



A study of Personality Types, Sports Motivation, and Competitive Aggressiveness and Anger among Individual and Team Sport Athletes

Submitted as Master's Project Work in

Department of Psychology

D.A.V. College, Sector 10

Chandigarh



Semester IV

2023

Submitted by

Supervisor

Sanya Sharma

Dr. Shruti Shourie

DECLARATION

I declare that the Dissertation entitled: “A study of Personality Types, Sports Motivation, and Competitive Aggressiveness and Anger among Individual and Team sport athletes” has been prepared by me under the guidance of Dr. Shruti Shourie, Associate Professor of Department of Psychology, D.A.V. College, Sector 10, Chandigarh, India. No part of this report has formed the basis for the award of any degree or fellowship previously.

Sanya Sharma

Roll No. : 62890

MA 4th Semester

Department of Psychology

D.A.V. College, Sector 10

Chandigarh

ACKNOWLEDGEMENTS

I would like to acknowledge and extend my heartfelt appreciation for my supervisor, Dr. Shruti Shourie, for her kind and generous guidance during the course of this dissertation. Your encouragement and expertise has been instrumental in the timely completion of this project. Your inputs and suggestions have been of incredible help to me in making necessary improvements and I would not have been able to complete this dissertation within a month's time period without your invaluable support and feedback. Needless to say, I am extremely honoured and grateful to have had an opportunity to work under a fantastic supervisor like you. I must also thank my parents for going out of their way to make this process as easy and seamless as possible. Your continuous support and upliftment throughout the writing process is tremendously appreciated.

I wish to acknowledge the immense help and assistance provided by Dr. Amanendra Mann and Dr. Yogesh from the Department of Physical Education, DAV College, who very kindly and promptly connected me to the athletes to work with during this project. A special mention of gratitude for my mentor, Ms. Aashna Narula, whose relentless support and words of encouragement kept me motivated. The completion of this dissertation would not have been possible without the incredible and overwhelming support of my classmates, friends and family in the process of data collection for this project, for which I am forever indebted.

Sincerely,

Sanya Sharma

LIST OF TABLES

TABLE NO.	TITLE	PAGE NO.
1	Mean and Standard Deviation scores of Individual and Team sport athletes	47
2	Correlation matrix for data of Individual sport athletes	48
3	Correlation matrix for data of Team sport athletes	49
4	Correlation matrix for total sample	50
5	Mean, SD, and t-ratio of Individual and Team sport athletes	51

ABSTRACT

Elite athletes are prone to experience mental health issues owing to the highly competitive and stressful nature of their practice. Specific stressors like excessive media scrutiny, injuries, impractical goal setting, and low motivation, are some common factors that have a negative impact on mental health. Competitive nature of athletes is reflected in the amount of hard work, focus and determination they put into their performance. Majority of the focus is on improvement of skill to succeed in achieving the desired results. Competition therefore serves as a means for them to satisfy their need to win. Sports motivation turns out to be a core attribute of competitive athletes. Those athletes who are high on sports motivation derive it from their competitive nature. Any obstacle or hindrance in goal achievement leads to frustration that results in aggression. The research aimed to study the relationship of Personality Types, Sports Motivation and Competitive Aggressiveness and Anger among Individual and Team Sport Athletes. Standardized tools were used to measure Personality Types, Sports Motivation, and Competitive Aggressiveness and Anger among individual and team sport athletes. A total sample of 64 athletes (N=64, Individual sport = 32, Team sport = 32) in the age of 18-25 years were collected. The results found group differences between individual and team sport athletes in Sports motivation, with individual athletes scoring higher than team sport athletes. Both positive and negative significant correlations were found between different sub-dimensions of Personality types and Competitive aggressiveness and anger. Positive correlations were found between Sports motivation and Competitive aggressiveness and anger. It can be concluded that sports psychology plays a complementary role in the enhancement of athletes' performance when it comes to gaining the winning edge, given current research findings on this topic.

Keywords: Personality Types, Sports Motivation, Competitive Aggressiveness and Anger, Sports Psychology

TABLE OF CONTENTS

CHAPTER	TITLE	PAGE NO.
1	INTRODUCTION	7-28
2	REVIEW OF LITERATURE	29-33
3	OVERVIEW, AIMS, OBJECTIVES, HYPOTHESES	34-39
4	METHODOLOGY	40-46
5	RESULTS	47-51
6	DISCUSSION, SUMMARY & IMPLICATIONS	52-56
7	REFERENCES	57-68

CHAPTER 1

INTRODUCTION

For an individual who competes in sports, and especially for elite athletes who are often competing against the ‘best of the bests’, it is not just their skill or athleticism that brings them success but more often their mental strength and will power that counts. The finest of margins determines the difference between success and failure. Winning at the highest level depends on peak performance of the body as well as the mind. In the world of elite athleticism, where all things like skill and talent are relatively equal, it is the mentality and the mind-set that turns out to separate the good from the great. Top athletes live a life full of discipline and rigorous routines to maintain their peak performance. This is particularly observed right before they go into major and crucial competitions. The difference, therefore, is usually the strategy, psychology, or a mix of both.

