
Result

Table 1: -Table showing mean, SD, df, t-value for Emotional intelligence among sportspersons and non-sportspersons.

Hypotheses: - Sportspersons are significantly superior in Emotional Intelligence than non-sportspersons.

Group	N	Mean	SD	Df	t-value
Sportspersons	50	137	1.41	98	2.75** (p>0.05 and0.01)
Non-sportspersons	50	113	1.57		

Table no.1: - shows t value (t-2.75), this indicates that there is significant difference in Emotional Intelligence of Sportsperson and non-sportspersons at 0.01 Level.



Graph No. 01: - Graph showing means of sportsperson and non-sportsperson adults

Discussion

- The objective of this study was to determine difference of emotional intelligence of adults ranging from age 35-45 between person involved in sports and not.
- It was found that involvement in sports was positively associated with overall emotional intelligence including the component: self-awareness, Self-motivation, emotional stability, managing relations, integrity, self-development, value orientation

and commitment. These findings are in agreement with the conclusions of Bhochhibhoya et al. (2014); Zysberg and Hemmel (2017); Li et al. (2009).

- Li et al. (2009) proposed that physical activity best predicted the emotional intelligence once equated to gender, mental health, general mood, and general health. Similarly, the subscales of regulating and utilizing emotion were found significantly different when compared in three physical activity groups (Omar et al. (2012)
- Both of above studies advocated the relationship between level of physical activity and emotional intelligence; furthermore, physical activity was known to be a significant predictor for emotional intelligence establishing agreement with the number of studies (Hellison, 2003; Leith, 2002; Kerr & Kuk, 2001; Baker & Brownell, 2000; Biddle, 2000; ASCM, 1998; Fox, 1990; Sonstroem & Morgan, 1989).
- Another study by Al Sudani & Budzynska (2015) revealed the fact that physical activity was associated with avoidance, task-oriented coping, social diversion along with emotional intelligence.
- The first hypothesis of the study is that "There would be difference among the sportspersons and non-sportsperson on the variable of emotional intelligence'.
- Sportspersons are significantly superior in achievement motivation than non-professional college students, this hypothesis has been accepted (t-2.75 at significant level 0.05 and 0.01).

Conclusion

After analysis of relevant data, following conclusions were drawn:

It can be concluded from the above analyses that involvement in sports has strong linkage with overall emotional intelligence including its various components.

Limitations of the Study

Sample size is too small. A larger sample may have shown significant difference between emotional intelligence of Sportspersons and non-sportsperson Samples were collected from specific region and a selected age group of 35-45years, if sample would have been procured from diverse locality and with a higher age-range, significant difference may have been obtained.

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45. To Examine the Relationship between Mental Toughness and Anxiety among Hockey Players

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Abstract

Performance has so far been influenced by psychological traits like mental toughness and anxiety during competition. The purpose of this study was to examine the relationship between the psychological predictors: of mental toughness and pre-competitive anxiety among hockey players. The participants included the Noce hockey players which includes both male and female players (N=22). The results of Pearson analyses revealed statistically significant relationships between overall mental toughness and somatic & cognitive anxiety. Hockey players demonstrated a high level of motivation followed by Attitude control, Positive energy, Self-confidence, and Visualization & Imagery control whereas there were the lowest signs reflected in Attention Control and Negative energy control. In terms of anxiety, hockey players demonstrated a higher level of Cognitive anxiety as compared to Somatic anxiety. This goes on to prove that mentally tougher athletes who are characterized by high levels of confidence, and motivation and who have good control over attention, negative energy, and visualization, approach difficulties as obstacles that must be overcome.

Keywords: Mental toughness, competitive Anxiety, hockey players.

To examine the relationship between Mental Toughness and Anxiety among elite Hockey Players

Introduction

All athletes are a unique mix of strengths and shortcomings, and so are the demands of each game. Mental toughness and competitive anxiety are two related concepts that are often discussed in the context of sports and other competitive environments. Mental toughness is one

of the essential parts of outcomes in sports. It alludes to the capacity to maintain focus, confidence, and determination even with difficulty. Athletes who have mental toughness can push through tough spots and perform at their best; they also hold a positive attitude while being adaptable to changing circumstances and having the mental and emotional strength to persevere and achieve their goals. As the nature of participating in any sport is dynamic, for an athlete to sustain in the competitive realm the foundation needs to be impeccable.

The legendary cricketer Sachin Tendulkar is one Indian sportsman who personifies mental toughness. Tendulkar faced many difficulties throughout his career, including managing the pressure of representing his nation at a young age and managing the expectations of billions of fans. He did not, however, allow these challenges to stop him. However, he turned to them as inspiration to work harder and improve as an athlete. Tendulkar's mental toughness enabled him to break numerous benchmarks and become one of the greatest cricket players of all time. Another example is Indian badminton player PV Sindhu, who overcame many obstacles to become the best, including going out in major finals, but she never gave up and continued putting in the work. Her mental toughness enabled her to become the first Indian woman to earn an Olympic silver medal and one of the top badminton players in the world.

The given example serves as a reminder of the importance of mental toughness in any sport. Mental toughness is one of the key components for the success of a sports player. It helps athletes to overcome obstacles, maintain focus, and stay motivated. Through techniques and consistent training, it can be developed.

Anxiety

The feeling of anxiety is firmly connected with Han Selye's idea of stress, Selye (1983, p. 2) characterized pressure as the "nonspecific response to the body to any demand made upon it." When stimulated, the body is under pressure whether or not the reason is something negative like displeasure or something positive like satisfaction. Anxiety is a reaction to a stimulus that is intrinsic and/or situational which is considered to be a negative construct of arousal. Precompetitive state anxiety is competitive state anxiety that occurs before a competitive circumstance. When the demands of the sport surpass the athlete's perceived abilities, a competitive anxiety situation arises (Martens, Vealey, Burton, p.194). Researchers have examined that in comparison to athletes with lower levels of competitive anxiety, athletes with higher levels of anxiousness more often and intensely encounter conditions involving irrational

fear or momentary physical and psychological tension (Amanendra et al., 2018). According to Martens (1977). Apprehensive athletes believe they don't have the cognitive abilities to cope with the difficulties the environment brings. They will feel more anxious and stressed out as a consequence of this disparity among both demands and cognitive capabilities.

Therefore, the objective of this research was to Examine the relationship between mental toughness and pre-competitive anxiety among elite hockey players.

Review of Literature

1. Kalim, M. S., & Peter, V. F. (2016) "Mental toughness among the hockey players at the state and national level". The purpose of the study was to find out the difference between the mental toughness of hockey players at the State and National level. 30 male hockey players from the senior national tournament and 30 male hockey players from the state Tournament. The study found that hockey players at state and national levels differ in mental toughness. The national-level of hockey players had better rebound ability, pressure tolerance, concentration, motivation, and confidence.
2. Kazim, N., & Veysel, T. (2019): "Mental Toughness of Students: Levels of Hockey Players' Mental Toughness of the Athletes". The purpose of the study was to determine the mental toughness levels of female student-athletes. 122 participants were given Mental Toughness Inventory at Sports developed by Sheard et al. (2009) & Sports Mental Toughness Questionnaire - SMTQ-14. The athletes participating in the study were found to be strong and durable. It was concluded that there was a meaningful relationship between mental toughness levels and age and also difficulty in leisure time variables.
3. Rasyid, N. M., Lee, J. L. F., Nadzalan, A. M., & Tengah, R. Y. (2019): "Relationship Between Mental Toughness, Sports Competition Anxiety and Performance among Women's Hockey Team". The present study aimed to investigate the relationship between mental toughness and competitive anxiety among athlete students. Participants were 140 athletes from secondary sports schools, and handball players, aged between 13 to 19 years. The correlation between Sports Mental Toughness scales and Sport Anxiety scales was positive, with $\beta = -.843$ explaining 71% of the latent endogenous variance.

4. Rasyid Nelfianty Mohd et.al (2019): Relationship between Mental Toughness, Sports Competition Anxiety, and Performance among Women's Hockey Teams. The objective of this study was to examine the relationship between mental toughness, sports competition anxiety, and performance among women's hockey teams. The study showed that the players had a low level of mental toughness, moderate to high level of anxiety, and basic skills in hockey

Hypothesis

- Alternate Hypothesis (H1): there exists a significant relationship between Mental Toughness and State Sport Anxiety in NCOE Hockey players.
- Null Hypothesis (H0): there exists no significant relationship between Mental Toughness and State Sport Anxiety in NCOE Hockey players.

Methodology

Sample

The study aims to Examine the relationship between Mental toughness and Competitive state anxiety of hockey players. The sample was taken from 22 athletes (Hockey) belonging to the National Centre of Excellence (NCOE).

Data Collection

The data was collected at the sports psychology department IG stadium (NCSSR Delhi), and the athletes performed the test on the specific questionnaire provided to them. The environment was provided in a manner that the athletes were in a comfortable position for an effective result.

Measures

Participants in the study were given a series of self-report questions. The following is a list of the questionnaires that were distributed.

1. Competitive State Anxiety Inventory-2R: Martens et al. (1990) develop the CSAI-2 to be a sport-specific measure of the competitive state anxiety subcomponents of somatic anxiety, cognitive anxiety and a related component Self-confidence. Thus CSAI-2 measures the separate components of state somatic anxiety and cognitive anxiety and self-confidence (Gant and Cox, 2004). Self –coSe be the opposite of cognitive anxiety and is another important factor in managing stress

2. The Psychological Performance Inventory: The PPI is a 42-item self-description Inventory with seven Likert-scored subscales of MT Self Confidence, Negative Energy Control, Attention Control, Visualization & Imagery Control, Motivation, Positive energy and Attitude Control.

Data Analysis

The focus of this research was to examine the relationship between mental toughness and competitive state anxiety among hockey players. To explore the dimensions of all the variables, the mean and Pearson correlation coefficient was used for correlation between variables. A p-value <0.05 was considered significant. Analyses were performed using SPSS 19 (IBM SPSS Statistics 19, SPSS inc., an IBM Co., Somers, NY

Results

Table 1 : Descriptive Statistics

Variable	Mean	Std. Deviation
Self Confidence	25.364	3.526
Negative Energy Control	20.864	3.4128
Attention Control	20.273	4.997
Visualisation & Imagery Control	26.045	4.0057
Motivation	27.136	2.9162
Positive Energy	26.182	2.4424
Attitude Control	26.591	3.2169
Somatic Anxiety	19.5168	5.91732
Cognitive Anxiety	21.5	6.0139
Self Confidence (CSAT)	34.455	6.8154

Table 2

Correlation between Mental Toughness and Competitive State Anxiety

Variable	Somatic Anxiety	Cognitive Anxiety
Self Confidence	-0.513	-0.397
	0.015*	0.067
Negative Energy Control	-0.598	-0.655
	0.003*	0.001*
Attention Control	-0.452	-0.444
	0.035*	0.039*
Visualisation & Imagery Control	-0.093	0.218
	0.680	0.329
Motivation	-0.428	0.039
	0.047*	0.862
Positive Energy	-0.529	-0.029
	0.011*	0.897
Attitude Control	-0.344	-0.026
	0.117	0.909

Discussion

The goal of this study was to examine the relationship between mental toughness and competitive State Anxiety among hockey players, taking into account the pertinent impact of psychological factors in the sports world. The study involved the use of quantitative assessment tools. The sample population for the study was 22 - National Centre of Excellence (NCOE) Hockey players. Thereafter, the data collection process took place with the help of questionnaires. Analysis took place via Pearson's correlation coefficient with the help of SPSS (statistical package for the social sciences).

The Null hypothesis (H₀) was rejected, indicating that there is a significant relationship between Competitive state Anxiety and Mental Toughness on five dimensions- Self Confidence, Negative Energy Control, Attention Control, Motivation, and Positive Energy to experience with Somatic Anxiety and three dimensions - Negative energy control, Attention Control and Visualisation & Imagery Control to experience with Cognitive Anxiety. These results suggest that mental toughness plays an important role in managing anxiety levels in athletes.

The findings also suggest there is a significant relationship between self-confidence and somatic anxiety (-0.513). The findings demonstrate that somatic anxiety and self-confidence are negatively correlated, implying that when an athlete feels low self-confidence, then they could also experience high somatic anxiety, which expresses as jitteriness, physical tension, or a sinking stomach. In support of this, a study has been also seen as consistent with previous research by Hyunwoo Kang and Seyong Jang which suggested that an effective reduction in anxiety would improve players' confidence and thereby improve their performance. This study found a considerable detrimental impact of competition anxiety on players' confidence (Kang & Jang, 2018). This highlights the importance of developing strategies to manage anxiety in order to improve confidence and overall performance. This study found a considerable detrimental impact of competition anxiety on players' confidence (Kang & Jang, 2018). Before a game, athletes who are more anxious and negative in their thoughts will perform worse since they may be less focused and confident in their abilities. The study provides strong support for our finding of Self Confidence.

Similarly, a significant relationship was found between Motivation and Somatic Anxiety (-0.428), where motivation is found to be negatively related to Somatic anxiety. Similarly, motivation and somatic anxiety have been found to be significantly correlated. (-0.428).

According to a previous study titled "Impact of motivation on anxiety and tactical knowledge of young soccer players," motivation had a major impact on how anxious a player was. It depicts how intense anxiety can prevent people from concentrating on important tasks, while low levels of anxiety may be a sign of low motivation and the need for a stimulating environment. (Borges et al., 2018). This demonstrates the significance of including this variable in training plans.

Given previous studies suggesting that visualization can be a useful coping mechanism for anxiety (Parnabas and Mahmood, 2012), this absence of a significant relationship between visualization, imagery control, and anxiety was somewhat unexpected. The previous findings additionally demonstrated that visualization can reduce anxiety and improve an athlete's athletic ability.

Furthermore, a significant relationship was found between Positive energy and Anxiety (-0.529). Positive energy is negatively related to Somatic anxiety which translates that the higher the positive energy, the lesser will be the anxiety level. A significant relationship was also found between Attention Control and Anxiety (-0.452). Attention control is negatively related to both somatic and cognitive anxiety. In support of this, a study suggested that there exists an inverse relation between lower attentional control level and the somatic anxiety dimension of state anxiety (Lourido, 2019). According to findings, individuals that are anxious are more susceptible to the effects of distracting stimuli and are more likely to become distracted. Our results are consistent with the Attentional Control and other investigations, where it was discovered that anxiety experimentally interfered with attentional processing.

Recommendations and Conclusion

This study sought to determine whether and how much mental toughness contributes to the causes of athletes' anxiety states. The findings revealed statistically significant relationships between overall mental toughness and somatic & cognitive anxiety. Hockey players demonstrated a high level of motivation followed by Attitude control, Positive energy, Self-confidence and Visualization & Imagery control whereas there were lowest signs reflected in Attention Control and Negative energy control. In terms of anxiety, hockey players demonstrated a higher level of Cognitive anxiety as compared to Somatic anxiety. This goes on to prove that mentally tougher athletes who are characterized by high levels of confidence and motivation and who have good control over attention, negative energy and visualization, they approach difficulties as obstacles that must be overcome. Such a cognitive and motivating strategy can

explain why mentally tough athletes have lesser anxiety. On the other hand, cognitive and somatic anxiety are more prominent in athletes who lack self-confidence, are impulsive, fear demanding and difficult responsibilities, avoid them out of fear of failure, lack willpower, and wrongly control their emotions and behavior (Zubic,2021).

In conclusion, this study provides valuable insights into the relationship between State Sport Anxiety and Mental Toughness on several dimensions. The results suggest that mental toughness training may be an effective way to manage anxiety levels and improve athletic performance. Further research is needed to explore the effectiveness of different mental toughness training strategies and their impact on anxiety and performance in different athletic contexts.

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46. Perspectives of Implementing Psychological Pressure during Training

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Abstract

This thematic study explored the importance of psychological pressure training during practice and how it is helpful to improve the quality of handling pressure and improvement in performance in competition. As a part of this study, thematic analysis was done with the help of various studies. The studies showed that psychological pressure during training would help to develop coping skills under pressure. The research also reveals that pressure in training can help athletes adjust to pressure in competition. The studies suggest that coaches or practitioners can create mental pressure by applying psychological demands and consequences that have an extended impact on athletes. The nature and intensity of the pressure used by coaches or trainers can also be a critical factor. There are only a few researches in this area, so there is a vast scope of research.

Keywords- Psychological/mental pressure; coping skills; consequences.

Introduction

Different sports disciplines can have varying levels of mental pressure on athletes, and this pressure can also vary based on the level of competition. For example, a high-pressure situation in a team sport like basketball player could be the final seconds of a close game with the outcome on the line. If a team is down by one point with only a few seconds left on the clock, the player who has the ball may be under immense pressure to make a game-winning shot or assist their teammate in doing so. In this situation, the player may be closely guarded by the opposing team, and the clock is ticking down, adding to the sense of urgency. Additionally, the player may be aware of the expectations of their coach, teammates, and fans, which can increase the mental pressure to perform. The player may also be aware of the consequences of missing the shot or making a mistake, such as losing the game and potentially facing criticism from others.

A high-pressure situation for a 100-meter athlete could be the final race in a major international competition, such as the Olympics or World Championships. In this situation, the athlete may be competing against other elite sprinters from around the world, and there may be a lot of anticipation and hype surrounding the race. The athlete may have also been training for years leading up to this moment and may have a lot riding on their performance, such as winning a gold medal or breaking a record. In addition, the athlete may be under pressure to perform well in front of a large crowd and a worldwide television audience, which can add to the mental pressure. The starting blocks may feel heavier, and the adrenaline may be pumping, as the athlete knows that they have only a few seconds to sprint at their absolute best and leave it all on the track. All of these factors can contribute to a high-pressure situation for a 100-meter athlete

Additionally, the level of competition can also affect the mental pressure on athletes. Competing at a local or regional level may not carry as much pressure as competing at a national or international level, where there may be more at stake, such as qualifying for the Olympics or winning a major championship. The pressure can also be magnified for athletes who are expected to perform at a high level and are under a lot of scrutiny from coaches, teammates, fans, and the media.

Opinions on mental pressure training during practice sessions can vary depending on the individual and their experiences. Some people may believe that mental pressure training is important because it can help athletes prepare for the stress and pressure they may face during competitions. They may argue that practising under pressure can help athletes develop the mental toughness and resilience necessary to perform well under stress.

On the other hand, some people may argue that mental pressure training can be counterproductive and even harmful if it is not in systematic way. Athletes like Michael Jordan and Kobe Bryant have spoken about the importance of mental toughness and practising under pressure to achieve success. They believed that training under pressure could help them perform better in high-stress situations and develop the mental resilience necessary to overcome adversity. Sports psychologists such as Dr. Jim Taylor have advocated for mental pressure training as a way to help athletes learn to manage anxiety and stress during competition. However, they also emphasize the importance of ensuring that athletes do not experience excessive stress and burnout during practice sessions.

Overall, it is important to strike a balance between mental pressure training and skill development during practice sessions. While some pressure can be beneficial, it is important to avoid excessive stress and prioritize the health and well-being of athletes. Coaches and trainers should consider the individual needs and preferences of their athletes when designing practice sessions that incorporate mental pressure training.

Methods

There are several methods that coaches, sports psychologists or trainers can use to implement mental pressure training during practice sessions. Mental pressure training can be delivered in different ways in different sports during practice, and each game must be given its own set of considerations for mental pressure training in practice. Here are a few examples:

Simulate Competition Conditions

One way to practice under pressure is to simulate competition conditions as closely as possible. This could involve creating a competitive atmosphere, playing loud music, or incorporating time limits or scoring systems. The goal is to create an environment that feels as close to a real competition as possible, so athletes can practice managing their nerves and emotions.

Practice Match Goals Setting

Prepare a set of goals in advance, for example, like Volleyball or point/set system sports discipline, the team should set the exact points/set to take and to give to the opponent.

Incorporate Goal-Setting

Setting specific, achievable goals can help athletes stay focused and motivated during practice. Coaches can work with athletes to set goals related to skill development, performance, and managing pressure. This can help athletes stay motivated and focused on their progress, even when faced with high-pressure situations. For example, Penalty Kick in Football, Free throw in Basketball, service in critical points in Badminton, Volleyball like games etc.

Stoker et al. (2016) conducted interviews with coaches who had employed pressure training after realising that the systematic production of pressure had received little attention. The framework that resulted divided pressure manipulations into demands and consequences. Rewards, forfeits, or judgements were among the possible outcomes. Demands enhanced the complexity of the task, for example, by making the environment noisier or by imposing regulations during a

practice. In studies that evaluated this concept, demands alone did not result in pressure, but consequences or a mix of consequences and demands did (Stoker et al., 2017, 2019).

Finding and Discussion of Various Studies

The studies reveal that the nature of a specific reward or punishment by itself may not put an athlete under mental stress during training. The idea of producing others to experience that consequence could increase the pressure. Judgments or forfeits become increasingly significant as a result of the consequence of expanding scope. Even if a single consequence could be momentarily unpleasant (such as exhausting or moderately embarrassing), the consequence that have a wider impact frequently keep people focused on the athlete's performance.

Increasing competitiveness and consequences within training could magnify both the level of challenge and athletes' motivation to win or perform their best. This competitiveness and consequences seemed to increase mental pressure. The amount of pressure that athletes experience during competition does not necessarily decrease as a result of pressure training, but it does aid in performance by allowing athletes to (a) learn and practice coping mechanisms, (b) "change the relationship" with pressure, and (c) improve the quality of training (William et.al., 2022).

Athletes who trained under pressure acquired coping mechanisms and how to question preconceived notions about pressure. Thematic analysis, which is influenced by pragmatism (Giacobbi et al., 2005), organised these data into themes that may help practitioners and coaches plan and get ready for pressure training. The job (e.g., drill regulations), environment (e.g., noise), or performer (e.g., weariness) may already be altered by coaches, but these physical or tactical demands do not enhance pressure until linked with consequences (Stoker et al., 2017).

Participants in a study reported that pressure training that barely resembled competition's pressure. Oudejans and Pijpers (2010) discovered that training with modest anxiety could increase performance under larger levels of anxiety. In reality, the goal of coping skill development recommends that in order to encourage learning, pressure should be applied progressively rather than maximally right once. Pressure training has been founded on systematic desensitization and stress inoculation training, which expose people to modest amounts of stress at initially and then progressively raise them as they get accustomed to them (Bell et al., 2013; Kegelaers et al., 2021).

The degree of pressure should be raised as athletes enhance their coping skills (Fletcher & Arnold, 2021). As athletes are still learning coping mechanisms, practitioners and coaches should keep manipulating the environment to add pressure while also acknowledging that reduced pressure can still be advantageous and even desired. Training under a combination of low and high anxiety has been shown to increase performance for complicated tasks more effectively than training under solely high anxiety (Lawrence et al., 2014). Explaining the advantages of pressure training to players might aid in creating a culture that strikes a balance between the challenge of pressure and support from coaches and staff (Fletcher & Sarkar, 2016). Practitioners might explain that the intervention provides a chance for the athlete to practice coping skills that are crucial for success. Pressure training should be conducted in an environment that encourages athletes to respond positively to the challenge of pressure.

Conclusion

In various studies, the methods by which pressure training enhances performance and creates pressure in training were examined. Themes show how applied practice may enrich the knowledge of how an intervention functions since it mirrored participants' experiences in actual training and competition. The results show how practitioners might examine ways to produce pressure other than the seriousness of consequences or complexity of a job, even if they do not necessarily reflect the sole common characteristics of effective pressure manipulations. According to research on the advantages of performance, pressure training improves performance by giving athletes the chance to develop coping mechanisms and understand that performance pressure need not be detrimental. In order to assist athletes and coaches appreciate the value and goal of pressure training, practitioners can discuss these advantages. The studies in this area are comparatively very less and there is a big scope to explore.

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47. A Study of the Effects of Sports Psychology on Athletes

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Modern age is the age of competition. In this age of competition, everyone has started competing with each other. Your mental health is lost while competing. According to health science, sports are an important tool to overcome this. Because sports exercise the body. The body becomes flexible and healthy. There is competition in sports. Also success and failure are two factors. Success - failure increases self-confidence and motivation in a person. In any sport one does not have confidence in one's playing. Until then the player cannot play. Mentoring is done in sports psychology to increase and maintain self-confidence.

In terms of sports related problems and development, work is mainly done in sports psychology. Research, guidance, problem solving etc. are studied and taught in sports psychology. Sports keep our body fit. Sports is no longer just a means of entertainment or enjoyment, it does not take the form of a profession or a career, national pride etc. World Cups like football, crickets etc. are held. In this, our country's team is seen in terms of an identity. Crores of rupees are spent for the tournament organized at the global level. Each country has a separate ministry working in the context of sports. Success and failure in sports is viewed with national pride and national spirit. A separate and applied branch of psychology was created to study mental health, emotions, motivation, etc., called sports psychology. Sports psychology is useful for training, mental capacity building, mental health promotion, research, education. The utility of sports psychology can be seen from the following discussion.

Keywords : Sports, Psychology, Athletes.

Introduction

Sports psychology studies and guides the athlete's abilities, mental health, skill development, emotional motivation, self-confidence in terms of sports. Sports psychology tries to solve the problems that arise in the context of sports. The work of encouraging and motivating

the athlete is done in sports psychology. Sports psychology deals with improving the morale of athletes. Accordingly, the usefulness and functions of sports psychology are as follows.

1. Training

The formation of the athlete is through the interplay of the athlete's abilities and the qualities of the sports teacher. Physical and mental development of the player also contributes to financial development. The sports teacher has to train the sportsperson by recognizing the specific qualities and abilities of the athlete. So the player becomes versatile in that game. Meanwhile, the player's mental health, determination to live, self-confidence, unnecessary habits are removed. The indirect effect of the sports teacher's guidance depends on the success or failure of the athlete. Therefore, a sports teacher must possess excellent training skills. Sports psychology develops the fundamentals of this training skill.

At present, many types of training are provided in relation to sports. Because the usefulness of training has been proven. Training, capacity building training, physical training, mental health training are essential in building a successful athlete. At present, many processes, mechanical materials are being developed using scientific methods to develop sports skills. In this way, sport psychology contributes to the development of instrumental literature.

2. Mental Capacity Enhancement

The human being is a unique combination of physical and mental abilities. Physical and mental are the two wheels of personality. Humans can achieve nothing if any one wheel breaks down. If a person is disabled then that person cannot master sports. Sports psychology works to guide physical education to develop the skills required in sports contexts, while to improve mental skills.

Sports psychology works to improve the mental strength of the athlete. The importance of mental ability in sports returns is different. In both the sport of wrestling and chess, the importance of different types of physical and mental abilities is different. Sports psychologists measure the mental abilities of athletes and take measures to increase the necessary abilities. Efforts are made to increase capacity.

3. Mental Health Promotion

Sport is a type of work transaction and the importance of psychology in the place where the transaction takes place cannot be denied. Playing sports is a combination of physical skills, emotions, motivation, determination, confidence, memory thinking, geographical location of the

players. For that a sports coach must have knowledge of sports psychology. The success or failure of the game affects the mentality of the player. Repeated failures can lead to depression, inferiority complex, feelings of worthlessness, loss of self-confidence. Sometimes a little success can lead to overconfidence, as well as under confidence. Although sports are a means of entertainment, players are under a lot of mental pressure while playing. A constant feeling of pressure has an adverse effect on the psyche.

Boxing, wrestling can sometimes lead to extreme levels of aggression. In such cases, the role of the sports coach becomes important to control. Therefore, sports training must have knowledge of sports psychology.

4. Research

Sports psychology is a recognized science.' Today many competitions are organized at school, college, taluka state level, national, international level. The importance, impact and interest of sports competition has increased among the general public. Compared to this, the problems in this sector have also increased. It is necessary to conduct a scientific examination, observation and experimental analysis of the player's mental ability, physical ability, mental and physical condition of the player. Therefore, experimental and applied research in the context of sports is in order. Sports psychology does this kind of research. Like cricketer master blaster Sachin Tendulkar joined the national cricket team at the age of 16. What physical and mental abilities he acquired for how he acquired cricket skills at such a young age. Research findings of such nature are influential and inspiring for others. Many types of research are done such as which rules should be made to determine the success or failure of the game so that the format of the game remains fixed and orderly. Sports psychology conducts applied research and makes recommendations to the field of sports.

5. Education

Development of a person is gradual. Sensory experience, social, material economic status from childhood has an effect on the development of the child. The development of a child between 1 year and 5 years lasts till the end. If the child gets pleasant experiences during childhood, the personality development of the child is good. A rich personality is formed by further development of education, culture and experience in childhood. In childhood, children are imitators, so what should be the education in childhood, sports education in relation to

primary education, higher education level, sports science curriculum teaching methods, teaching skills, sports education and training programs etc.

Sports psychology plays an important role in developing children's interest in sports, developing and enhancing their abilities, determining the necessary curriculum for developing sports skills, determining which field is best for which sport. From the above discussion, it can be seen that sports psychology has gained an important place in the field of sports.

Sports and Psychology

If you look at the current routine of all the students, it can be seen that their exams, tuition classes, studying by their parents, various hobby classes in the remaining time, learning some language and mobile in hand in the remaining time. Parents of many children decide to send them to play classes to channelize their wasted energy. But that too is a part of routine, a commitment. It does not lead to joy and free play. There is no exercise until you sweat enough. Again, the coach instills hope in the parents' minds that, "Let's play it at district level or state level this time. He has capacity, but he doesn't work hard. He doesn't concentrate. "Any parent sees their child as Milkhasingh, instead of Sachin. Then along with studies, sports also get pressured and the children lose their joy. "Balam Rashtasya Vardhanam" The progress of any country is due to the power of the young generation of that country to meet the challenge, patriotism to try for its development. Therefore, if we want Balisage India, the young generation should be strong, tenacious and strong. Knowing this importance from the beginning, our saints and educationists have taught life. Balopasane was looked upon as an integral component. Samarth Ramdas tried earnestly to inculcate the same thought. Exercise school removed.

Health is not only the absence of disease, but the state of physical, mental, emotional, social, intellectual, spiritual, well-being of every person! A strong or healthy body is not a gross body, but one should be aware that many aspects of personality are associated with it. Sports or games are an important part of human culture.

Although study and competition are the reasons for not giving importance to playing, lack of motivation is also an important reason, there is also a reason for motivation to improve career in the field of sports. Motivation is an important factor behind any person's behavior and actions.

Guilfort, a psychologist, said that a person's motivation to participate in sports depends on the individual's specific characteristics and abilities. A person's interest in exercise and

participation in sports is directly related to certain personality traits. There are many differences in personality between people who participate in sports and exercise and those who do not.

Behavior seen on the playground is characteristic because it is a habit formed by doing the same action over and over again. Since this habit or turn is attached to the body and mind, the person involved in sports and exercise is also seen to be punctual and regular in terms of diet, sleep and routine.

Sociability and sociability! After participating in a sport, there is constant interaction with other players, organizers, managers, referees, officials, spectators. Compromise also has to be done in inter personal relationship. Therefore, sophistry comes automatically. Compared to those who do not participate in sports, punctuality is also more common in those who participate in any kind of sports. Because there is a need for any timing in sports.

Social intelligence, thinking and reasoning are required in team sports. Therefore, it continues to be practiced among those participating in sports. The reason for increasing self-confidence is that due to the regularity of exercise, a strong and healthy body is self-satisfying, that is, self-respect or self-identity. A confidence is created.

Athletes who participate in any team sport are extroverts. Along with physical toughness comes toughness, mental toughness, courage to get through any situation. Courage to gain control over external circumstances. Many parents try to bring all these qualities in their children. But they don't necessarily come that way. This is a very important solution for that. That is why it is very important to let children play freely. The main thing is that the power to concentrate on a single task increases. Concentration improves further with practice.

If children are allowed to play freely, they will discover the outdoor games they like. Then there is no problem even if coaching is done for that game. But let us not put the burden of competition on them! The desire to win while playing will automatically come in them and other qualities that you want will also come.

Conclusion

In terms of sports, the player's ability, mental health, skill development, emotions, motivation, self-confidence are studied and guided. Sports psychology deals with solving the problems that arise in sports. Research, guidance and training related to sports is done in sports psychology. Therefore, sports psychology has an important place in the field of sports.

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48. Comparison of Selected Psychological Variables among Inter-State Hockey and Cricket Players

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Abstract

The objectives of the study to check sports competition anxiety and achievement motivation test of the hockey and cricket players. The procedure adopted for the selection of subjects, this study was designed to compare the sports competition Anxiety, sports achievement motivation, between Hockey and Cricket University Women players. To achieve the purpose of the study the investigator had selected randomly 50 Hockey and 50 Cricket University women players, who have participated in inter-state tournament as subjects. The age of the subjects chosen for this study were ranging from 18- 25 years. The study was measure selected psychological variables of sports competition anxiety and sports achievement motivation. The brought points of the study that was not be measure physical and anthropometric variables. The present study was delimited to Hockey and Cricket games. The study was delimited to university players, who were taken part in the inter-state Hockey and Cricket tournament. The study was confined to women players only. The study was further delimited to selected psychological variables. The result of the selected psychological variables among Cricket players of selected for this study showed that, there is a significant difference in sports competition anxiety 0.530, and sports achievement motivation is .085. Of Cricket women players of the selected for this study. The result of the selected psychological variables among Hockey players of selected for this study showed that, there is a significant difference in sports competition anxiety (0.093) of Hockey women players and significant difference in sports achievement motivation (0.096) of hockey women players. The conclusion of this study was. The significant difference was found in sports competition anxiety and sports achievement motivation between cricket and hockey inter-state women players. Cricket Women Players are having more sports competition anxiety than the Hockey Women players. Hockey women Players have shown high achievement motivation when compared to Cricket Women players.

Key words – Motivation and Anxiety.