Sports psychology is an interdisciplinary science that draws on knowledge from many related fields including biomechanics, physiology, kinesiology, and psychology. It involves the study of how psychological factors affect performance and how participants in sport and exercise affect psychological and physical factors (Weinberg & Gould, 2010). It is the study and practice of mental preparation in sports and is concerned with techniques and strategies to bring out an athlete’s optimum performance. It also helps athletes deal with failures in terms of setbacks due to injury, performance pressure, and stress along with comebacks from failure and defeat. The major goals of a sports psychologist, therefore, includes enhancement of performance with minimum physiological effects and dealing with issues that arise from failure and other mental issues affecting the athlete. A few important themes of study in the area of sports psychology are motivation, aggression, anxiety, team cohesion and so on.

These studies are far more complex in nature than they appear to be since numerous factors within and outside athletes are at play. It is, however, assured that a systematic approach is a great determinant of success in this field. The physiological potential of athletes, which is correlated with their psychological parameters, seems to be limited. However, depending on the nature of the factors in the environment and within each individual, these limits may be modified.

The larger difference between individual and team sports primarily lies in the psychological approach of the athletes that participate in such sports. For individual sport athletes, players usually have only themselves to count on. They learn to depend on themselves, hold accountability for their success and failures, and set personal goals. By not holding responsibility for other players around them, individual sport athletes focus solely on their performance without having to worry about the effects of other players' performance on their personal ones. This, however, means that when times get tough and challenging, they have only themselves to rely on and pull out from those situations. It can have a demoralizing effect on the athlete and because of lack of support, they might experience loneliness and seclusion. On the other hand, team sports athletes exhibit an excellent spectacle of teamwork and unity. This helps each athlete to work in a cohesive manner to achieve the common team goal, which takes precedence over personal goals and milestones. Success and failure are shared, and they find support from their teammates in challenging times. Team sports also promote the ability to recognize and utilize each other's strengths which develops a healthy relationship of trust, support, and companionship among teammates. However, team sports carry an increased chance of injury since most of them require some kind of contact while playing. In case of certain individual(s) performing better than others in the team, a sense of inferiority could develop within the non-performers that could lead to low self-esteem and confidence. On the other hand, the performing individual(s) may start to feel that they are

better than others and hog all the attention and credit for the team's success that would have otherwise been shared among all the players of the team.

According to APA Dictionary of Psychology (2002), Personality refers to “the enduring characteristics and behaviour that comprise a person's unique adjustment to life, including major traits, interests, drives, values, self-concept, abilities, and emotional patterns.” It is that unique combination of beliefs, ideas, thoughts and actions that sets an individual apart from others. It is generally said to remain consistent throughout a person's life, with almost little to no significant changes over the lifespan.

In sports, personality has an essential role and a huge influence on an athlete's performance among other things. The unique combination of an athlete's traits and characteristics determine not just the performance but also the choice of sport that the athlete chooses. In an article by Piepiora (2020), that reviewed the research in sports psychology that has contributed to the understanding of relationships and potential avenues for research into personality traits in sports, it was mentioned that personality traits relate to long-term sport success, interpersonal relationships, and mental states of athletes before, during, and after competition. Clear personality differences between individuals that participated in organized sport and individuals that do not participate in organized sport were identified (Allen et al., 2013). Performance in not only sports, but also work and academia are determined by factors relating to characteristics like willingness to perform, which are governed by personality (Poropat, 2009).

Personality

Allport (1965) defined personality as “the dynamic organization within the individual of those psychophysical systems that determine his characteristic behaviour and thought.”

Morgan et al. (1993) explains that “personality includes the behaviour patterns a person shows across situations or the psychological characteristics of the person that leads to those behaviours.” Pervin and Cervone (2010) defined personality as “the psychological qualities that contribute to an individual’s enduring and distinctive patterns of feeling, thinking, and behaving.”

McCrae and Costa (1987) identified the ‘Big Five Traits’ as Openness to Experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism. These traits were acronymed as OCEAN. Openness to experience represents differences in intellectual curiosity, aesthetic sensitivity, and imagination. Highly open individuals enjoy thinking and learning, are sensitive to art and beauty, and generate original ideas (John & Srivastava, 1999). Conscientiousness represents differences in organization, productiveness, and responsibility. It defines an individual’s capacity to organize things, complete tasks, and work towards long-term goals. Its core facets include orderliness (vs. disorganization), self-discipline (vs. inefficiency) and reliability (vs. inconsistency) (Soto et al., 2016). Extroversion refers to the tendency to be assertive and social, and to experience positive affect and seek excitement (Costa & McCrae, 1992; McCrae & John, 1992). Agreeableness captures differences in compassion, respectfulness, and acceptance of others. It concerns the extent to which someone behaves pro-socially towards others and maintains pleasant, harmonious interpersonal relationships (Soto et al., 2016). Neuroticism refers to a general, emotional over responsiveness, emotional lability, and liability to neurotic breakdown under stress. It is closely related to the inherited degree of liability of the autonomic nervous system (Eysenck, 1967). It is a predisposition to experience negative affect therefore subjects high on neuroticism experience more anxiety, depression, hostility, and self-consciousness (McCrae, 1990).