Introduction

Sports in the present day have become extremely competitive. Previous records are being broken whenever there is a competition. It is not the more participation or few days practice, that being an individual's victory, but the continuous hard work of training right from childhood, a strong self-determination and certain psychological factors. Individual and team sport have valuable contribution to make to all who discover the fun, challenge and adventure in playing them such riches are equally available to both the sex. Women in sport are now serious force in world competition and the domination by men of elite is threatened at a professional level, the quality and quantity of high money earning. Women are quite remarkable and the publicity attracted has led to a media glamorization of healthy performance and vitality. Psychological skills play an important role in athletic performance. Sport specialists agree that athletic performance is influenced not only by physical skills but also by psychological ones. In order to achieve peak performance athletes need a "total package" including physical skills, psychological skills, fitness and injury prevention Athletic performance could also be influenced by team or coaching variables and social support issues.' An essential part of research of athletes' psychological skills. Although previous research focused primarily on the differences in personality characteristics between successful and unsuccessful athletes, recent studies examine those differences in terms of the psychological skills which athletes have practiced and used a common approach of measuring athletes' psychological skills is through questionnaires or inventories. Psychological skills have been found to differentiate successful and unsuccessful athletes. Performance anxiety is common in sports, as to some extent, fear of performance helps in achieving desired concentration. However, the excess will lead to a rush of adrenaline termed as anxiety. Whenever athlete feel short of breath, sweating, shaking or high heart beat rate will lose concentration, her/his actions become disjointed and athlete feel paralyzed at the beginning of an important sporting event. These are symptoms of performance anxiety athlete no longer feel confident in himself and do not believe that he will be able to accomplish anything successful. To deal with such thoughts he must learn how to manage anxiety and to do so, it is imperative to understand how sports performance and anxiety are interrelated. "Anxiety affects a sports players' performance in physiological, cognitive and behavioral ways. If he suffers from anxiety before an important athletic competition, his sports performance will be affected. When athlete body is tense and blood pressure high, it is difficult for his body to move in a fluid and

coordinated manner". Athlete actions will be jerky and misplaced, affecting his performance in a negative manner.

Methodology

To achieve the purpose of the study the investigator had selected randomly 50 Hockey and 50 Cricket University women players, who have participated in inter-state tournament as subjects. The age of the subjects for this study were ranging from 18- 25 years. The psychological factors as aggression, anxiety- its control and management, discussion with prominent physical educationists in this field and availability of instruments, it were decided to select the following variables.

- **Sports Competition Anxiety (SCAT – sports competition anxiety test)**
- **Sports Achievement Motivation (SMAT – sports achievement motivation test)**

Selection of Subjects

To achieve the purpose of the study the investigator had selected randomly 50 Hockey and 50 Cricket University women players, who have participated in inter-state tournament as subjects. The age of the subjects chosen for this study were ranging from 18- 25 years.

Statistical Techniques used for Analysis of Data

To compare the data of selected psychological variables between inter university women Hockey and Cricket University players was tested with 'T' test, one way analysis of variance found significant by using Statistical Package for Social Science (SPSS). The statistical analysis of data has been presented in. The subjects' characteristics psychological variables Sports Competition Anxiety, Sports Achievement Motivation were collected.

Result

Table 1

Minimum, Maximum, Mean And Standard Deviation Value of Sports Competition Anxiety

Test Otivation of Female Cricket and Hockey Players

		N	Mean	Std. Deviation	Std. Error Mean
SCAT	CRICKET	50	19.3000	2.97095	.42016
	HOCKEY	50	17.6800	3.68915	.52172

Table 1 indicates the minimum, maximum, mean and standard deviation of body mass index of female university level cricket and hockey players. The mean and standard deviation of

sports competition anxiety test of cricket player was 19.3000 and 2.97095. The mean and standard deviation of sports competition anxiety test of hockey player was 17.6800 and 3.68915.

Table 2

Interpretation of Independent Samples Test for Sports Competition Anxiety Test of Female Cricket and Hockey Inter- State Players

	Levene's Test for Equality of Variances	t-test for Equality of Means								
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
SCAT	Equal variances assumed	3.359	.070	2.418	.98	.017	1.62000	.66987	.29066	2.94934

Form the table 2 it is evident that the t value is 2.418 which is not significant at 0.05% level with degree of freedom equal to 98. It reflects that means course sports competition anxiety test of female cricket and hockey was differ significantly .070 in this context the null hypothesis there is no significant difference in mean scores of sports competition anxiety test of female cricket and hockey was accepted.

Table 3

Minimum, Maximum, Mean and Standard Deviation Value of Sports Achievement Motivation Test of Female Cricket and Hockey Players

	N	Mean	Std. Deviation	Std. Error Mean		
SAMT	CRICKET	50	12.7400	2.85579	.40387	
	HOCKEY	50	12.4200	1.81928	.25729	

Table 3 indicates the minimum, maximum, mean and standard deviation of sports achievement motivation test of female university level cricket and hockey players. The mean and standard deviation of sports achievement motivation test of cricket player was 12.7400 and 2.85579. The mean and standard deviation of sports achievement motivation test of hockey player was 12.4200 and 1.81928.

Table 4
Interpretation of Independent Samples Test for Sports Achievement Motivation Test of
Female Cricket and Hockey Inter- State Players

	Levene's Test for Equality of Variances	t-test for Equality of Means								
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
SAMT	Equal variances assumed	9.886	.002	.668	98	.506	.32000	.47886	- .63028	1.27028

Form the table 4 it is evident that the t value is .668 which is not significant at 0.05% level with degree of freedom equal to 98 .it reflects that means course sports achievement motivation test of female cricket and hockey was differ significantly .002 in this context the null hypothesis there is no significant difference in mean scores of sports achievement motivation test of female cricket and hockey was rejected.

Discussion and Findings

The result of the selected psychological variables among Cricket players of selected for this study showed that, there is a significant difference in sports competition anxiety 0.530, and sports achievement motivation is .085. Of Cricket women players of the selected for this study. The result of the selected psychological variables among Hockey players of selected for this study showed that, there is a significant difference in sports competition anxiety (0.093) of Hockey women players and significant difference in sports achievement motivation (0.096) of hockey women players.

Conclusion

The significant difference was found in sports competition anxiety and sports achievement motivation between cricket and hockey inter-state women players. Cricket Women Players are having more sports competition anxiety than the Hockey Women players.

Hockey women Players have shown high achievement motivation when compared to Cricket Women players.

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49. Impact of Social Psychology on Sports

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Abstract

Sports play a meaningful role in the overall development of an individual. Many have come to realize that “sporting prowess has much to teach us about the workings of our minds” (Cappuccio, 2018). “Sports are played by the body and won in the mind (Moran, 2012). One has to consider individual’s background, perception, feelings, thoughts, constraints, response during training and competition, ... to get a glimpse of what goes on in one’s mind. These considerations help us to understand psychology of the player that shapes sports performance through a large number of factors that include, but are not restricted to, goals, motivation, mental toughness, attitude, confidence, arousal, and so on. Social psychology may help in understanding how a player may be influenced and thus trained. Since psychology and more so social psychology are not exact subjects, their influence on performance would have to be viewed accordingly. This paper makes an attempt to gain insight into the interactions and dynamics that affect sport performance and the sport experience to understand influence of social psychology on sports with the objective of its ability to optimise performance. Through the applicable nature of the research, the contents of this paper will fuel more research interest, ensuring growth in the field in the days ahead.

Keywords: Sports, Psychology, Sports Psychology, Social psychology.

Introduction

Sports include recreational, amateur, professional and elite sports. Improvement in performance can be considered regardless of the level of the game. But, for competitive sport, the sports persons trend to push individual limits, even to the extent of harm to themselves. “Sports psychology is now widely accepted as offering a crucial edge over competitors. While essential for continuing high performance in elite athletes, it also provides insights into optimizing functioning in areas of our lives beyond sports”. “Physical training and exercise are not sufficient to excel in competition.” Instead, key elements of the athlete’s mental preparation must be “perfectly tuned for the challenge” (Cappuccio, 2018). Psychological considerations, mental make up and mental wellbeing have become increasingly recognized as vital to consistently high degrees of sporting performance for athletes. “In attempting to

understand endurance limits, psychological variables have been confirmed as the deciding factor in ceasing effort rather than muscular fatigue” (Meijen, 2019). The brain literally limits the body. Mental processes are equally crucial in other aspects of sporting success, such as maintaining focus, overcoming injury, dealing with failure, and handling success. “Psychologists can help competitors enhance their performance by providing advice on how to be their best when it matters most” (Moran, 2012).

Sports Psychology

Sports psychology is the combination of many overlapping ideas and concepts that attempt to understand what it takes to be a successful athlete. “Sport psychology is about understanding the performance, mental processes, and wellbeing of people in sporting settings, taking into account psychological theory and methods” (Meijen, 2019). However, “there has been a move toward more multidisciplinary and interdisciplinary approaches, looking at the interactions between psychological, biomechanical, physiological, genetic and training aspects of performance” (Meijen, 2019). Most professional sportspersons recognize the critical role their mind has in performing at the top of their game i.e. the importance of mental strength and ability to push from within. “It’s not about what other people think and what other people say. It’s about what you want to accomplish and do you want to go out there and be prepared to beat everyone you play or face” (Moran, 2012). Vision and the right mindset will overcome constraints. “Vision, belief, science-led training, psychological support, and epic degree of determination are the essential ingredients that result in success” (Whyte, 2015). Reframing arousal can help one to understand feeling and what is being experienced to overcome anxiety. Visualizing success can help overcome limitations and constraints to achieve success.

Social psychology

Social psychology is the scientific study of how people think about each other, influence each other and relate to one another. Importantly, it focuses on people in context. The study can be considered as three broad areas of **Social thinking or cognition** (how we perceive ourselves and others, what we believe, the judgements we make and our attitudes); **Social influence** (refers to culture, pressure to conform, persuasion and groups/teams); and **Social relations** (refer to prejudice, aggression, attraction and helping).

Social psychology in sport

Social psychology in sport helps athletes to understand how they are influenced and informed. A sportsperson is part of a community. Social psychology in sport includes, but is not restricted to, social relationships, communication, coach leadership, team cohesion, motivation, audience effects, and morality. Social psychology in sport has grown immensely, but all the

important topics in the field have not been addressed collectively even now. Studies in social psychology in sport need to provide analysis of the field, explore social aspects of interactions, relationships, influences, and perceptions; address theoretical, empirical, and applied perspectives; probe established areas of interest such as group dynamics and coach–athlete and peer relationships; and analyse emerging topics such as relational effectiveness, passion, and cross-cultural issues. “Psychological processes in sport are inextricably linked to the social contexts within which they occur. However, research and practice, in applied sport psychology, have shown only marginal concern for the social dimensions of participation” (Brustad R & Ritter-Taylor, 1997).

Learning through Demonstration and observation

Watching others, and learning from their behaviour and experiences affects the way we perform and behave on a daily basis. Demonstration and observation of others performing a skill is a central way of learning. It has been shown that an individual’s performance will improve most when the demonstration is from a skilled superior. However, demonstrations from unskilled peers also are often effective. In 1961 Albert Bandura proposed seven points while using models and demonstrations for young people.

Effect of Spectators

The effect of having others present while performing can be mixed - positive or negative. Performers can suffer from evaluation apprehension that may lead to other detrimental effects. This is linked to Hull’s Drive Theory. The presence of an audience may increase arousal that can trigger the dominant response. If a skill is well-learned then the response will be correct and if the skill is new or poorly learned the response may be incorrect. There is also the question of whether a ‘home’ crowd affects performance. For some individuals, a home crowd is an advantage due to the friendly encouragement. For others, a home crowd usually includes family and friends and this thought increases the level of evaluation apprehension. The response of an athlete to a crowd may well relate to his personality type. Type ‘A’ personalities do not like to be judged. The negative effects of this social facilitation can be dealt with by using relaxation techniques, imagery, understanding of the way in which audiences can affect individuals, encouragement and support from team members, teaching new skills in a non-evaluative way etc.

Application of social psychology to sport

Crucial elements of team psychology include team building, team cohesion, socio metrics, social loafing... In a recent research, “team sport participation was associated with decreased odds of smoking/ tobacco use, alcohol/ drug use, and depression/anxiety... Though

few studies mentioned potential negative effects of team sport participation, the majority reported improved behavioural, psychological, and social health outcomes in youth athletes worldwide” (Zuckerman et al, 2021). Understanding of self and individual behaviour in the presence of others forms the basis of application of social psychology. This would direct the attention to emotions, their causes and impact on outcomes. Scope of this study is very vast. Some of the aspects related to application of social psychology to the field of sports are appended below.

Identify

The identity of an athlete shapes goals, attitude, motivation and performance. According to social identity theory, an individual’s identity/self-concept is heavily influenced from membership to a team or organisation. Identity can also be distorted by poor performances, poor results and/or performance losses. In times of injury or dips in performance, it is important to acknowledge that any threat to athletic identity can affect self-esteem. Therefore, athletes should seek and surround themselves with supportive networks, in and outside of sport. As sporting careers develop, athletic identity is found to be less important. Sport however, is one facet of life and with time comes understanding that ability and skills can be successfully transferred to other domains, like the work place.

Conformity and Compliance

Conformity is change in behaviour or belief to accord with others. Conformity is driven by a need to be liked by others and to be correct in what we do. Athletes are continually informed and influenced by others within their environment. These interactions can be positive or negative. Conformity also involves compliance, which is publicly acting in accord with a request while privately disagreeing with it (Internally, an athlete may disagree). In more extreme situations, athletes have to conform and be compliant to change. Sometime change is good, other times it can be detrimental to an athlete’s career. Athletes need to have clear, strong and committed values that benefit them long term. It is also important to stand behind those beliefs.

Team cohesion

Presence of cohesion supports athletes to harmonize their work. Cohesion can come about if team members enjoy being together. While examining the teams’ actual sports performance indicated by psychological factors, it was proved that “the teams’ performance is always lower than that of the individuals .. due to lack of trust and the deficits deriving from dissatisfaction and loss of trust” (Baumann, 2006, Steinerre, 1972). Ringelmann’s “rope pulling” theory detected the phenomena of social loafing. He found that when more and more people were asked to participate in the activity the maximum effort of individuals became less and less.

Athletes should become aware of this phenomenon. It has been observed that when two teams with different capacities had matches the weaker changed for the better whereas the members of the good team under-performed. Therefore it is important to prepare athletes with competences enabling them not to underrate their opponents. According to Tuckman's teamwork theory teams grow through clearly defined stages (Forming, Storming, Norming, and Performing), from their creation of groups of individuals, to cohesive task-forced teams. Thinking through these stages thoroughly we can understand that team building is a time consuming process. In teamwork coming together is a beginning; keeping together is progress; and working together is success.

Emotions

Emotions in sport are the result of a complex psychosocial process. However, "little attention has been paid to studying the mechanisms that underlie how group membership influences an athlete's emotional experience" (Terry et al., 2000). Traditionally, scientific research in the field of sport psychology was developed within a reductionist view of emotional processes, by mainly focusing on the individual rather than considering the social-self. However, emotions are social by nature and have an adaptive role in humans' functioning (Lazarus, 1999) in their social environment (Fischer & Manstead, 2008) to such extent they are now recognized as "an ubiquitous aspect of interaction between groups" (Mackie & Smith, 2018). "Achievement contexts, and especially those such as sport, are of particular interest when it comes to studying frequency, intensity, and balance of emotional experiences" (Lazarus, 2000). Competitive athletes are continuously under performance outcome pressures. However, while athletes' social environment may directly influence their emotions, other more indirect social mechanisms seem also to play a role in the emotional process. Accordingly, different authors have recently called to consider the "social-self in the study of emotions in the context of competitive sport" (Campo et al., 2012, 2017, 2018; Tamminen et al., 2016).

Emotions in groups - Emotions in groups have been extensively discussed in the social psychology literature. Literature examining emotions at the group level has suffered from a lack of clear terminology. Such terms (sometimes for similar concepts) are found in sport literature as well that include group-based emotions (Tamminen et al., 2016; Campo et al., 2019), collective emotion (Campo et al., 2016; Sullivan, 2018), collective mood (Totterdell, 2000), group emotions (Hyun-Woo & Youkyoum, 2013), and team-referent emotions (Campo et al., 2019). While different in essence, collective emotions (catching others' emotions) or team-referent emotions (appraising team's emotions) underlie an influence of others' emotions. Everyday examples of this influence abound in the sport setting.

Identity-based emotions - It is assumed that feeling emotions influenced by others' emotions is different from experiencing emotions as a group member, and/or on behalf of a group to which the person belongs (Totterdell, 2000). Group-based and inter-group emotions can be subsumed into the notion of identity-based emotions. Defined as "emotions that arise when people identify with a social group and respond emotionally to events or objects that impinge on the group" (Smith & Mackie, 2008), identity-based emotions are influenced by group membership and are, therefore, rooted in the person's social identity (Kuppens & Yzerbyt, 2012).

Social Identity - Social identity is defined as "a motivated cognitive mechanism that influences individuals' perceptions of themselves based on their knowledge of their membership in a (social) group" (Tajfel, 1978; Haslan, 2004). Thus, "individuals may attach a value of an emotional significance to their group, which results in some degree of group identification that then guides their behaviours" (Tajfel, 1978; Tajfel & Turner, 1979). "Social identity is considered as a key theoretical framework for understanding group functioning" (Brown, 2000; Haslan, 2004; Rees et al., 2015; Thomas et al., 2017). In general, social identity refers to that part of inter-group relations that explains individuals' behaviours – as members of an in-group – in the presence of an out-group (whether such presence is real, expected or imagined).

Multiple social identities - A person may have multiple social identities associated with his or her simultaneous membership in multiple different groups or social categories (Turner et al., 1987). Also, individuals may choose among several social identities to protect or value their self-esteem (Tajfel, 1978; Turner et al., 1987; Mackie & Smith, 1998; Haslan, 2004). More particularly, when one group becomes less positive for its members, individuals may, under certain circumstances, abandon that social identity and migrate to another one. "Social identity is part of the self-concept that derives from the knowledge of and emotional attachment to the group" (Tajfel & Turner, 1979).

Inter-group emotion theory - The combined social identity and appraisal theories, lead to the creation of Inter-group emotion theory (Mackie et al., 2000; Smith & Mackie, 2008) that considers social identity as influencing the appraisal process out of which emotions arise. Synthetically, appraisal theories consider that emotions arise from individuals' cognitions considering the person-environment transaction (Lazarus, 1999; Scherer, 2009; Scherer & Moors, 2019). In the emotion literature, opposing views exist on the number and the identity of the variables that play a role in the appraisal process (Moors et al., 2013). Most of them also consider others components influencing the person-environment transaction, such as certainty,

agency (degree of responsibility in the situation that leads to a blame or credit) and coping potential (Moors et al., 2013).

Associations between emotions and social cognitions in sport

A first attempt to examine associations between emotions and social cognitions in sport may be found in Levine & Reicher, (1996) study showing that social identity influenced perceived stress engendered by injury. Other researchers have shown relationships between group cohesion variables and affective states. For example, Henderson et al. (1998) found associations between group-integration, and moods and perceived stress. When personal identity was salient, the players' emotional (negative) state influenced their appraisal of their team's affectivity (i.e., team-referent emotions). Ultimately, this negatively influenced individual and team performances. Campo et al. (2019) investigated the effects of comparing the emotional effects of self-categorisation to the club with those of self-categorisation to the sport, the latter social identity considered as a more inclusive social identification to a super-ordinate group (i.e., a higher level of self-abstraction). Their findings showed that by considering the target (in-group or out-group) and the identity levels, different identity-based emotions were experienced before competition among athletes. They support the conceptual notion of multiple identities (Deschamps & Doise, 1979; Roccas & Brewer, 2002) by providing evidence that emotions in sport depend on the interaction of several sport-related social identities. Taken together, this body of research provides evidence of the influence of identity processes on emotions during competition. Nevertheless, in the light of these few existing studies, one may say that this subject is still in its infancy and that it warrants further investigation.

Conclusion

Social psychology is a relatively new field of study that looks at psychology in the social context. Since sportspersons are a part of community, their response to stimuli can be explored using the understanding of social psychology. The responses, besides being applicable to sport flow into their routine lives and affect individual reactions to various situations that they may face. Competitive sport demands are quite different from recreational sport. Moreover competitive play affects spectators and their response to outcomes of the competition. Emotions play a key role in outcomes. There has been a move toward more multidisciplinary and interdisciplinary approach, looking at the interactions between psychological, biomechanical, physiological, genetic and training aspects of performance in sport. All humans are unique and their circumstances and experiences during their growth and development may be vastly different. There is a need to understand the social context and the individual that is varying all the time. Generalisations from the study may not be directly applicable to all situations. Further

research may be considered to understand better the impact of social psychology on emotions, behaviours, and group dynamics in sport.

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50. भार प्रशिक्षण का स्वास्थ्य पर प्रभाव

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प्रसाद बंटी सुरेंद्र

आकाश अशोक यादव

अनुसंधानकर्ता

अब्स्ट्रैक

कंकाल और मांसपेशियों की ताकत और आकार को विकसित करने के लिए भार प्रशिक्षण एक सामान्य प्रकार का प्रशिक्षण है। यह सांद्रिक या विलक्षण संकुचन के माध्यम से मांसपेशियों द्वारा उत्पन्न बल का विरोध करने के लिए भारित, डंबेल या वजन के रूप में गुरुत्वाकर्षण बल का उपयोग करता है। आपके संतुलन में सुधार कर सकता है, आपकी हड्डियों को मजबूत करता है, और आपको बेहतर दिखने और महसूस करने में मदद कर सकता है, तो वजन प्रशिक्षण वे सभी लाभ प्रदान कर सकता है। भार प्रशिक्षण को स्ट्रेंथ या रेजिस्टेंस ट्रेनिंग के रूप में भी जाना जाता है, यह शारीरिक गतिविधि है जिसे फ्री-वेट, वेट मशीन या आपके खुद के शरीर के वजन सहित बाहरी प्रतिरोध के खिलाफ एक विशिष्ट मांसपेशी या मांसपेशी समूह का व्यायाम करके मांसपेशियों की फिटनेस में सुधार करने के लिए डिजाइन किया गया है। हर किसी के लिए यह जानना महत्वपूर्ण है कि भार प्रशिक्षण का मतलब सिर्फ बॉडी बिल्डर्स द्वारा जिम में वेट उठाना नहीं है। वजन या प्रतिरोध प्रशिक्षण भी दुबला मांसपेशियों के प्राकृतिक नुकसान को रोकने में मदद करता है जो उम्र बढ़ने के साथ आता है। इसका मतलब है कि यह आपकी समग्र फिटनेस का एक महत्वपूर्ण हिस्सा है और यह सभी उम्र के लोगों को लाभ पहुंचाता है, साथ ही यह मोटापे, गठिया या हृदय की स्थिति जैसे स्वास्थ्य संबंधी समस्याओं वाले लोगों के लिए विशेष रूप से महत्वपूर्ण हो सकता है। यदि आप वजन या प्रतिरोध प्रशिक्षण को अपनी दिनचर्या में शामिल करना चाहते हैं तो आपके पास बहुत सारे विकल्प हैं। आपको निश्चित रूप से जिम या महंगी वजन मशीनों की जरूरत नहीं है, घर पर एक कुर्सी पर बैठना, पुश-अप्स, तख्तों या अन्य आंदोलनों के लिए आपको अपने शरीर के वजन का उपयोग करने की आवश्यकता होती है क्योंकि प्रतिरोध बहुत प्रभावी होता है। यदि आपके पास कोई स्वास्थ्य समस्या है, तो अपने डॉक्टर से पूछें कि आपकी आवश्यकताओं और क्षमताओं को पूरा करने के लिए किस प्रकार का वजन प्रशिक्षण सबसे अच्छा है। आप एक शक्ति-प्रशिक्षण कार्यक्रम तैयार करने के लिए एक फिटनेस विशेषज्ञ के साथ भी काम कर सकते हैं जो आपके लिए सुरक्षित और प्रभावी होगा।

भार प्रशिक्षण इस सिद्धांत पर आधारित है कि शरीर की मांसपेशियां एक प्रतिरोध बल पर काबू पाने के लिए काम करेंगी जब उन्हें ऐसा करने की आवश्यकता होगी। जब आप बार-बार और लगातार प्रतिरोध प्रशिक्षण करते हैं, तो आपकी मांसपेशियां मजबूत होती हैं। एक व्यापक फिटनेस कार्यक्रम में संयुक्त कार्य, अस्थि घनत्व, मांसपेशियों, कण्डरा और स्नायुबंधन की ताकत में सुधार के लिए वजन प्रशिक्षण, साथ ही साथ आपके दिल और

फेफड़ों की फिटनेस, लचीलापन और संतुलन अभ्यास में सुधार के लिए एरोबिक व्यायाम शामिल है। भार प्रशिक्षण में विभिन्न घटक होते हैं।

भार प्रशिक्षण और संतुलन अभ्यास।

- **भार** – विभिन्न वजन या अन्य प्रकार के प्रतिरोध, उदाहरण के लिए 3 किलो हाथ का वजन या निश्चित वजन।
- **दोहराव** – यह दर्शाता है कि आप प्रत्येक व्यायाम को एक सेट में कितनी बार लगातार दोहराते हैं।
- **सेट** – आराम के बिना किए गए दोहराव का एक समूह है।
- **आराम** – आपको सेट के बीच आराम करने की जरूरत है। व्यायाम की तीव्रता के आधार पर आराम की अवधि अलग-अलग होती है।
- **विविधता** – अपने वर्कआउट रूटीन में बदलाव करना, जैसे कि नियमित रूप से नए व्यायाम शुरू करना, आपके लिए चुनौतीपूर्ण है मांसपेशियों और उन्हें अनुकूलित करने और मजबूत करने के लिए मजबूर करता है।
- **प्रगतिशील अधिभार सिद्धांत** – लाभ प्राप्त करना जारी रखने के लिए, भार प्रशिक्षण गतिविधियों को यथार्थ रूप से करने की आवश्यकता है।
- **रिकवरी** – मांसपेशियों को कसरत के बाद मरम्मत और अनुकूलित करने के लिए समय चाहिए।
- जहां आपके लिए एक और दोहराव करना कठिन हो। उद्देश्य एक उचित वजन या प्रतिरोधी बल का उपयोग करना है अच्छी तकनीक बनाए रखते हुए आपको चुनौती देते हैं। इसके अलावा, प्रशिक्षण चर में नियमित समायोजन, जैसे कि आवृत्ति, अवधि, प्रत्येक मांसपेशी समूह के लिए व्यायाम, प्रत्येक मांसपेशी समूह के लिए व्यायाम की संख्या, सेट और दोहराव, मदद करते हैं सुनिश्चित करें कि आप प्रगति करते हैं और सुधार करते हैं।

भार प्रशिक्षण का स्वास्थ्य पर प्रभाव

- **मांसपेशियों के वजन और मांसपेशियों में सुधार** – अपने जोड़ों को चोट से बचाने के लिए।
- **वजन प्रबंधन और मांसपेशी-से-वसा अनुपात में वृद्धि** – जैसे-जैसे आप मांसपेशी प्राप्त करते हैं आपका शरीर आराम करने पर अधिक कैलोरी जलाता है • वृद्ध लोगों में संज्ञानात्मक गिरावट को कम करने या रोकने में मदद कर सकता है।
- **अधिक सहनशक्ति** – जैसे-जैसे आप मजबूत होते जाते हैं, आप आसानी से थकेंगे नहीं।

भार प्रशिक्षण आपको मजबूत और फिट बनाती है।

- यह लाभ स्पष्ट है, लेकिन इसे अनदेखा नहीं किया जाना चाहिए। मांसपेशियों का वजन उन चीजों को करना आसान बनाने में महत्वपूर्ण है जो आपको दिन-प्रतिदिन के आधार पर करने की आवश्यकता होती

है, खासकर जब हम बड़े हो जाते हैं और स्वाभाविक रूप से मांसपेशियों को कम करना शुरू कर देते हैं।

- भार प्रशिक्षण को रेजिस्टेंस ट्रेनिंग भी कहा जाता है क्योंकि इसमें आपकी मांसपेशियों को एक प्रतिरोधी बल के खिलाफ अनुबंधित करके मजबूत और टोनिंग करना शामिल है। प्रतिरोध प्रशिक्षण दो प्रकार के होते हैं।
- आइसोमेट्रिक प्रतिरोध में आपकी मांसपेशियों को एक स्थिर वस्तु के खिलाफ अनुबंधित करना शामिल है।
- आइसोटोनिक वेट ट्रेनिंग में वेट लिफ्टिंग की तरह गति की एक श्रृंखला के माध्यम से अपनी मांसपेशियों को सिकोड़ना शामिल है।
- भार प्रशिक्षण हड्डी के स्वास्थ्य और मांसपेशियों की रक्षा करता है।
- लगभग 20–25 वर्ष की आयु में हम प्रति वर्ष 3 से 5 प्रतिशत दुबली मांसपेशियों को खोने लगते हैं। उच्च तीव्रता प्रतिरोध और प्रभाव प्रशिक्षण के सप्ताह में दो बार 40 मिनट कार्यात्मक प्रदर्शन, साथ ही हड्डी घनत्व, संरचना और वजन में सुधार करने के लिए दिखाया गया था।
- भार प्रशिक्षण आपको बेहतर बॉडी मैकेनिक्स विकसित करने में मदद करती है।
- भार प्रशिक्षण से आपके संतुलन, समन्वय और मुद्रा को भी लाभ होता है। वृद्ध लोग जो खराब शारीरिक कार्यप्रणाली के कारण गिरने और बहुत अधिक नुकसान होने के उच्च जोखिम में हैं, वजन प्रशिक्षण ने शक्ति-प्रशिक्षण अभ्यास नहीं करने वाले व्यक्तियों की तुलना में 30 प्रतिशत तक गिरने का जोखिम कम कर दिया है। संतुलन उन मांसपेशियों के वजन पर निर्भर करता है जो आपको अपने पैरों पर रखती हैं, वे मांसपेशियां जितनी मजबूत होंगी, आपका संतुलन उतना ही बेहतर होगा।
- भार प्रशिक्षण ऊर्जा के स्तर को बढ़ाती है और आपके मूड को बेहतर बनाती है।
- भार प्रशिक्षण आपके एंडोर्फिन (मस्तिष्क द्वारा उत्पादित प्राकृतिक ओपियोइड्स) के स्तर को बढ़ाएगा, जो ऊर्जा के स्तर को बढ़ाता है और मूड में सुधार करता है। वेट ट्रेनिंग आपको बेहतर नींद में मदद कर सकती है।
- भार प्रशिक्षण से अधिक कैलोरी बर्न होती है।
- भार प्रशिक्षण आपके चयापचय को बढ़ावा देने में मदद करता है (जिस दर पर आपका आराम करने वाला शरीर पूरे दिन कैलोरी जलता है)। लेकिन वजन या प्रतिरोध प्रशिक्षण आपके कसरत के दौरान और बाद में आपके कैलोरी बर्न को बढ़ावा देने में मदद कर सकता है।
- आप भार प्रशिक्षण के दौरान कैलोरी बर्न करते हैं, और आपका शरीर वेट ट्रेनिंग के बाद भी कैलोरी बर्न करना जारी रखता है जैसा कि आप बाद में करते हैं। इसका मतलब है कि वर्कआउट के दौरान अधिक कैलोरी बर्न होती है, और वर्कआउट के बाद अधिक कैलोरी बर्न होती है, जबकि आपका शरीर आराम की स्थिति में आ जाता है।

- वजन के साथ प्रशिक्षण करते समय, आपके दो सेट आपके द्वारा उठाए जा सकने वाले अधिकतम वजन के 60–80 प्रतिशत के 10–15 दोहराव होने चाहिए।
- मजबूत मांसपेशियां चोटों को रोक सकती हैं।
- भार प्रशिक्षण आपके शरीर को टोन, लिफ्ट, फर्म और शेप देने में मदद करती है।
- मजबूत मांसपेशियां आपकी दैनिक गतिविधियों में मदद कर सकती हैं, जैसे कि शॉपिंग बैग उठाना, फर्नीचर को हिलाना, उठाना।

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51. योग और खेल मनोविज्ञान

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डॉ. बंदिता सतपथी

सारांश

योग अभ्यास का उद्देश्य सभी प्रकार के दुःखों से आत्यंतिक निवृत्ति प्राप्त करना है। इससे प्रत्येक व्यक्ति जीवन में पूर्ण स्वतंत्रता, स्वस्थ जीवन, प्रसन्नता एवं सामंजस्य का अनुभव प्राप्त कर सकता है। महर्षी पतंजली अनुसार योग में विभिन्न प्रकार की प्रक्रियाओं का सम्मिलन है, जैसे यम, नियम, आसन, प्राणायाम, प्रत्याहार, ध्यान, धारणा, समाधि। इसके माध्यम से मनुष्य शरीर एवं मन के बीच सामंजस्य स्थापित कर व्यक्तित्व का विकास, मनोविकास तथा सर्वांगीण विकास प्राप्त करता है।

खेलों को शरीर के विकास के लिए महत्वपूर्ण माना जाता है और मनोविज्ञान का संबंध मनुष्य के शरीर और मन के विकास से होता है। व्यवहार, मनोविज्ञान की विषयवस्तु है। मनोविज्ञान व्यक्तित्व और खेल, खेल के प्रती दृष्टीकोन, खेल में आक्रमकता, सामाजिक कारक उत्तेजना और चिंता, प्रेरणा और कौशल अधिग्रहण का मनोविज्ञान खिलाड़ीयों के लिये उपयुक्त है। खेल मनोविज्ञान वह क्षेत्र है जो खिलाड़ी के वास्तविकता, प्रदर्शन के सिद्धान्तों को सीखना एवं मानव व्यवहार को खेल के मैदान में लागू करने का प्रयास करता है। खेल मनोविज्ञान खिलाड़ीयों का सर्वांगीण विकास में लाभदायक है। खेल मनोवैज्ञानिक द्वारा खिलाड़ीयों के व्यवहार को समझा जाता है। खिलाड़ीयों के व्यवहार के माध्यम से ही खिलाड़ीयों को किसी खेल के प्रति प्रेरित करना आसान हो जाता है और उन खिलाड़ीयों के व्यवहार, उनकी क्षमताएं, अधिकार, अभिज्ञ आदि को विशेष रूप से समझ में आ जाती है।