THEORETICAL FRAMEWORK

Personality is made up of a consistent and unique pattern of characteristics that is reflected in the thoughts, beliefs, and behaviour of an individual (Diener et al., 2009). The structure of personality traits remain consistent across different groups of people in different cultures (Matthew et al., 2009) and these traits reflect the basic dimension on which individuals differ (Matthews, Deary & Whiteman, 2003). A theory of personality that could describe these traits was eventually developed and was called “The Big Five” or the ‘Five Factor Model’ (Goldberg, 1990; McCrae & John, 1992; McCrae & Costa, 1987). It comprised five major traits including, Openness to experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism.

Openness to Experience: The openness to experience is one of the five personality trait that measures an individual’s receptivity to novel ideas and experiences (McCrae, 1994). It assesses the tendency to appreciate new ideas, experiences, feelings, and behaviours. People who score high on this trait are open-minded, intellectual, and imaginative. They are more willing to try out new things that they have never experienced before. They are curious and eager to learn about new concepts and are more daring.

There are several facets of openness that are explained as follows:

. *Fantasy:* Have a vivid imagination that they use to create an elaborative fantasy world. They do so to enhance life experience and make it more creative. Those who score low are unimaginative and lacklustre.

a. *Aesthetic:* Have a strong appreciation for beauty and art. They are intrigued by artistic creations like poetry, music, and even nature. They may not themselves be artistic but have a deep sense of appreciation and knowledge about art. Low scorers are uninterested and unappreciative of art and beauty.

- b. *Feelings:* Are receptive to inner experiences and emotions. Emotions hold great importance for them and they tend to have much more intense high and low emotional states. Those who score low are indifferent towards emotions and are more apathetic.
- c. *Actions:* Have an inclination towards trying new things like places, food and activities. They prefer unusual and unordinary over routine. Low scorers prefer to stick to the 'tried-and-tested' approach.
- d. *Ideas:* Are intellectually interested and open to learning new ideas. They enjoy being involved in things that require the use of intellect and broadens their knowledge. Low scorers have limited capacity and have a restricted approach.
- e. *Values:* It refers to being open towards reconstructing values related to society, politics, and religion. Low scorers have an orthodox approach and are traditionalists.

Conscientiousness: This trait relates to the tendency to be organized, disciplined, hardworking and meticulous. They are responsible and reliable individuals who prefer to follow the rules. Roberts et al. (2009) defined conscientiousness as "the relatively stable pattern of individual differences in tendencies to follow socially prescribed norms for impulse control, to be goal directed, planful, to delay gratification, and to follow norms and rules." Those who score high are more organized and structured in the way they function while those who score low are relaxed and not too inclined towards orderliness.

Following are the facets of this trait:

- . *Competence:* It is associated with a high locus of control and self-esteem. High scorers are efficient, skilled, and sensible. They are confident in their ability to accomplish tasks. Low scorers are under confident and hold a low opinion about themselves.
- a. *Order:* Tend to be well organized, neat and dislike clutter and untidiness. Low scorers are disorganized, lack method in the way they do things and are disorderly. Those extremely high on this trait tend to develop compulsive disorders.

- b. *Dutifulness*: Tend to stick to principles and value their ethics. They have a high moral base and are devoted and dutiful. Those who score low are somewhat casual, unserious and untrustworthy.
- c. *Achievement striving*: Tend to be hardworking in order to achieve their goals. They have a sense of purpose and are driven. Low scorers are lazy and sluggish, lack a sense of direction, and may be ambitionless. Extremely high scorers tend to become workaholics since they invest too much in their professions to build a career.
- d. *Self-discipline*: Have the ability to perform tasks and complete them, despite distractions or boredom. They are usually self-motivated and have a regimental approach. Low scorers tend to procrastinate, quit tasks midway before completion, are poor on self-control and lack a sense of motivation.
- e. *Deliberation*: Tend to think carefully and in detail before making decisions. High scorers are vigilant and cautious. Low scorers tend to act on impulse, are spontaneous and make decisions without much thought.

Extraversion: This trait is marked by high social engagement. It relates to the tendency to be outgoing, assertive, high on energy and talkative. Individuals high on extraversion focus on procuring gratification from the external world rather than self and seek social stimulation. They are able to express themselves the best when they are in social situations. Extraverts tend to be enthusiastic and action-oriented individuals who possess high group visibility, like to talk, and assert themselves (Rothman & Coethzar, 2003). On the other hand, those who score low on extraversion are referred to as Introverts. Introverts require less social stimulation and prefer private or alone time more. They are not unfriendly or antisocial, but reserved and avoidant of very large social situations, and prefer being a part of smaller groups.