मुख्य बिंदू :- योग, योग का खेल में महत्त्व, खेल मनोविज्ञान का महत्त्व, मानसिक-स्वास्थ्य

प्रस्तावना

योग अत्यंत सूक्ष्म विज्ञान पर आधारित ज्ञान है, जो मन और शरीर के बीच सामंजस्य बैठाने का कार्य करता है। यह स्वस्थ जीवन जीने की कला एवं विज्ञान है। 'योग' का प्रयोग आंतरिक विज्ञान के रूप में भी किया जाता है, जो विभिन्न प्रकार की प्रक्रियाओं का सम्मिलन है। इसके माध्यम से मनुष्य शरीर एवं मन के बीच सामंजस्य स्थापित कर आत्मसाक्षात्कार को प्राप्त करता है। संस्कृत वाङमय के अनुसार योग शब्द युज् धातु से घञ् प्रत्यय लगाने से निष्पन्न होता है जो पाणिनीय व्याकरण के अनुसार तीन अर्थों में पाया जाता है। 1. युज् समाधौ = समाधि 2. युजिर योगे= जोड 3. युज् संयमने= सामंजस्य। यौगिक ग्रंथों के अनुसार, योग का अभ्यास व्यक्तिगत चेतनता को सार्वभौमिक चेतनता के साथ एकाकार कर देता है। (कुमारी, 2016)

मानव का संपूर्ण जीवन ही विभिन्न प्रकार की क्रियाओं से पूर्ण है। मनोरंजन क्रियाओं को क्रीडा का नाम दिया गया है। देश, काल, संस्कृति एवं संप्रदाय के आधार पर क्रीडा के स्वरूप परिवर्तित होते रहे हैं। क्रीडा का वर्गीकरण व्यक्तिगत क्रीडाएँ, दलगत क्रीडाएँ जैसे की, कुश्ती, तीरंदाजी, शतरंज आदि।

खेल मनोविज्ञान एक सामाजिक मानव विज्ञान भी है। मनोविज्ञान संबंधी व्यवहार और कार्यों का वैज्ञानिक अध्ययन है। मैदान में दर्शकों के द्वारा अनगिनत आशाओं के कारण खिलाड़ीयों के पराजित होने पर उनमें ग्लानी की भावना जन्म लेने लगती है। कई बार यह भावना उनके मस्तिष्क को बुरी तरह प्रभावित भी करती है। उनमें अनेक प्रकार के तणाव तथा दबाव होते हैं। खेल मनोविज्ञान ऐसे स्थिति में तणाव एवं मनोधैर्य बढ़ाने में उपयुक्त साबित होता है।

साहित्य का अवलोकन

- मार्च २०२१: जरनल ऑफ साइंस इन स्पोर्ट अंड एक्सरसाइज
- खेल एवं योग (राजस्थान लोक सेवा आयोग (RAS / RTS)
- मनोदैहिक अनिद्रादि चित्तदोष एवं हठयोग, डॉ. हरीश कुमारी
- शारीरिक शिक्षा एवं क्रीडा मनोविज्ञान
- <http://www.exoticindiaart.com> (खेल मनोविज्ञान)

अनुसंधान पद्धति :- उपयुक्त शोधपत्र के लिये विश्लेषणात्मक शोध विधि का प्रयोग किया गया है।

परिणाम

खिलाडीयों की मनोदशा के संबंधित कारण

विभिन्न प्रकार के खेल में विभिन्न प्रकार की संभावनाएँ होती हैं, वह खिलाडीयों के अनुभव तथा निरंतर प्रयास, प्रकृति पर निर्भर होता है। कभी-कभी परिस्थिति निरूप खिलाडी अपना स्वाभाविक प्रदर्शन नहीं कर पाते, उसके लिये बहुतसे कारण होते हैं जैसे की – चिंता और भय का बढ़ना, वातावरण से मिलाप न कर पाना, खेलते समय मनोदशा में अचानक बदलाव, मैदान में उपस्थित प्रेक्षकों द्वारा हल्ला-गुल्ला, एकाग्रता का अभाव होना, निरंतर खेल में अपयश, असफलता का शिकार होकर अपनी क्षमता पर संदेह होना। प्रतिकूल परिस्थिति में तनाव में आकर छोटी-छोटी गलतियाँ करना, असफलता का डर बढ़ जाना, उत्तेजना और आक्रमकता का बढ़ना आदि अनेक कारण खिलाडीयों की मनोदशा के लिये जिम्मेदार होते हैं। (प्रेमचंद त्रिपाठी, 2010)

योग से होने वाले परिणाम

खिलाडी के लिये योग एक अभिन्न अंग है। विभिन्न खेल के खिलाडीयों के शारीरिक और मानसिक स्वास्थ्य के लिए योग की विभिन्न तकनिके अत्यंत उपयोगी हैं। खेल के दौरान विभिन्न प्रकार के मांसपेशीय खिन्चाव से बचने एवं उनकी खेल क्षमता तथा प्रस्तुती की अभिवृद्धि के लिये योग विज्ञान की विभिन्न विधियों का प्रयोग किया जा रहा है। देश-विदेश में अनेको खेल प्रशिक्षण के

लिये संबंधित खेल विशेषज्ञ के साथ एक योग प्रशिक्षक की आवश्यकता भी महसूस की जा रही है। तणाव, असंतोष जैसे मानसिक दबावों से ग्रसित होने की संभावना अधिक बनी रहती है, ऐसे अवस्था में योग विद्या प्रभावशाली सिद्ध होती है। अष्टांग योग के सभी अंग न केवल शरीर को स्वास्थ्य और लचीला बनता है अपितु उनमें अनुशासन, मानसिक सक्रियता भी लाता है। नियमित योगाभ्यास से खिलाड़ीओं की एकाग्रता बढ़ती है एवं सृजनात्मक प्रेरणा प्राप्त होती है जो उनमें जन्मजात छिपी होती है।

चर्चा

शारीरिक महत्त्व :- योगासनों के माध्यम से शारीरिक शक्तियों का विकास किया जाता है। शरीर को धष्ट-पुष्ट बनाने, उसके अंग-प्रत्यांगो की कार्यक्षमता में वृद्धि करने तथा उसे निरोग बनाये रखकर ओजस्वी एवं कांतीमय बनाने में योग साधना का कोई सानी नहीं है। शरीर में विभिन्न द्रव्यों का निर्माण करने वाली ग्रंथियों को ठीक प्रकार से नियंत्रित कर उन्हें पर्याप्त रूप से सजग एवं क्रियाशील बनाये रखने में योग के द्वारा पूर्ण सहायता मिलती है।

योगासनों के नियमित अभ्यास द्वारा शरीर के विभिन्न जोड़ तथा मेरुदंड स्वस्थ, के अंगो तथा प्रणालियों के बीच स्वस्थ संतुलन भी कायम होता है। चुल्लिका ग्रंथी की तृतीया दूर होती है इन्सुलिन का स्त्राव व्यवस्थित होता है तथा विभिन्न हार्मोन के स्त्रावो में संतुलन आता है। शरीर की आंतरिक अवयवो, रक्त नलिकाओ – कोशिकाओं की सफाई से लेकर श्वसन तथा पचन तंत्र के अंगो की आंतरिक सफाई तथा विजातीय द्रव्यों को बहार निकालने में योग से बहुत सहायता मिलती है।

विभिन्न यौगिक अभ्यासों का प्रभाव शरीर भर, फेफड़ों की क्रियाशीलता, हृदय की गति, श्वसन दर, स्थिरता, स्वचालित क्रियाशीलता पर सकारात्मक प्रभाव पड़ता है। योग के विभिन्न अंगो जैसे प्राणायाम आदि बंध, मुद्राये क्रियाये आदी भी शारीरिक विकास में महत्वपूर्ण योगदान देती है। इससे शरीर में अतीव स्फूर्ति आ जाती है और जिसके परी स्वरूप बहुमुखी विकास का द्वार खुलने लगता है। योग साधना के द्वारा शरीर की रोगनाशक और किटाणुओं से लड़ने की क्षमता में वृद्धि होती है। खिलाडोओं को रोगों, तथा चोटों से मुक्त करना अथवा उनसे बचे रहने का मार्गदर्शन करना योगविद्या की महान देन है।

मानसिक महत्त्व :- आस्थाएँ, मान्यताएँ, उद्देश्य, और लक्ष्य सही हो तो न केवल जीवन के सामर्थ्य का सही नियोजन संभव है बल्की मानसिक समस्याओं के कारण जो आक्रमकता, तणाव, चिंता एवं द्वंद पनपते है, इससे प्राण का क्षय होता है। योग के द्वारा शारीरिक ही नहीं बल्की उत्तम मानसिक स्वास्थ्य को भी प्राप्त करने में पुरी-पुरी सहायता मिलती है। मानसिक शक्तियों के समुचित पोषण और विकास के लिये उपयुक्त चेतना और शक्ति भी प्राप्त होती है।

योग की विविध हठयौगिक क्रियाये आसन, प्राणायाम आदी शरीर के लिये तो स्पष्ट रूप से हितकार है ही इनका मानसिक स्वास्थ्य पर भी अनुकूल प्रभाव पड़ता है। अनुसंधानो से स्पष्ट हो चुका है की, योग के अभ्यास से मानसिक तणाव कम होता है तथा मनुष्य में मनोदैहिक सामंजस्य की वृद्धि होती है। योगाभ्यास से व्यक्ती के अंदर जीवनी शक्ति का विकास, मन:शांती, आक्रमकता से मुक्तता एवं तणाव से मुक्ती मिलती है। ध्यान व प्राणायाम के अभ्यास का प्रभाव भावनात्मक स्थिरता में वृद्धि व तणाव में कमी के रूप में होता है।

योगाभ्यास शारीरिक सजगता मनोरोगों को दूर करने एवं संवेदनशीलता को बढ़ाने का महत्वपूर्ण साधन है। योग द्वारा चित्त वृत्तियों और मन की चंचलता पर अंकुश लगाने की शक्ति मिलती है। एकाग्र चित्त एवं ध्यान की स्थिरता मानसिक शक्तियों के विकास के लिये उपयुक्त पृष्ठभूमि तय्यार करती है।

व्यक्तित्व विकास में महत्त्व :- योग द्वारा जीवन का सर्वांगीण विकास करना संभव है। सर्वांगीण विकास से तात्पर्य- शारीरिक, मानसिक, बौद्धिक, आध्यात्मिक, नैतिक विकास से है। इसका पर्यवसान योग द्वारा आत्मदर्शन तथा ब्रह्म-साक्षात्कार पूर्वक मोक्ष की सिद्धि होने पर होता है। योग विद्या भारत वर्ष की अमूल्य संपत्ति रही है जो प्राचीनकाल के ऋषि-मुनियों की एक महान देन है। शारीरिक एवं मानसिक निरोगता एवं स्वस्थता, या कुविचारों और कुसंस्कारों की रस्सियों से बांधा हुआ मन एवं इंद्रियों की जागृती, अंतर्निहित प्रचंड शक्तियों की जागृती, श्रेष्ठ आचरण, भलाई का जीवन, ज्ञानपूर्ण दृष्टीकोन, मनुष्यता का पालन, बुराई से बचकर अच्छाई की अवलंबन करना, स्वार्थ की ओर से परमार्थ की ओर चालना, प्राणियों के साथ प्रेम और सेवा का व्यवहार करना, अन्तःकरण में निर्मलता एवं पवित्रता का आविर्भाव होना आदी, योग साधना की प्रत्यक्ष फलश्रुतिया है। (डॉ. अनुजा रावत, २०१८)

योग का खेल में महत्त्व

योग का खेल में अनन्य साधारण महत्त्व है। महर्षी पतंजली ने अष्टांग योग के बहिरंग में यम, नियम से सुरुवात करके नैतिक मूल्यों में तथा अंतरंग योग में धारणा, ध्यान, समाधि यह अंग के द्वारा अन्तःकरण में निर्मलता एवं पवित्रता लाने का भाव बताया है।

अहिंसासत्यास्तेयब्रह्मचर्यापरिग्रहा यमाः॥ (गोयन्दका, स. २०७३)

1. अहिंसा – अहिंसा के द्वारा शारीरिक एवं मानसिक दुखापत दूर की जाती है।
मन, वाणी और शरीर से किसी प्राणी को किसी प्रकारसे भी दुःख न देना 'अहिंसा' है।
2. सत्य – सत्य को धारण करने से मनुष्य में विलक्षण सामर्थ्य की प्राप्ति होती है। इंद्रिय और मनसे प्रत्यक्ष देखकर, सुनकर या अनुमान करके जैसा अनुभव किया हो, ठीक वैसा ही भाव प्रकट करने के लिये प्रिय और हितकर वचन बोलना 'सत्य' है।
3. अस्त्येय – किसी भी चीज की चोरी न करना। दुसरे की वस्तु को छल से, अन्यायपूर्वक अपना बना लेना चोरी है।
4. ब्रह्मचर्य – मन, वाणी, और शरीर से होनेवाले सभी प्रकार के मैथूनों का त्याग करना। इससे उत्साह तथा फुर्तीलापण की शरीर में वृद्धि होती है।
5. अपरिग्रह – सामर्थ्य से अधिक अभिलाषा न करना। अपने स्वार्थ के लिये ममतापूर्वक धन, संपत्ति और भोग-सामग्री का संचय करना 'परिग्रह' है तथा इसके अभाव का नाम 'अपरिग्रह' है।

(गोयन्दका, स. ०७३)

कभी-कभी खिलाडी मैदान में अधिक आक्रमक तथा उत्तेजनापूर्वक बर्ताव करते हैं। सहायक आक्रमकता एक ऐसा व्यवहार है जिसमें खिलाडी का इरादा किसी को चोट पहुंचाना नहीं होता है बल्कि वह दुसरो का ध्यान, प्रशंसा या विजय प्राप्त करना चाहता है। मुखर व्यवहार के दौरान खिलाडीयो का ध्यान आकर्षित करने के लिये तथा विरोधी पक्ष के खिलाडीयो की एकाग्रता भंग करने के लिये मौखिक बल का प्रयोग करता है। स्वाभाविक प्रवृत्ति –कई बार सहज प्रवृत्ति भी हो सकती है। सामान्यतया इसे स्व-रक्षा के लिये प्रयोग किया जाता है। कुछ लोगो में सहज प्रवृत्ति होती है। ऐसे लोग अन्य लोगो को शारीरिक या मानसिक परदेशानी में आनंद का अनुभव है। शरीर क्रियात्मक तंत्र- शारीरिक क्रियात्मक तंत्र के कारण भी पिडीत की स्थिति बन सकती है। कभी-कभी बाहरी तत्व मस्तिष्क के हिस्से को अत्याधिक सक्रीय कर देते हैं जो संवेगो का अनुभव करता है। ऐसे जो संवेगो का अनुभव करता है ऐसे में व्यक्ति अत्यंत संवेदनशील आक्रमक हो जाता है। कुंठा – किसी कुंठा के कारण भी व्यक्ति आक्रमक हो सकता है। यदि किसी व्यक्ति को उसके मूल अधिकारों से अपमानित कर दिया जाता है या उसे अपने लक्ष्य तक नहीं पहुंचाया जाता है तो उसके मन में कुंठा हो जाती है। अपनी कुंठा का शमन वह आक्रमक व्यवहार या हिंसा द्वारा करता है। (खेल एवं योग)

मानसिक रूप से स्वस्थ व्यक्ति में तीन विशेषताएँ होती हैं

1. वह स्वयं के विषय में सांत्वनादायक होता है, वह स्वयं को सुरक्षित एवं पूर्ण पर्याप्त महसूस करता है, वह अपनी योग्यता के प्रति कम समझना या अधिक मुल्यांकन नहीं रहता है और वह आत्म-सम्मानी होता है।
2. दुसरो के प्रति सही सोच एवं विश्वास रखता है तथा उनके प्रती प्रेमभाव रखता है।
3. उनकी मित्रता अथवा मैत्रीभाव स्थायी होता है तथा अपने सहयोगी और पडोसियो के प्रति उत्तरदायीत्व का भाव रखते हैं।
4. किसी भी प्रकार की समस्या का समाधान करने के योग्य होते हैं। वे समय के बारे में सोच सकते हैं तथा निर्णय लेने की क्षमता रखते हैं स्वयं के प्रति उनका उद्देश्य आदर्शपूर्ण होता है। वे भय, क्रोध, और अपराध की भावना के प्रति निडर होते हैं।

(बी.एन.बर्वे,2012)

शारीरिक एवं मानसिक स्वास्थ्य

समदोषः समाग्निश्चः समधातु मलक्रियः ।

प्रसनात्मेन्द्रियमनाः स्वस्थ इत्यभिधीयते ॥ (अंबिकाक्ष)