Following are the facets of this trait:

. *Warmth*: They are great at forming intimate relationships with others and show affection and care. They tend to have a bigger social circle because of their ability to form relationships easily. They tend to openly express positive feelings towards others. Low scorers tend to be more reserved and distant. They prefer a smaller and ‘close-knit’ social circle and are more private and formal.

a. *Gregariousness*: This refers to having a preference of being in other people’s company and finding it stimulating. Individuals scoring high on this facet believe in the concept of ‘the more the merrier’. They tend to have a lot of friends and acquaintances. Low scorers, on the other hand, are more reclusive and aloof. They do not seek social stimulation and avoid places with a lot of people.

b. *Assertiveness*: It refers to the ability to clearly express thoughts and opinions. High scorers have a commanding personality and tend to be forceful and hold strong opinions. They are fluent in speech and do not hesitate from expressing themselves. This quality makes them a natural leader as they tend to direct other people’s actions. Those scoring low prefer to stay quiet and in the background. They usually do not like being the centre of attraction.

c. *Activity*: They tend to be high on energy and enjoy a fast-paced life. They like being busy and involved in vigorous activities that require them to be on the move. Low scorers prefer being in solitude and in a state of calm. They are more relaxed but cannot be considered lazy.

d. *Excitement Seeking*: This refers to seeking high levels of stimulation and excitement. They find noisy environments and bright colours stimulating. They tend to get bored in the absence of such stimuli. Low scorers tend to seek less of such experiences and prefer a more quiet and soothing environment.

e. *Positive emotions*: This facet measures an individual's ability to experience a range of positive emotions like happiness, joy, optimism, love, and so on. Those who score high are usually cheerful and laugh often. Low scorers are not as high spirited and expressive of their positive emotions.

Agreeableness: Agreeableness reflects an individual's tendency to be in harmony with others and value them. They are trustworthy, kind, compassionate, and willing to compromise their interests for others. They go out of their way to help others and are optimistic about human nature. They tend to keep lasting quality relationships. Those who score low on this trait value their interests more than others. They are usually not concerned about the well-being of others and tend to be suspicious, uncooperative, and unfriendly. They may also seem to be rude and impolite. Facets of agreeableness are explained as follows :

. *Trust*: High scorers of this facet are generally of belief that people are honest, genuine, and have good intentions. They tend to take others at face value and are willing to forgive and forget. Low scorers are sceptical of other people's intentions and take time before placing their trust in them.

a. *Sincerity*: Those who score high on this facet are candid, genuine, and straight forward. They see no need for deception, manipulation or pretence. Low scorers tend to be manipulative and deceive others through flattery or lies.

b. *Altruism*: Individuals scoring high on altruism are willing to help people in a genuine way and find it rewarding. They believe doing so is a form of fulfilment rather than self-sacrifice. Low scorers tend to be hesitant in coming forward to help people and be more self-centred.

c. *Compliance*: Individuals scoring high on compliance are willing to compromise or deny their personal needs and interests in order to get along with others. They actively avoid

confrontations. Low scorers are aggressive and are more likely to refuse to comply. They keep their interests above all.

d. *Modesty*: High scorers are unassuming in their abilities, rather they are self-effacing and humble. They do not lack confidence but are rather reserved. Low scorers feel superior to others and may come across as arrogant and full of oneself.

e. *Sympathy*: High scorers are considered tender hearted and full of compassion. They express concern for others and are easily moved by others' sadness. Low scorers appear cold and rational, they tend to be apathetic and consider themselves realists.

Neuroticism: Neuroticism refers to the tendency to experience negative emotions and is also called 'emotional instability'. According to Eysenck (1967), "neuroticism is interlinked with low tolerance for stress." High scorers on neuroticism are more likely to experience huge amounts of stress and interpret mildly stressful situations as highly stressed. These individuals are also more likely to experience negative life events. Minor inconveniences are overwhelming and too difficult for them to cope up with. At the other end of the scale, low scorers are less likely to be stressed and upset. They tend to be calm, have good emotional stability and have fewer negative thoughts. This, however, does not mean they have more positive thoughts. Following are the facets of neuroticism:

. *Anxiety*: High scorers tend to have an easily and often engaged 'fight or flight' response. They always assume that something unpleasant, tragic and threatening is about to occur. They are prone to excessive worry, are jittery and tense most of the time. Low scorers tend to be calm and composed and are not always in expectation of something negative to happen.

a. *Angry Hostility*: This facet measures an individual's proneness to experience anger and other negative emotions like frustration, irritation, and bitterness. The extent of

expressing these emotions is determined by the individual's level of agreeableness. Low scorers are less likely to get angry and are peaceful.

b. *Moodiness*: It measures differences in the manner in which an individual reacts to the ups and downs of life. High scorers are prone to experience feelings of guilt, sadness, resentment, and hopelessness. Low scorers react differently to downfalls and are less likely to experience such negative emotions.

c. *Self-consciousness*: They are sensitive in terms of how they are perceived by others and are prone to feeling inferior to others. They are shy and uncomfortable in the presence of others due to fear of being ridiculed or mocked. They tend to feel embarrassed fairly easily. Low scorers remain unaffected or less disturbed by uncomfortable situations.

d. *Self-Indulgence*: High scorers experience strong cravings and urges that they might find difficult to resist or control, although being aware that it may cause guilt or regret later. They are oriented towards short-term pleasures and do not consider long term consequences. Low scores are able to resist temptations and practice self-control. They are also resilient to frustration.

e. *Sensitivity to stress*: High scorers find it tough to cope with stressful situations and tend to experience panic and helplessness. They get confused and seek dependence in the face of emergency or stressful situations. Low scorers tend to handle such situations better, without panicking and getting overwhelmed. They are more likely to be in control and do not let stress take over their ability to navigate through the situation.

Sports Motivation

In sports, motivation is regarded as the most critical prerequisite of a successful athlete. A highly motivated athlete possesses the quality of utmost determination and commitment that translates into great, and sometimes record-breaking performances. High motivation and

belief has often outperformed talent and skill. Elite athletes use various techniques to maintain motivation amidst the constant pressure that stems from extreme media scrutiny and pressure from coaches and society. The most important aspect of motivation is the process of goal setting. Setting ambitious goals that are challenging yet achievable is suggested to balance the mental stress that comes with competition. Doing so enables the athlete to pursue those goals enthusiastically, rather than viewing them as demanding or stressful. Regular monitoring and revision of goals must be done in order to make the process flexible. This also allows the athlete to take ownership and accountability of the goals. Positive self-talk and constant acknowledgement of hard work also aids in increasing motivation.

According to Vallerand and Thill (1993), “The concept of motivation is a hypothetical construct used to describe the internal and/or external forces that produce the initiation, direction, intensity, and persistence of behavior.” According to Kelly (1974), “motivation has to do with the forces that maintain and alter the direction, quality and intensity of behaviour.” According to Arellano et al. (1998) “motivation provides an important function to complete cognitive behaviour, such as planning, organization, decision making, learning, and assessments.” Omrod (2012) defined motivation as “an internal state of our mind that arouses us for action, keeps us engaged in various activities and is also responsible for pushing us in a given direction.”

Motivation is defined as “the person's attempt to complete a task, committing the necessary effort, and sustaining it” (Celikoz, 2009). It can also be defined as “the force that energizes and directs behaviour” (Roberts & Treasure, 2001). According to Ryan and Deci (2000), intrinsic motivation is “the doing of an activity for its inherent satisfaction rather than for some separable consequence” whereas, extrinsic motivation is defined as “the motivation to participate in an activity based on meeting an external goal , garnering praise and approval,

winning a competition , or receiving an award or payment. Further research by Levesque et al. (2010) states that intrinsic motivation underlies behaviour performed purely for interest and enjoyment whereas extrinsic motivation underlies behaviours performed to obtain separable rewards or avoid negative outcomes. According to Barch and Dowd (2010), amotivation, also called as avolition, is a psychological condition defined as “a reduction in the motivation to initiate or persist in goal-directed behaviour.”

THEORETICAL FRAMEWORK

According to a study by Vallerand, Deci and Ryan (1987), athletes can have either intrinsic motivation or extrinsic motivation to practice the sport they play. Intrinsic motivation refers to the internal drive that propels an athlete to play the sport. It is concerned with the inner satisfaction and enjoyment that the athlete experiences while playing the sport. On the other hand, extrinsic motivation relates to being driven or motivated to play the sport for either external incentives like money, appreciation, fame and other rewards, or avoiding negative outcomes like poverty.

Self Determination Theory: Self-determination theory (SDT; Deci & Ryan, 2002) suggests that for an individual to operate at an optimum level, three basic inherent psychological needs must be fulfilled. These are autonomy, competence, and relatedness. Autonomy refers to the ability for an individual to feel that they can make their own decisions and have a sense of control over their actions. Competence relates to one’s ability and efficacy in performing a task successfully. It is regarded as a primitive expression of motivation among athletes (Reinboth & Duda, 2006). Relatedness refers to being able to form satisfying and fulfilling relationships with others. Situations or environments that propel the attainment of these needs are ideal for providing high motivation, particularly intrinsic motivation. Research by Ryan and Deci (2000) shows that those individuals who experience satisfaction in all three needs

exhibit higher levels of self-determined behaviour. In contrast to this, events that have a negative influence on an individual's perception of these three needs will diminish their motivation.

Self-determination theory identifies three types of behaviour regulation that correspond with varying measures of self-determined motivation. The first type of motivation is intrinsic motivation. An intrinsically motivated individual performs actions that are self-determined and uncoerced. They usually engage in activities that genuinely interest them and the participation or involvement itself is the incentive or reward. Vallerand et al. (1989, 1992, 1993) looked at the concept of intrinsic motivation in a multi-dimensional way. They proposed three types of intrinsic motivation, namely intrinsic motivation towards knowledge, towards accomplishment, and towards experiencing stimulation. Intrinsic motivation towards knowledge relates to engaging in an activity for the purpose of learning and discovering new aspects of the activity. Intrinsic motivation towards accomplishment involves participation in a sport to reach and achieve bigger goals. Intrinsic motivation towards experiencing stimulation results from sensations like adrenaline and pleasure that an athlete derives from playing the sport.

Another type of motivation is extrinsic motivation, which relates to engaging in an activity in anticipation of a tangible reward or to avoid punishment or negative outcomes. Deci and Ryan (1985) also put forward a multidimensional view of extrinsic motivation. The three types of extrinsic motivation are external regulation, introjected regulation, and identified regulation. External regulation is considered the least self-determined form of external motivation because it results from a need to receive a reward or avoid negative reinforcement. The athlete is practicing the sport purely out of these reasons, and not because they actually want to or are interested in participating. Introjected regulation related to when the motivation to engage in the sport is partially, but not completely, internalized. The

participation is therefore out of pressure or guilt, rather than choice. Lastly, identified regulation relates to engaging in the sport because the athlete deems it important in order to achieve his personal valued goals. The theory also particularly mentions Amotivation, which is defined as “the lack or absence of volitional drive to engage in any activity” (Deci & Ryan, 1985). Lack of motivation will invariably result in unintentional efforts towards a task or goal. Once amotivation sets in, it is highly unlikely that the individual will continue to play the sport. Amotivated athletes neither display intrinsic nor extrinsic motivation, and will be clueless about the reason they are participating in the sport.