शरीर, मन, और आत्मा को सम्मिलित करते हुए आचार्य सुश्रुत द्वारा स्वास्थ्य की परिभाषा बताई गई है। जिस व्यक्ति के वाट, पित्त, कफ तीनो दोष सम अवस्था में हैं, सभी तत्व, जैसे की, पृथ्वी, जल, अग्नि, वायु और आकाश, सप्त धातुओं में रस, रक्त, मांस, मेद, अस्थि, मज्जा और शुक्र की सात अग्नि और एक जठराग्नि समान हो, रसरक्तादि धातुएं समदशा में हो, मल-मूत्र विसर्जन की सारी क्रियायें ठीक हो रही हो और आत्मा, मन एवं इंद्रियाँ प्रसन्न अवस्था में हो।

नरो हिताहारविहार सेवी, समीक्ष्यकारी विषयेश्च सक्तः |

दाता समः सत्यपरः क्षमावानामोपसेवी च भवत्यरोगः || (डॉ.गोरखनाथ, 2012)

सात्विक मनोवृत्ति वाला व्यक्ति शारीरिक एवं मानसिक रूप से सदैव स्वस्थ रहता है | हितकारी आहार-विहार का सेवन करने वाला, विचारपूर्वक काम करनेवाला, काम, क्रोधादि विषयों में आसक्त न रहने वाल, दान देने वाला, सब प्राणियों के प्रति समभाव रखने वाला, सहनशील और आस पुरुषों की सेवा करने वाला रोग रहित आर्थात निरोग राहता है | (कुमारी, 2016)

खेल मनोविज्ञान

मनोविज्ञान 1996 में युरोपियन फेडरेशन ऑफ स्पोर्ट्स सायकोलॉजी के अनुसार खेल मनोविज्ञान खेल के मनोवैज्ञानिक आधार, प्रक्रियाओं और प्रभावों का अध्ययन है | इसलिये खेल मनोविज्ञान को व्यक्ती के सर्वांगीण विकास के लिये बहुत ही महत्वपूर्ण माना जाता है |

- रास के अनुसार- “खेल एक आनंदपूर्ण, स्वतः प्रस्फुटित रचनात्मक क्रिया है जिसमे मनुष्य पूर्णतया अभिव्यक्ति प्राप्त करता है |”
- टी.पी. नन के अनुसार – “क्रीडा या खेल रचनात्मक क्रियाओं का सुदृढ रूप है |”

(त्रिपाठी, 2010)

इस प्रकार क्रीडा या खेल व्यक्ती की समस्त आंतरिक भावनाओं एवं शक्ती के प्रदर्शन एवं रचनात्मक अभिव्यक्ति का स्वस्थ आधार है जो शारीरिक एवं मानसिक विकास के लिए लाभदायक एवं आत्माभिव्यक्ती का आधार है | खेल मनोविज्ञान, खिलाडीयों में अवसाद, चिंता दूर करने में उपयुक्त है, तथा खिलाडीयों में आत्मविश्वास बढता है | आक्रमता तथा उत्तेजना पर अंकुश लगाकर, तणाव में भी खिलाडी का प्रदर्शन उत्कृष्ट बनाने में सहायक है | आपसी एकता, टीम वर्क तथा जीत की संभावना को बढाता है |

खेल मनोविज्ञान का महत्त्व

1. खिलाडीयो के लिये भावात्मक पक्ष में सहयोग

दुनिया भर में कई प्रतियोगिताए आयोजित की जाती है और उनमें हजारों खिलाडी देश-विदेश के कोने-कोने से आते है | प्रतियोगिता में सामील होते है | इन विभिन्न खिलाडीयों को देखकर उनका प्रदर्शन देखकर खिलाडी के मन में निराशा, डर, तणाव आदी स्थिती होने लगता है और उनका भावात्मक पक्ष कमजोर होने लगता है | इसलिये यहा पर खेल मनोवैज्ञानिक द्वारा खिलाडीयों के भावात्मक पक्ष को मजबूत बनाया जा सकता है और वे खेल में अच्छा प्रदर्शन कर सकते है |

2. खिलाडीयो के व्यवहार

खेल मनोवैज्ञानिक द्वारा खिलाडीयो के व्यवहार को समझा जाता है। खिलाडीयो के व्यवहार के माध्यम से ही खिलाडीयो को किसी खेल के प्रति प्रेरित करना आसान हो जाता है और उन खिलाडीयो के व्यवहार, उनकी क्षमताएं, अधिकार, अभिज्ञ आदि को विशेष रूप से समझ में आ जाती है, तो वह खिलाडीयो को इसप्रकार अच्छी तरह से निर्देशित करने में सक्षम हो जाता है।

3. गति कौशल को सीखना - प्रत्येक व्यक्ति अपनी नजर और शारीरिक क्षमता के अनुसार खेल का चुनाव कर उसमें निपुणता लाने के प्रयास में प्रतिदिन प्रयत्नशील रहता है। यहाँ गति कौशल को सिखाने की सहायता तथा खेल के चुनाव में खेल मनोवैज्ञानिक के बहुत ही महत्वपूर्ण स्थान होते हैं।

3. शरीर कि क्रियात्मक क्षमता में विकास

शरीर कि क्रियात्मक क्षमता में विकास में खेल मनोवैज्ञानिक का अत्यंत महत्वपूर्ण स्थान होता है। खेल मनोवैज्ञान ही व्यक्ति की लचक, गति, शक्ति और मन की शक्ति को रहने वाली शारीरिक और मानसिक रूप से खिलाडीओ को मजबूत बनाता है, ताकी वह मैचो में बेहतर प्रदर्शन कर सके।

4. भावनाओं के नियंत्रण में

खेल मनोवैज्ञानिक द्वारा खेल खेलने वाले लोगों का उनके व्यवहार का अध्ययन किया जाता है, जिससे उन्हें इतना सशक्त बना दिया जाता है, कि वह खेल खेलते समय विशेष प्रकार की भावनाओं को नियंत्रण में कर सकते हैं जैसे की क्रोध, तणाव, तणाव के डर आदि पर वह नियंत्रण द्वारा खिलाडी खेल में अच्छा प्रदर्शन करने में सक्षम हो जाता है। (Cadieux, मार्च २०२१)

निष्कर्ष

बाहर की क्रियाएँ (बाह्य मन) विचार, तर्क, अवयवों के स्नायुओं को गति देता है, यह मन अस्थिर तथा चंचल है। योगाभ्यास के द्वारा मनकी चंचलता, अस्थिरता पर लगाम लगता है। चित्त शांत करता है और आत्मबल की वृद्धि होती है। योग के आठ अंगों के निरंतर, श्रद्धापूर्वक अभ्यास से खिलाडीयो के अंदर आत्मविश्वास जागृत होता है। योग के यम, नियम अंगों के पालन से खिलाडीयो में अनुशासन तथा शरीर में ऊर्जा के स्रोत में वृद्धि होती है। खिलाडीयो शारीरिक, मानसिक तथा भावनिक मजबूती आती है। प्रतिकूल परिस्थिती में तणाव प्रबंधन में योग अहम भूमिका निभाता है। ध्यान का अभ्यास खिलाडी की एकाग्रता बढ़ाता है तथा खेल में गति और स्फूर्ति, ऊर्जा का प्रसंगावधान के अनुसार उपयोग कर खेल में बेहतर प्रदर्शन करने में होता है। खेल मनोविज्ञान, खिलाडीयो में अवसाद, चिंता दूर करने में उपयुक्त है, तथा खिलाडीयो में आत्मविश्वास बढ़ता है। आक्रमता तथा उत्तेजना पर अंकुश लगाकर, तणाव में भी खिलाडी का प्रदर्शन उत्कृष्ट बनाने में सहायक है। आपसी एकता, टीम वर्क तथा जीत की संभावना को बढ़ाता है। योग और खेलमनोविज्ञान दोनों के द्वारा खिलाडीयो का सर्वांगीण विकास संभव है। संपूर्ण स्वास्थ्य और मानसिक स्वास्थ्य के प्रती खिलाडी यो ने ध्यान देना आवश्यक है। एक स्पष्ट और स्वस्थ दिमाग वाला खिलाडी हमेशा अपने प्रतिस्पर्धी से बेहतर प्रदर्शन करता है। खेल मनोविज्ञान खिलाडी के बेहतर प्रदर्शन करने में मददगार साबित होता है।

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52. योग और खेल मनोविज्ञान

बर्षा जांबुवंत मासुरकर

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डॉ. बन्दिता शतपथी

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सारांश

योग हमारे जीवन का अत्यावश्यक अंग है | योग मानवता की प्राचीन पुंजी है जो मानव द्वारा संग्रहित सबसे बहुमूल्य खजाना है। मनुष्य जीवन के तीन महत्त्वपूर्ण अंग हैं - शरीर, मन एवं आत्मा। अपने शरीर, मन पर नियंत्रण और अपनी अपनी सत्ता को पहचानना जीवन में महत्त्वपूर्ण है | शारीरिक, मानसिक और अध्यात्मिक तीन अवस्था का संतुलन ही योग है। योग खिलाड़ी को स्वयं की कमियोंको पहचान कर मानव शरीर को स्वस्थ, निरोगी बनाकर मनुष्य को बाहरी तणावों को दूर कर शारीरिक विकास को मध्यबिंदू की ओर केंद्रित करता है | योग, जीवन का विज्ञान और कला दोनों है | इसका प्रयोजन ही मानव के शरीर और मनका पूर्ण विकास है इसलिये योग में कुछ अनुशासन का समावेश किया गया है ताकी सामान्य व्यक्तित्व का बहुमुखी विकास संभव हो सके | खेलकूद का हमारे जीवन में स्वास्थ्य के दृष्टिकोण से बहुत महत्व है। खेल क्षेत्र में खिलाड़ियों के लिए योग एक अभिन्न अंग है | विभिन्न खेल के खिलाड़ियों के शारीरिक और मानसिक स्वास्थ्य (मनोविज्ञान)के लिए योग अत्यंत उपयोगी है | खेल के दौरान विभिन्न प्रकार के मांसपेशीय खिंचाओं से बचने के लिए एवं उनकी खेल क्षमता तथा प्रस्तुती की अभिवृद्धी के लिए योग विज्ञान की विभिन्न विधियों का प्रयोग किया जा रहा है |

मुख्य बिंदु :-योग, खेल, खिलाड़ी का मनोविज्ञान, चित्त, , खिलाड़ी कि सकारात्मक एवं नकारात्मक भावना, योग का महत्व.

प्रस्तावना

‘खेल मनोविज्ञान, खेल के मनोवैज्ञानिक आधार, प्रक्रियाओं और प्रभावों का अध्ययन है।’ (Jarvis, 2006)

प्रतियोगिता, मनोरंजन, शिक्षा या स्वास्थ्य की। मनोविज्ञान को अक्सर 'दिमाग और व्यवहार के विज्ञान' के रूप में परिभाषित किया जाता है। खेल मनोविज्ञान में पहला अध्ययन उन्नीसवीं सदी के अंत में हुआ। नॉर्मन ट्रिपलेट (1898) ने वह प्रदर्शन किया जिसे अक्सर सामाजिक मनोविज्ञान के साथ- साथ खेल मनोविज्ञान में पहले प्रयोग के रूप में उद्धृत किया जाता है। 1925 में, कोलमैन ग्रिफ़िथ ने इलिनोइस विश्वविद्यालय में एथलेटिक अनुसंधान प्रयोगशाला की स्थापना की। ग्रिफ़िथ, जिन्होंने एक विश्वविद्यालय पाठ्यक्रम की स्थापना करके, दो प्रमुख पाठ्यपुस्तकों को प्रकाशित करके और पेशेवर खेल टीमों के सलाहकार के रूप में कार्य करके खेल मनोविज्ञान को मानचित्र पर रखा। ग्रिफ़िथ को 'खेल मनोविज्ञान का जनक' कहा जाता है।

1960 के मेलबर्न ओलंपिक के दौरान, पूर्वी यूरोपीय टीमों ने खेल मनोवैज्ञानिकों (क्रेमर एंड स्कली, 1994) को नियुक्त किया था। निश्चित रूप से, हम जानते हैं कि, 1970 के दशक के प्रारंभ तक, पूर्वी जर्मन और अंतरराष्ट्रीय आयोजनों में एथलेटिक प्रदर्शन को बढ़ाने के लिए सोवियत टीमों नियमित रूप से खेल मनोवैज्ञानिकों को नियुक्त कर रही थीं। 1986 में, अमेरिकन साइकोलॉजिकल एसोसिएशन ने आधिकारिक तौर पर खेल मनोविज्ञान को मनोविज्ञान की एक शाखा के रूप में मान्यता दी और 1993 में ब्रिटिश साइकोलॉजिकल सोसायटी ने एक खेल और व्यायाम मनोविज्ञान अनुभाग का गठन किया, द यूरोपियन फेडरेशन ऑफ स्पोर्ट साइकोलॉजी (1996) खेल मनोवैज्ञानिकों के लिए तीन परस्पर संबंधित कार्यों को मान्यता देता है।

१. अनुसंधान; खेल के मनोविज्ञान के सभी पहलुओं की जांच करना जैसे दोनों सैद्धांतिक और व्यावहारिक।
२. शिक्षा; खेल के बारे में छात्रों, अधिकारियों और एथलीटों को पढ़ाना।
३. मनोविज्ञान अनुप्रयोग :- मनोवैज्ञानिक समस्या का मूल्यांकन और हस्तक्षेप-खेल से जुड़ा हुआ है। इसमें पूरी टीम से परामर्श करना या व्यक्तियों की काउंसलिंग शामिल हो सकती है।

शरीर को तंदुरुस्त बनाने के लिए योग को अपनाना अच्छा विचार होता है। बढ़ते समय के साथ-साथ खेलकूद को मनोरंजन के साधन के साथ-साथ एक पेशे के रूप में भी अपनाया जाने लगा है। अधिक से अधिक लोग इसमें रुचि दिखाने लगे हैं। खेलकूद में हार-जीत तो लगी रहती है लेकिन दर्शक अपने पसंदीदा खिलाड़ियों से हमेशा जीत की उम्मीद लगाए रहते हैं। अतः पराजय मिलने पर उनमें आक्रोश की भावना जन्म लेती है, जो खिलाड़ियों के मानसिक तनाव को बढ़ाती है। जिसके कारण उनके स्वास्थ्य पर असर भी पड़ता है और कई बार यह भावनाएं घातक भी साबित होती हैं। इससे निपटने का सबसे अच्छा तरीका यह है कि खिलाड़ी स्वयं को योग को ओर प्रेरित करें और अपनी गलतियों से सीख उसमें सुधार करें। योग वह विज्ञान है जो जीव, चेतना और पदार्थ तीनों को साथ में लेकर चलता है। अतः आज के अधिनिक युग में योग, विज्ञान और अध्यात्म के बीच सेतू का कार्य कर रहा है।

खेल प्रत्येक मानव के जीवन के स्वास्थ्य के लिए बहुत जरूरी है जो उन्हें फिट रखने में सहायक होता है और शारीरिक ताकत को बनाए रखता है। जीवन के प्रत्येक चरण में इसका बहुत महत्व है। यह मनुष्य को शारीरिक और मानसिक दोनों तरीकों से स्वस्थ रखता है। शरीर में चुस्ती और फुर्ती बनाने के साथ-साथ शारीरिक क्षमता को बढ़ाता है। यह कहने में कोई संदेह नहीं है कि स्वस्थ जीवनशैली के लिए खेल-कूद की एक महत्वपूर्ण भूमिका है। हर किसी को इसके प्रति जागरूक होना चाहिए। वर्तमान समय में, हर कोई खास कर के युवा वर्ग अपने स्वास्थ्य को लेकर जागरूक होता दिखाई दे रहा है। इसके लिए लोग अनेक प्रकार की प्रणालियों को अपनाते हैं जिनमें से स्पोर्ट्स एक लोकप्रिय गतिविधि है। हालांकि पुराने ज़माने में स्पोर्ट्स (खेल-कूद) को सिर्फ मनोरंजन का साधन माना जाता था लेकिन आज देखा जाए तो यह मनोरंजन के साथ-साथ लोगों के लिए एक पेशा भी बन गई है। युवा पीढ़ी इसे आजीविका के लिए भी अपना रही है। क्रिकेट, फुटबॉल, हॉकी, टेनिस आदि खेलों में अपनी दिलचस्पी दिखा रहे हैं और इसे अपने पेशे के रूप में अपना रहे हैं। सिर्फ खिलाड़ी ही नहीं बल्कि आम लोगों भी इन खेल-कूद में अपनी रुचि दिखाते हैं। आज विश्व स्तरों पर यह स्पोर्ट्स आयोजित किए जाते हैं और अपने राष्ट्र को प्रदर्शित करते हैं, जिन्हें देखने वालों की संख्या दिन प्रतिदिन बढ़ती जा रही है। लोग

अच्छे खिलाड़ियों को अपना प्रेरणास्रोत (रोल-मॉडल) मानने लगते हैं और उनसे जीत की आशाएं रखते हैं। हालांकि हर खिलाड़ी भी जीत की आशा के साथ ही खेलता है और दर्शकों की उम्मीदों पर खरा उतरने का पूरा प्रयास करता है। लेकिन वह किसी कारणवश अच्छा प्रदर्शन न कर पाए और हार गए। इसका खिलाड़ियों के मस्तिष्क पर कैसा असर होता है यह भी विचार आवश्यक है।

साहित्य का अवलोकन

१. 'Sport psychology, A student handbook,' Matt Jarvis द्वारा लिखित इस किताब में खेल मनोवैज्ञान कि परिभाषा, व्यक्ती चित्रण, विकास, तणाव, प्रेरणा साथ ही सामाजिक मुद्दों पर चर्चा कि गई है।
२. "खेल एवं योग," राजस्थान लोकसेवा आयोग RAS /RTS स्वर संचालित इस पुस्तक मे खेलोन्के विभिन्न प्रकारोंको वर्णीत किया है।
३. "पातंजल योगदर्शनम," सतीश आर्य द्वारा लिखित इस ग्रंथ मे महर्षी पतंजली वर्णीत पातंजल योगदर्शन पर व्यासभाष्य एवं ऋषी भोज द्वारा किये गये भाष्य कि समीक्षा प्राप्त होती है।
४. "भगवद्गीता" श्री भक्तीवेदांत प्रभू पाद द्वारा विश्लेशित यह मनोविज्ञान का सारासार खेल वर्तमान परिवेश में यथोचित उपयोग जन्य है।
५. <http://mr.reoveme.com>
६. <http://wwapa.org>sports>
७. योग आणि योगी, लेखिका डॉ. अनुजा राऊत ने इस इतब में योग के मनोविज्ञान के पक्ष को उजागर किया है।

शोध विधि

प्रस्तुत शोध पत्रिका के लिये समीक्षणात्मक एवं विश्लेषणात्मक शोध विधि का प्रयोग किया गया है।

परिणाम

खिलाड़ी अक्सर लक्ष्य उन्मुख होते हैं और अपना उत्तम प्रदर्शन करने का प्रयास करते हैं। लेकिन हर चीज में जीत और हार दोनों को स्वीकार करना पड़ता है। दर्शकों द्वारा इतनी आशाओं के कारण खिलाड़ियों के पराजित होने पर उनमें ग्लानि की भावना जन्म लेने लगती है। कई बार यह भावना उनके मस्तिष्क को बुरी तरह प्रभावित करती है। उनपर अनेक प्रकार के दबाव होते हैं। पराजय मिलने पर दर्शकों का उस विशेष खिलाड़ी के प्रति आक्रोश, उनकी इस भावना को और बढ़ा देता है। नए खिलाड़ियों में यह भावना आने की संभावना अधिक होती है। यदि निरंतर हार मिलती रहे तो उनमें हीन भावना जन्म लेती है और खिलाड़ियों की मानसिक स्थिति पर प्रभाव होकर आगे न बढ़ पाने की सोच जागृत होती है। ऐसा मनोभाव आने पर खिलाड़ियों में अवसाद (डिप्रेशन) और चिंता बढ़ जाती है। कई बार तो ऐसा भी देखा गया है कि कुछ खिलाड़ी इस कारण आत्महत्या तक कर लेते हैं जो दुख और चिंता का विषय है।

(Jarvis, 2006)

घातक भावनाओं का समाधान

खिलाड़ियों के मन से इस भावना को निकालने के लिए उन्हें चाहिए कि वे स्वयं को प्रेरित करते रहें और अपनी कमियों पर पुनर्विचार करें। अपनी गलतियों पर गौर करें और उसपर काम करें जिससे आगे वह अच्छा प्रदर्शन कर सकें। खिलाड़ियों के साथ-साथ दर्शकों को भी इस बात पर गौर अवश्य करना चाहिए कि उनका द्वेष और आक्रोश खिलाड़ियों के मस्तिष्क पर कितना गहरा प्रभाव डाल सकता है। खेल को मात्र मनोरंजन की तरह देखना चाहिए। हार और जीत दोनों ही खेल का हिस्सा होते हैं अतः इनमें समान भाव रखना चाहिए। ऐसे खेल का कोई मतलब नहीं जो किसी खिलाड़ी की मानसिक स्थिति पर प्रभाव डाले और उनमें आत्मघाती विचारों को जन्म दे। खिलाड़ियों को निरंतर स्वयं को प्रेरित करना चाहिए कि उनके मन में ऐसी घातक भावनाएं न पैदा हों। और योग द्वारा प्राप्त शक्तियों से अपनी अपूर्णता पूरी करके सामान्य से असामान्य (महान) बना जा सकता है। खिलाड़ी के लिये योग एक अभिन्न अंग है। विभिन्न खेलों के लिये भिन्न भिन्न योगाभ्यास अत्यंत उपयोगी हो सकते हैं। 'जीवन के सिद्धांत को व्यवहार में लाने कि जो कला या युक्ति है उसी को योग कहते हैं।' (राऊत, २०१८) योग जीवन को सार्थक बनाने वाले साधनों में उत्तम साधन है। आचार्य चरक 'सेंद्रियचेतनद्रव्यं निरिंद्रियचेतनं।' कहकर योग के चिकीत्सीय महत्व को बताते हैं। तत्त्वतः योगाभ्यास से एक साथ अनेक उचित (योग्य) परिणाम होते हैं। यथा- आलस्य त्याग, आत्मबलविस्तार, भय, संशय-निवारण, उत्साह वृद्धि, स्वस्थ लाभ, बौद्धिक विकास, आध्यात्मिक उन्नयन आदि। (राऊत, २०१८)

योगाभ्यास शारीरिक सजगता से आधि को दूर करने एवं संवेदनशीलता को बढ़ाने का महत्वपूर्ण साधन है। योग द्वारा चित्त कि वृत्तियों और मन कि चंचलता पर अंकुश लगाने कि शक्ति मिलती है। एकाग्रता एवं ध्यान कि स्थिरता मानसिक शक्तियों का विकास करती है।

यतो यतो निश्चलति मनश्चञ्चलमस्थिरम्।

ततस्ततो नियमैतदात्मन्येव वशं नयेत्। (पाद, १९८१)

खिलाड़ीओंका मन चंचल होता है बाहरी बतों का सकारात्मक और नकारात्मक प्रभाव यथा शीघ्र ही उनपर पड़ता है। इसिलिये भगवान श्री कृष्ण कहते हैं अपने चंचल और अस्थिर स्वभाव से मन जहा झा भटक रहा है वहा से खिचकर अंतरात्मा में केंद्रित करो। ताकी अपने आपको नैराश्य से दूर सकारात्मकता को उन्मुख कर सके।

चर्चा

खेल में योग द्वारा प्राप्त शक्तियों से अपनी अपूर्णता पूरी करके सामान्य से असामान्य (महान) बना जा सकता है। अवलोकन से विशेष रूप से लोगों के व्यवहार को व्यवस्थित रूप से देखना शामिल है। बड़ी परिस्थितियोंमें हम अवलोकन का उपयोग कर सकते हैं, उदाहरण के लिए, यह देखने के लिए - एक संपर्क खेल में हारने की प्रतिक्रिया में आक्रामकता की मात्रा बदल जाती है। सहसंबंध: इसमें दो या दो से अधिक चरों को मापना और यह देखना शामिल है कि वे कैसे संबंधित हैं। सकारात्मक सहसंबंध में, जैसे- जैसे एक चर बढ़ता है, वैसे- वैसे दूसरा भी बढ़ता है। इस तरह के सहसंबंध का एक उदाहरण भौतिक आकार और शत्रुता के बीच है। एक नकारात्मक सहसंबंध में, जैसे एक चर बढ़ता है, दूसरा घटता है। इसका एक उदाहरण एक मार्शल कलाकार के रूप में अनुभव

और शत्रुता के बीच संबंध है - जैसे- जैसे अनुभव बढ़ता है, शत्रुता कम होती जाती है। मनोविज्ञान के अध्ययन के पांच पहलुओं या दृष्टिकोणों को पहचानना है। ये व्यक्तिगत अंतर, सामाजिक मनोविज्ञान, संज्ञानात्मक मनोविज्ञान, शारीरिक मनोविज्ञान और विकासात्मक मनोविज्ञान हैं। खेल मनोविज्ञान में इनमें से प्रत्येक दृष्टिकोण को लागू किया जा सकता है। योग हमारे जीवन का अत्यावश्यक अंग है यह व विज्ञान जो जीव चेतना और पदार्थ तीनों को साथ लेकर चलता है। पता आज की आधुनिक युग में योग विज्ञान और अध्यात्म के बीच सेतुका कार्य कर रहा है। खेल क्षेत्र में योग का महत्व खिलाड़ियों के लिए योग एक अभिन्न अंग है। विभिन्न खेल के खिलाड़ियों के शारीरिक और मानसिक स्वास्थ्य के लिए योग की विभिन्न तकनीके अत्यंत उपयोगी है। खेल के दौरान विभिन्न प्रकार के मांसपेशीय खिंचाओ से बचने के लिए एवं उनकी खेल क्षमता तथा प्रस्तुती की अभिवृद्धि के लिए योग विज्ञान की विभिन्न विधियों का प्रयोग किया जा रहा है देश विदेश में अनेको खेल प्रशिक्षण के लिए संबंधित खेल विशेषज्ञ के साथ एक योग प्रशिक्षक की आवश्यकता भी महसूस की जा रही है।

स्वामी शिवानंद सरस्वती योग की परिभाषा को अपनी पुस्तक 'समाधि योग' में इस प्रकार प्रस्तुत करते हैं।- विद्यार्थी में मानसिक एवं मनोवैज्ञानिक आवश्यकताओं को परिपूर्ती करणी में योग पूरी तरह सक्षम है। वस्तुतः विद्यार्थी गण में मस्तिष्क तथा मस्तिष्कीय क्षमता का विकास एक आधारभूत आवश्यकता है। बृहद शोध अनुसंधान करने के बाद परिणाम प्रस्तुत करते हुये मास्को के इंस्टीट्यूट ऑफ जनरल सायकोलोजी के प्रसिद्ध मनोवैज्ञानिक जी. एन. क्राअजेनपेस्की का कहना है योगाभ्यास प्रक प्रक्रीयाये आंतरिक उर्जा कि अभिवृद्धी करने एवं चेतना के विकास के लिये बहुत उपयोगी है। योगासनो द्वारा मस्तिष्क सहित संपूर्ण तांत्रिक तंत्र पर नियंत्रण साधा और उन्हे नियंत्रित किया जा सकता है। (राऊत, २०१८)

शिफारिश

हम मनोविज्ञान का एक संक्षिप्त अवलोकन कर सकते हैं, और यह सीखना शुरू कर सकते हैं कि, मनोवैज्ञानिक सिद्धांत और अनुसंधान के बारे में गंभीर और रचनात्मक रूप से कैसे सोचना है। खेल मनोविज्ञान किसी न किसी रूप में लगभग तब तक अस्तित्व में रहा है जब तक कि स्वयं मनोविज्ञान। योग के विषय में रुची जागृत होणे का कारण आधुनिक समाज में मानसिक तणाव की वृद्धि एवम रोगों की दरम्या वृद्धि होना ही है। योग की विविध हठयोगी क्रियायें आसन, प्राणायाम आदी शरीर के लिए तो स्पष्ट रूप से हितकारी है ही, इनका मानसिक स्वास्थ्य पर भी अनुकूल प्रभाव पडता है। अनुसंधानों से स्पष्ट हो चुका है की योग अभ्यास से मानसिक तणाव कम होता है, तथा मनुष्य में मनोदैहीक सामंजस्य होता है योगाभ्यास से व्यक्ती के अंदर जीवनशक्ती का विकास मन शांत आक्रमकता से मुक्त मस्तिष्क एवं तनाव से मुक्ती मिलती है। ध्यान व प्राणायाम के अभ्यास का प्रभाव भावनात्मक स्थिरता निवृत्ती में कमी के रूप में होता है योगाभ्यास विशिष्ट मनोवृत्ती मनोदशा तथा भावनाओंको जन्म देती है। एक आसन में कुछ समय रहने से तुरंत विचार भावना मनोदशा आसन के अनुरूप हो जाते है। आंतरिक ऊर्जा के गतिमान होते ही सजगता में एक गुणात्मक परिवर्तन होता है। प्रत्येक योगाभ्यास शरीर के विशिष्ट क्षेत्र पर प्रभाव डालता है, तथा योगाभ्यास शारीरिक सजगता मनोरुणता को दूर करने एवं संवेदनशीलता को बढ़ाने का महत्वपूर्ण साधन योग है। योगद्वारा चित्तवृत्तियों और चंचलता पर अंकुश लगाने की शक्ती आती है,

एकाग्रचित्तता एवं ध्यान की स्थिरता, मानसिक शक्तियों के विकास के लिए उपयुक्त पृष्ठभूमि तयार करती है। इसीलिये खेल के हर क्षेत्र में कुशल योग आचार्योन्की नियुक्ति अनिवार्य तौर से होनी चाहिये

अक्सर देखा गया है कि उच्च स्तर के खिलाड़ी कम उम्र होने के बावजूद मासपेशियोंके खिंचाव से, हृदय में जकडन होने से मृत्यु को प्राप्त हुये। खेल के लिये जो व्यायाम किये जाते है उनको शिथिल करने के लिये खेल मे अन्य व्यायाम नहीं है। परंतु योगाभ्यास मे शारीरिक थकावट होने पर शिथिलात्मक योग याने शवासन, योगनिद्रा जैसे आसन अंतर्भूत है। आसन मन कि चंचलता, उद्विग्नता को भी शिथिल करते है। इसीलिये खिलाडीयोको तज्ञ योग शिक्षक कि उपलब्धता होनी चाहिये।

ततो द्वंद्वानभिघातः। (आर्य, २०१९)

महर्षी पतंजली साधनपाद में आसनोंकी सिद्धी बताते है। जब साधक याने खिलाडी आसनो का निरन्तर अभ्यास करता है तब उसका शारीरिक सामर्थ्य इतना बढ़ जाता है की सामान्य स्तर से अधिक शीतलता, उष्णता, भूक, प्यास इन सब से वह खेल के अभ्यास के वक्त आहत नहीं होता। उसके मासपेशियोंकी क्षमता उच्च हो जाती है। ..

निष्कर्ष

योग द्वारा जीवन का सर्वांगीण विकास करना संभव है। सर्वांगीण विकास से तात्पर्य शारीरिक, मानसिक, बौद्धिक, आध्यात्मिक नैतिक विकास से है। खेल के क्षेत्र में योग के लिये अनेकानेक संभावना भरी है तथा इस क्षेत्र में भी योग कि बहुआयामी प्रभावशीलता पर अनेक शोध अनुसंधान किये जा सकते है। यह स्पष्ट है की स्वस्थ दिमाग से खिलाडी हमेशा अच्छा प्रदर्शन कर सकता है। खेल मनोविज्ञान खिलाडी के बेहतर प्रदर्शन करने मे कारगर साबित होता है। ध्यान का अभ्यास खिलाडी कि एकाग्रता को बढ़ता है। योग जीवन के समस्त आयामो को प्रभावित करने वाली एक ऐसी विद्या है जिसके माध्यम से व्यक्ति जीवन के समस्त आयामों को प्रभावित कर सकता है एवं जीवन के सर्वश्रेष्ठ लक्ष्य को प्राप्त करने में सफलता प्राप्त करता है।

संदर्भ

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53. किशोरों में तनाव पर योगाभ्यास का प्रभाव

आंचल एल. बांगडक

संशोधनकर्त्री

डॉ. यशवंत पाटील

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यह अध्ययन किशोरों के बीच तनाव पर योगिक अभ्यासों यानी प्राणायाम और ध्यान के प्रभाव का अध्ययन करने के लिए तैयार किया गया था। वर्तमान जांच के लिए तनाव के केवल दो आयामों को लिया गया है। अर्थात् हताशा और संघर्ष। नागपूर शहर के 100 उत्तरदाताओं (50 लड़के और 50 लड़कियाँ) को यादृच्छिक रूप से चुना गया और दो समूहों यानी प्रायोगिक और नियंत्रण समूह में विभाजित किया गया। समतुल्य समूह बनाने के लिए बुद्धि परीक्षण का संचालन किया गया। शोध के साधन में पूर्व-पश्चात आभा रानी बिष्ट तनाव की चाचणी शामिल थी। एकत्र किए गए डेटा का उपयोग सांख्यिकीय उपायों का उपयोग करके विश्लेषण के लिए किया गया था। निष्कर्ष बताते हैं, कि नियंत्रित समूह की तुलना में प्रायोगिक समूह में प्राणायाम और ध्यान ने हताशा और संघर्ष के स्तर में महत्वपूर्ण कमी लाने में योगदान दिया।