Achievement Goal Theory: Achievement goal theory is a well-built and empirically researched theory that is based on the concept of differences in the way people perceive their capabilities and success (Dweck, 1986; Elliot, 1999; Nicholls, 1984, 1989). Two main achievement goal orientations were identified on the basis of personal abilities, namely ego-oriented and task-oriented. Ego-oriented individuals perform an activity and consider it successful only when they have performed it better than others. The researchers hold a normative view of their competence which is based on comparison. It is associated with the desire to prove. Ego orientation is linked with preferring easy tasks, inconsequential learnings and the primary focus is to avoid failure. Alternatively, those who are task-oriented show involvement in an activity as a result of internal motivation. They hold a self-referenced view of success and consider a task successful when they have put in their best efforts, learnt something they didn't know before, and achieved a personal target. It is associated with the desire to improve (Hodge & Petlichkoff, 2000). Task orientation is linked with making a choice to be involved in tasks that are challenging and will present the individual with a chance to improve and learn something new. (Dweck & Leggett, 1988; Biddle et al., 2003; Kaplan and Maehr, 2007; Bortoli et al., 2011). Ames (1987) described task oriented individuals as those who are focused on attaining proficiency and developing their ability,

while ego-oriented individuals are those who want to exhibit and prove that they possess those abilities. These two achievement goals were later refined and a new 2x2 model was developed. This new model included four goal dimensions including; task approach, task avoidance, ego approach, ego avoidance (Elliot & McGregor, 2001). Both the approach goals were related to striving for success, whereas both avoidance goals were related to staying away from failure. Athletes who are inclined towards task approach look forward to being involved in challenges and learn new techniques, whereas those who bend towards ego approach are more concerned with outperforming their opponent. Contrary to this, athletes high on task avoidance tend to steer clear from any situation or engagement where failure is certain. Similarly, athletes high on ego avoidance perceive success when they are able to avoid defeat on the hands of their opponent.

Self-Efficacy Theory : Self efficacy theory was developed by Bandura (1977, 1997, 2001) and was a part of the framework of the social cognitive theory. He refers to self-efficacy as “a common cognitive mechanism that mediates between selected self-appraisal information and people’s subsequent thought patterns, emotional reactions, motivation, and behaviour (Bandura, 1986, 1997). These factors of motivation, behaviour, and thought patterns have a massive impact on sports performance. Athletes who are high on self-efficacy are fearless and daring, they endure pain and are extremely persevering through failures and setbacks. On the other hand, athletes low on self-efficacy display concerns related to their abilities, avoid challenges, panic over setbacks, put in low efforts, and are prone to giving up when faced with failure. It is not enough to be equipped with relevant skills and be competent to perform, rather having the confidence in oneself to be able to combine those skills and translate it into action while being able to perform under various circumstances and situations. For example, in sports, a basketball player may possess excellent dribbling and shooting skills, but may

lack the required situational awareness and presence of mind to be able to keep up with the dynamic nature of the game and devise relevant strategies and game plans to change the situation in their favour.

Bandura proposed six contributors to self-efficacy in athletes. They are explained as follows:

. *Past performance accomplishments:* They are one of the most important and influential factors since they are based on instances of achievement of success in the past. As a result, the athlete expects the same in future as well. This relates to increased self-efficacy beliefs (Bandura, 1997). However, one must avoid complacency in the process of expecting success.

a. *Vicarious influences:* Efficacy can also be acquired from observing and comparing oneself with others. Watching another athlete perform well and achieving success leads to a boost in efficacy of the observer. It involves careful and sometimes repeated observation of other's performance, taking note of the results of that performance, and using that information to analyse self's performance (Bandura, 1997; Maddux, 1995).

b. *Verbal Persuasion:* This technique includes instructional and evaluative feedback, self-talk, motivational statements, and other cognitive schemes. It is a common practice with coaches, peers, experts and seniors of the sport. If the persuasions are realistic and achievable, a significant positive impact can be observed in the self-efficacy of the receiver athlete.

c. *Physiological Information:* It includes the extent of an athlete's strength, fitness, experienced fatigue and pain. Higher the level of these factors, lower will be the athlete's self-efficacy.

d. *Emotional States:* Negative emotions like frustration, fear, self-doubt, and anger can be interpreted by the athlete as their inability to possess the required skills and therefore is detrimental to their self-efficacy.

e. *Imaginal Experiences*: Bandura (1997) describes this as ‘self-modelling’, or cognitive enactment through which athletes can build efficacy. When athletes practice simulations of being successful before an anticipatory performance, they manage to enhance their confidence and thus form efficacy.