कीवर्ड: तनाव, प्राणायाम और ध्यान।

सैद्धांतिक पृष्ठभूमि

इस प्रतिस्पर्धी युग में जीवनशैली इतनी तेज हो गई है कि, सामान्य जीवन जीना कठिन और कठिन हो गया है। मनुष्य तकनीक के अध्ययन में व्यस्त है लेकिन उसे खुद को अध्यात्मवाद और भगवान के अद्भुत कार्यों में शामिल होने का समय नहीं मिल रहा है। जो गणना और दिमाग की आंखों से परे हैं (डंगवाल और सिंह, 2012)। अपने दैनिक जीवन में लोग लगातार अत्यधिक तनाव में रहते हैं – दृष्टिगत, मानसिक, भावनात्मक और शारीरिक रूप से और अंततः वे गंभीर स्वास्थ्य समस्याओं की चपेट में आ जाते हैं। तनाव न केवल अक्सर अप्रिय अनुभव होता है, बल्कि शरीर को कमजोर करने के लिए भी दिखाया गया है, जिससे जैविक आयु में वृद्धि होती है और दीर्घकालिक बीमारी होने की संभावना होती है। तनाव का अनुभव तब होता है, जब भावनात्मक, शारीरिक और/या पर्यावरणीय मांगें किसी व्यक्ति के व्यक्तिगत संसाधनों और प्रभावी ढंग से सामना करने की क्षमता से अधिक हो जाती हैं (शेप्स, 2002)। काम से संबंधित मनोसामाजिक तनावों को मनोवैज्ञानिक प्रक्रियाओं के माध्यम से शरीर के कार्यों को प्रभावित करने के लिए जाना जाता है, और चार प्रकार के निकट परस्पर संबंधित तंत्रों के माध्यम से स्वास्थ्य को प्रभावित करते हैं, जो हैंरू भावनात्मक, संज्ञानात्मक, व्यवहारिक और शारीरिक (लेवी, 1990)। जब हम तनाव में होते हैं, तो हमारा शरीर ठीक से काम नहीं करता है और हम कुछ गंभीर बीमारियों से पीड़ित हो सकते हैं।

वर्तमान परिदृश्य में तनाव न केवल वयस्कों के लिए खतरनाक और महत्वपूर्ण समस्या है, बल्कि बच्चे भी तनाव (अकादमिक तनाव) में हैं। एक शैक्षणिक स्थिति में, जैसे स्कूल, एक छात्र वार्षिक परीक्षा में असफलता से

जुड़ी एक प्रत्याशित हताशा या यहां तक कि ऐसी विफलता की संभावना के बारे में जागरूकता के लिए मानसिक संकट के रूप में प्रतिक्रिया करता है (गुप्ता और खान, 1987)। अकादमिक जीवन में, अकादमिक तनाव अकादमिक प्रदर्शन के नकारात्मक भविष्यवक्ता के रूप में कार्य कर सकता है (एंडलर एट अल, 1994)। शैक्षणिक तनाव को इसके चार घटकों, हताशा, संघर्ष, दबाव और चिंता के माध्यम से मापा जाता है। पूरी समस्या की कुंजी 'स्वयं सहायता' है। व्यक्ति को यह सीखना चाहिए कि कैसे मुक्त किया जाए और कैसे मुक्त किया जाए। प्राकृतिक तनाव निवारणों की ओर बेहतर निर्भरता बनाने की आवश्यकता है। योग और ध्यान इस मोड़ पर हमारे बचाव में आते हैं, जो हमें सिखाते हैं कि कैसे स्वयं के साथ एक होकर दुनिया के साथ एक हो सकते हैं। ध्यान, आसन और प्राणायाम की अपनी तकनीकों के माध्यम से योग किशोरों (मिलादा) में तनाव के प्रबंधन में सकारात्मक प्रभाव डालता है।

योग, मन और शरीर को नियंत्रित करने का एक अभ्यास, एक प्राचीन कला है जो हजारों साल पहले भारत में शुरू हुई थी। योग आध्यात्मिक प्रकटीकरण की एक व्यवस्थित प्रक्रिया है। योग का मार्ग लोगों को सिखाता है कि कैसे एकीकृत किया जाए और अपने व्यक्तिगत अस्तित्व को ठीक किया जाए (दास, 2008)। चूंकि योग में सांस पर नियंत्रण, ध्यान और शारीरिक मुद्राएं शामिल हैं, यह माना जाता है कि यह मानव शरीर की जीवन शक्ति को बढ़ाता है, एकाग्रता में मदद करता है, मन को शांत करता है और सामान्य शारीरिक बीमारियों में सुधार करता है (वैद्यनाथन, 2004)। योग अपने सभी पहलुओं में एक कला है, सबसे व्यावहारिक से उच्चतम तक। योग को एक पूर्ण विकसित विज्ञान भी माना जाता है। योग के विज्ञान में अवलोकन और प्रयोग के माध्यम से ज्ञान प्राप्त करना शामिल है। योग चार प्रकार के होते हैं: राज योग, कर्म योग, ज्ञान योग और भक्ति योग। राज योग, जो ध्यान या एकाग्रता का योग है। राज योग में आठ चरण होते हैं और प्रत्येक चरण में आत्म-नियंत्रण, मांसपेशियों में आराम की मुद्राएं, सांस नियंत्रण, एकाग्रता और गहन ध्यान शामिल होता है (मिश्रा, 1987)। पश्चिमी दुनिया में राज योग के सबसे व्यापक रूप से इस्तेमाल किए जाने वाले चरण प्राणायाम, आसन और ध्यान (मिश्रा, 1987) हैं।

ध्यान, योग का हिस्सा है, जो अष्टांग योग (तामिनी) का सातवां अंग है। एक विश्राम तकनीक के रूप में, ध्यान अनिवार्य रूप से मन के लिए एक पुनर्स्थापनात्मक व्यायाम है। निरंतर ध्यान से व्यक्ति धीरे-धीरे स्वयं का ज्ञान प्राप्त करता है और बंधनों से मुक्त हो जाता है, न केवल बाहरी बल्कि आंतरिक चेतना में भी। ध्यान किसी के विचारों को केंद्रित करने या आत्म-चिंतन या चिंतन में संलग्न होने की क्रिया है। कुछ लोगों का मानना है कि, गहरे ध्यान के माध्यम से, व्यक्ति शारीरिक और मनोवैज्ञानिक कार्यप्रणाली और बीमारी की अवधि को प्रभावित या नियंत्रित कर सकता है (उडुपा, 1975)। जीवन का अंतिम लक्ष्य मोक्ष है और यह, शास्त्र कहते हैं, स्वयं के परम सत्य के ज्ञान और ब्रह्मांडीय स्व में इसके स्थान के ज्ञान के माध्यम से प्राप्त किया जाता है, ध्यान के माध्यम से प्राप्त किया जाता है (हरिनाथ, 2004)। ध्यान स्वतंत्रता की प्राप्ति का शाही मार्ग है एक रहस्यमय सीढ़ी जो पृथ्वी से स्वर्ग तक, अंधकार से प्रकाश तक, नश्वरता से अमरता तक पहुँचती है (Sakthignanavel, 2005)। थोड़े से धैर्य और 10-20 मिनट के साथ, दिन में 1-2 बार व्यक्ति आंतरिक शांति और संतोष की अद्भुत अनुभूति प्राप्त कर सकता है। वास्तव में धीमा होने से, ध्यान करने में लगने वाला समय अंततः घंटों का निर्माण करेगा। एक और

अधिक आराम से, अधिक ध्यान केंद्रित हो जाएगा, और परिणाम के रूप में अधिक काम करने के लिए और अधिक ऊर्जावान महसूस करेगा।

इस बात के प्रमाण बढ़ रहे हैं कि ध्यान करने से लोग स्वस्थ और खुश रह सकते हैं। ध्यान और तनाव पर हुए शोधों ने ध्यान को आध्यात्मिक रूप से लाभकारी सिद्ध किया है और यह दिखाया है कि यह निश्चित रूप से तनाव के प्रभावों का मुकाबला कर सकता है। ओमान, हेडरग और थोरसेन (2006) ने चिकित्सकों, नर्सों, पुरोहितों और अन्य स्वास्थ्य पेशेवरों पर ध्यान के प्रभाव को देखा। और पाया कि ध्यान तनाव कम करता है और मानसिक स्वास्थ्य को बढ़ा सकता है। नासिरी (2005) ने कथित तनाव पर नियमित विश्राम के प्रभावों का मूल्यांकन किया और पाया कि नियमित विश्राम ने कम कथित तनाव पैमाने के स्कोर का उत्पादन किया। बोनाडोना (2003) ने मेडिकल और प्रीमेडिकल छात्रों पर 8 सप्ताह का अध्ययन किया, यह देखने के लिए कि क्या 8 सप्ताह की अवधि के लिए नियमित ध्यान छात्रों को परीक्षा अवधि के दौरान कम चिंतित और तनावग्रस्त बना देगा। परिणाम सकारात्मक थे; ध्यान ने छात्रों के तनाव और चिंता के स्तर को कम किया। ट्रान्सैडेंटल मेडिटेशन तनाव को कम करता है (माइकल)। कौर और दिल्ली (2013) ने योग आसनों के कारण शैक्षिक चिंता में लैंगिक अंतर पाया।

जीवन में योग के महत्व और प्रासंगिकता को ध्यान में रखते हुए, शोधकर्ता ने व्यावहारिक जीवन में इसका प्रयोग करने का प्रयास किया है, ताकि इसके प्रभावों का ठोस अध्ययन और विश्लेषण किया जा सके। वर्तमान अध्ययन में केवल दो योगाभ्यासों अर्थात् प्राणायाम और ध्यान को लिया गया है।

उपरोक्त साहित्य समीक्षा से निम्नलिखित परिकल्पनाओं का निर्माण हुआ।

1. किशोरों में हताशा पर प्राणायाम और ध्यान का महत्वपूर्ण प्रभाव मौजूद है।
2. किशोरों के बीच संघर्ष पर प्राणायाम और ध्यान का महत्वपूर्ण प्रभाव मौजूद है। विधि और प्रक्रिया

अनुसंधान पद्धती

वर्तमान अध्ययन में पूर्व-पश्च प्रयोगात्मक पद्धति का चयन किया गया था। नमूना निवड नागपूर शहर में स्थित सीबीएसई स्कूलों (जहां छात्रों ने योग प्रशिक्षण नहीं लिया था) में पढ़ने वाले 100 एक्स ग्रेड छात्रों का एक नमूना यादृच्छिक रूप से तैयार किया गया था। छात्रों को यादृच्छिक रूप से दो समूहों में विभाजित किया गया था (प्रत्येक समूह में 50 छात्र अर्थात् प्रायोगिक और नियंत्रण समूह)। प्रस्तुत संशोधन के लिए बिष्ट आभा (1987) द्वारा अकादमिक तनाव चाचणी का प्रयोग किया गया। वर्तमान अध्ययन के लिए निम्नलिखित प्रक्रिया अपनाई गई।

1. समूहों का मिलान

प्रायोगिक समूह को उपचार देने से पहले, दो समूहों—प्रायोगिक और नियंत्रण समूहों का मिलान अकादमिक तनाव के स्कोर के आधार पर किया गया था ताकि समूहों को समकक्ष माना जा सके।

2. प्रयोग का आयोजन

प्रयोग करने से पहले, प्रत्येक समूह (प्रायोगिक समूह और नियंत्रण समूह) के साथ अलग-अलग आमने-सामने बातचीत करके तालमेल स्थापित किया गया था। प्रायोगिक समूह को बीस दिनों का प्रशिक्षण प्रदान

किया गया (प्रत्येक दिन 10 मिनट प्राणायाम और 10 मिनट ध्यान के सत्र के साथ)। नियंत्रित समूह को ऐसा कोई उपचार नहीं दिया गया।

3. शैक्षणिक तनाव के पैमाने का प्रशासन (परीक्षा के बाद)

प्रयोग करने के बाद, तनाव को मापने के लिए दोनों समूहों के छात्रों को पश्च-परीक्षण के रूप में अकादमिक तनाव के समान पैमाने (पूर्व-परीक्षण के रूप में प्रयुक्त) को प्रशासित किया गया था।

विश्लेषण

परिकल्पना का परीक्षण करने के लिए, प्रयोगात्मक और नियंत्रण समूह में आवृत्ति और हताशा की मात्रा के औसत स्कोर में अंतर की गणना की गई। परिणाम निम्नलिखित तालिकाओं में प्रस्तुत किए गए हैं।

तालिका : प्रयोगात्मक समूह और नियंत्रण समूह में आवृत्ति और हताशा की मात्रा के औसत अंकों में अंतर।

1(a) Experimental Group

Variable	N	Mean	S.D.	t-value
Frustration (Frequency)				
Pre-test	50	49.20	9.25	2.66*
Post-test	50	44.38	8.93	
Frustration (Quantity)				
Pre-test	50	48.12	10.49	3.52*
Post-test	50	40.68	10.67	

1(b) Control Group

Variable	N	Mean	S.D.	t-value
Variable				
Frustration (Frequency)				
Pre-test	50	49.90	9.82	0.86
Post-test	50	51.54	9.09	
Frustration (Quantity)				
Pre-test	50	49.92	9.84	0.66
Post-test	50	51.18	9.24	

*Significant at 0.01 level of confidence

तालिका 1 (ए) और 1 (बी) दर्शाते हैं कि प्रायोगिक और नियंत्रण समूह में माध्यमिक विद्यालय के छात्रों के हताशा (आवृत्ति और मात्रा) के अंकों के माध्य और एसडी के मूल्य। प्रायोगिक समूह में टी-वैल्यू 2.66 और 3.52 (तालिका 1(ए) देखें) निकली जो महत्वपूर्ण है। इसका तात्पर्य यह है कि प्रायोगिक समूह में प्राणायाम एवं ध्यान के कारण माध्यमिक विद्यालय के छात्रों की हताशा की आवृत्ति एवं मात्रा में उनके समकक्षों की तुलना में कमी आई है।

इस प्रकार शून्य परिकल्पना जिसमें कहा गया है, कि 'किशोरों में हताशा पर प्राणायाम और ध्यान का महत्वपूर्ण प्रभाव मौजूद है स्वीकार किया जाता है।

प्रयोगात्मक समूह और नियंत्रण समूह में संघर्ष की आवृत्ति और मात्रा के औसत स्कोर में अंतर।

तालिका 2 (ए) और 2 (बी) दर्शाती है कि, प्रायोगिक और नियंत्रण समूह में माध्यमिक विद्यालय के छात्रों के संघर्ष (आवृत्ति और मात्रा) के स्कोर के माध्य और एसडी के मूल्य।

Table 2(a) (Experimental Group)

Variable	N	Mean	S.D.	t-value
Frustration (Frequency)				
Pre-test	50	23.12	7.36	2.64*
Post-test	50	19.36	6.99	
Frustration (Quantity)				
Pre-test	50	26.46	7.58	2.65*
Post-test	50	22.82	7.64	

Table 2(b) Control Group

Variable	N	Mean	S. D.	t-value
Frustration (Frequency)				
Pre-test	50	21.56	6.34	1.01
Post-test	50	22.82	6.13	
Frustration (Quantity)				
Pre-test	50	22.10	6.88	0.76
Post-test	50	23.14	6.77	

*Significant at 0.01 level of confidence

प्रायोगिक समूह में टी-वैल्यू 2.64 और 2.65 (संघर्ष के लिए तालिका 2 (ए) देखें) निकली जो महत्वपूर्ण है। इसका तात्पर्य यह है कि नियंत्रित समूह की तुलना में प्रयोगात्मक समूह में प्राणायाम एवं ध्यान के कारण माध्यमिक विद्यालय के छात्रों के संघर्ष की आवृत्ति एवं मात्रा में कमी आई है। इस प्रकार शून्य परिकल्पना जिसमें कहा गया है कि 'किशोरों के बीच संघर्ष पर प्राणायाम और ध्यान का महत्वपूर्ण प्रभाव मौजूद है, स्वीकार किया जाता है।

इस अध्ययन के निष्कर्षों से पता चलता है, कि जिन छात्रों ने योगाभ्यास यानी प्राणायाम और ध्यान का अनुभव किया, वे कम तनाव का अनुभव करते हैं। अनुसंधान ने प्रदर्शित किया है कि, उच्च स्तर के तनाव से हाइपरविजिलेंस (ध्यान केंद्रित करने में असमर्थता) हो सकता है क्योंकि समाधान बहुत जल्दी (समय से पहले बंद) हो जाता है। जब तनाव को नकारात्मक रूप से देखा जाता है या अत्यधिक हो जाता है, तो छात्र शारीरिक और मनोवैज्ञानिक हानि का अनुभव करते हैं (मर्फी एंड आर्चर, 1996)। तनाव हमारे मानसिक और शारीरिक संसाधनों को

अवरुद्ध करता है और हमारे कौशल, क्षमताओं और ऊर्जा के प्रभावी उपयोग में हस्तक्षेप करता है। इसलिए योगाभ्यास स्कूली पाठ्यक्रम की नियमित विशेषता होनी चाहिए क्योंकि ये ऊर्जा के सकारात्मक चौनलाइजेशन में मदद करते हैं जिससे किशोरों के बीच निराशा और संघर्ष में कमी आती है। ये अशांत मन का विश्लेषण करते हैं और स्वतंत्रता के अंतिम लक्ष्य तक पहुँचने के तरीके और साधन दिखाते हैं।

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