Vealey et al. (1998) in their study were able to extend these sources and relate them to sports. They devised nine factors that serve as sources for sport confidence, listed as Mastery, Demonstration of ability, Physical and mental preparation, Physical self-representation, Social support, Coaches’ leadership, Vicarious experience, Environmental comfort, Situational favourableness.

Competitive Aggressiveness and Anger

According to Ramirez (1996, 1998, 2000); Ramirez and Ranada (1996) aggression is defined as the delivery of any form of definite and observable harm-giving behaviour towards any target (Reynolds & Andreu, 1999). Cratty (1989) defined the word ‘aggression’, which is also a psychological factor, coming from the Latin root ‘aggredi’, as (toward) and ‘gradior’, as (walk). The word literally means to walk toward, or approach, to “move against” or to move with intent to hurt. Buss (1961) defined aggression as “a response that delivers noxious stimuli to another organism. The noxious stimuli may be physical (e.g. hitting, punching, stabbing, shooting) or verbal (e.g. cursing or threatening).” Berkowitz (1962) describes aggression as “a behaviour whose goal is the injury of some person or object.”

According to Averill (1983), “anger is experienced when the plans, desires and needs of the individual are frustrated and when the individual perceives the situation as unfair and a threat towards his ego”. According to Murray (1975), “anger is an experiential emotional state which is characterized by a physiological arousal state. The arousal state is accompanied by cognitive desire to inflict harm (verbal or physical) on another person or object.” According

to Spielberger and Reheiser (2009), “anger is described as an emotional state that consists of feelings that vary in intensity, with associated activation or arousal of the autonomic nervous system.” Kavussanu and Boardley (2009) defined anti-social behaviours towards teammates and opponents in sports as “voluntary actions with the intent to harm or disadvantage another individual” that are strongly associated with anger and aggressiveness. According to Terry and Jackson (1985), aggression in sports is a “harm inducing behaviour bearing no direct relationship to the competitive goals of the sport, and relates, therefore, to incidents of uncontrolled aggression outside the rules of sport, rather than highly competitive behaviour within the rule boundaries.” Martens (1976) defined competitiveness as “a disposition to strive for satisfaction when making comparisons with some standard of excellence in the presence of evaluative others.”

THEORETICAL FRAMEWORK

LeUnes and Nation (1989) described aggression in sport as not an attitude but behaviour and, most importantly, it is reflected in acts committed with the intent to cause harm or injury. Bandura (1973) describes aggression as “a learned or acquired behaviour which results from an individual’s interaction with the social environment.”

Instinct Theory: The instinct theory was one of the first theories based on sports aggression and was given by Freud (1915). The theory proposes that aggression is inherent and instinctive in nature, and is also genetically influenced. As a result, it is somewhat unavoidable and assured. It propounds that aggression tends to be built up overtime and needs a medium of release in order to maintain the wellbeing of an individual. For athletes, the probability of being aggressive is a result of accumulation of negative feelings before the athlete gets a chance to release them. The concept of ‘catharsis’ here comes into play, which

is the process of releasing bottled up negative emotions to reduce frustration and aggression. The releasing of these emotions is done through various mediums, one of which is sports. It is important to ensure that these emotions are not released in an inappropriate or unsafe environment, or towards an innocent individual. Redirection of this emotional response from a dangerous target to a safe one is therefore important. Not much acknowledgement has been given to this theory with context to sports, as arguments related to whether sports is actually an acceptable medium to vent out aggression have been brought up.

Frustration-Aggression Theory: The theory is given by Dollard et al. (1939), the original model of frustration-aggression theory suggests that “the occurrence of aggressive behaviour always presupposes the existence of frustration and, contrariwise, that the existence of frustration always leads to some sort of aggression. It puts forward the view that aggression is a result of frustration, and frustration will always lead to aggression. The criticism of the universal validity of the occurrence of aggression later changed the definition to the view that “frustration produces instigation to aggression but this is not the only type of instigation that it may produce.” (Miller et al., 1941). Simply put, aggression is caused by frustration but frustration may not always lead to aggression. Frustration is known to develop when any goal-directed behaviour is blocked. It is understood that aggression finds its source from various factors like personality, environment, etc. and therefore it is important to identify the source from which it stems. In the sports context, factors that act as sources to aggression-causing stress were related to the organization within sports. Woodman and Hardy (2001) identified them as personal, team, leadership, and environment. Tension among athletes and also between athletes and coaches was the biggest contributing factor of stress. Coaches that are excessively strict, lack accountability by blaming athletes for failures, mismanagement of time, inadequate attention and lack of proper communication with the athletes are some common issues that arise between coaches and athletes.

The theory, however, fails to address the situational or individual factors that lead to aggression. Berkowitz (1993) reformulated the theory and argues that frustration does not always lead to aggression, but in fact creates a readiness for aggression. To transcend this frustration into aggression, a certain negative affect or stimuli is required that will finally elicit an aggressive response. He summarized several factors that impact the intensity of the stimuli to exhibit aggressive behaviours may include events/objects that have an aggressive meaning for the athlete, high levels of arousal, lowered restraint towards aggression, having a disposition for aggression, association with previous positive reinforcement or gratification from aggression (e.g. praise from coach on showing aggression).

Social Learning Theory: The social learning theory focuses on the process of learning taking place in a social milieu and how individuals acquire new behaviours by methods of observing or modelling (Bandura, 1977). According to Nabavi (2012), Bandura realized that learning is not possible through reinforcement alone so he related it to social context as well by suggesting that learning also takes place vicariously, i.e. through observing others. This suggests that human learning behaviour is regulated by both environmental and cognitive factors. Gross (2015) concludes from the social learning theory that behaviour is learnt through an amalgamation of reinforcement and imitation or modelling, which is a result of observation based learning. The theory also asserts that learning through observation or modelling will not always result in a change in behaviour, and that learning can transpire without it too (Bandura, 1965).

The process of learning consists of the following stages:

. ***Observation:*** The method of observation allows easy and quick adaptation of behaviours by just watching the behaviour take place or unfold in front of us. The outcome of that behaviour is noted, and then mirrored depending on whether the behaviour was rewarded

or punished. This permits people to learn whether the specific behaviour is socially acceptable or not.

a. *Assessment:* The observed behaviour is not straight away adapted by the observer. It requires the observer to determine whether the observed behaviour is desirable enough to be adapted. If the goal is to receive positive reinforcement in terms of respect, appreciation, or reward, and if the reproduction of the observed behaviour aligns with the goal, it will finally be acquired by the observer. On the other hand, if the observed behaviour is met with negative reinforcement like punishment or discouragement, the observed behaviour will most likely not be followed.

b. *Imitation:* Imitation is the final carrying out of the observed learned behaviour. It also depends on several factors like experiences and characteristics of the behaviour, therefore it is not assured that the imitated behaviour will be received in the same way as it did when it was observed. For the behaviour to become a habit, repeated positive feedback is needed, whereas a small amount of condemnation is enough for it to not be imitated in future.

From that perspective, participating in organized sports, particularly team sports, is a huge avenue for social learning. According to Smith (2003), organized sport holds out an excellent social context that promotes peer modelling, primarily because of establishment of rules within sports. The aspect of discipline and the presence of adult role models who represent the ideals of sport are also key factors that enable vicarious learning (Larson, 2000). It can therefore be concluded that sport provides an outstanding environment that plays a vital role in the development of moral values as a part of an individual's socialization process and behaviours like fair play, unity, solidarity are learned by athletes.

CHAPTER 2

REVIEW OF LITERATURE

Personality Types

Malinauskas et al. (2014) conducted a research on personality traits and athletic capacity among young men athletes and non-athletes. The study revealed higher conscientiousness in athletes as compared to non-athletes. It also showed higher extraversion scores for team athletes than endurance athletes. Clear personality differences between individuals that participated in organized sport and individuals that do not participate in organized sport were identified (Allen et al., 2013). Performance in not only sports, but also work and academia are determined by factors relating to characteristics like willingness to perform, which are governed by personality (Poropat, 2009). Ericson (1993) also studied personality differences between athletes and non-athletes, and found significant differences.

Personality also plays an important role in determining the coping techniques used by athletes. Extraverted athletes, who were low on neuroticism and high on openness to experiences showed a greater use of problem-focused coping strategies. Conscientious athletes who scored high on dimensions of extraversion, openness, and agreeableness showed higher usage of emotion-focused coping strategies. Athletes with high neuroticism and low levels of openness reported greater use of avoidance coping strategies (Allen et al., 2011). Nia and Besharat (2010) studied and compared personality traits among individual and team sport athletes and the results revealed that individual sport athletes scored relatively higher in conscientiousness and autonomy. On the contrary, team sport athletes scored higher on agreeableness and sociotropy. Allen et al. (2011) in their study also reported differences in personality traits of athletes competing at national or international levels and club or regional

levels. It was found that national or international level athletes were higher on emotional stability, agreeableness and conscientiousness than athletes competing at club or regional level. Conscientiousness was also revealed to be the sole predictor and have a positive significant correlation with sports performance, in a study by Mirzaei et al. (2013). Singh and Manoj (2012) performed a study on male university players and reported significant positive correlation between neuroticism and wrestling performance. Extraversion was also found to be a predictor in sports performance of team sport athletes (Taylor & Doria, 1981).

Sports Motivation

A study conducted by Kamal et al. (1985) on comparison of intrinsic and extrinsic motivation in individual sport (i.e. skiing) and team sport (i.e. basketball) athletes revealed that intrinsic motivation was higher in individual sport athletes as compared to team sport athletes. Benar and Loghmani (2012) also, in their study, reported that individual sport athletes were higher on intrinsic motivation than team sport athletes. Individual sport athletes tend to be higher on self-regulation as well, in comparison to team sport athletes (Howard et al., 2018). Similar findings of higher intrinsic motivation in individual sport athletes were also reported by Moradi et al. (2020). Daily pressures and stresses were also found to have a negative effect on intrinsic motivation, in a study by Martinent and Decret, (2015). Their study reported an increase in amotivation and external regulation due to the presence of lifestyle stress. Halldorsson et al. (2015) studied attitudes, commitments, and motivation amongst Icelandic elite athletes and the results found that elite athletes were higher on motivation, specifically need for achievement, as compared to non-elite athletes. Gender differences were also reported, where females were higher on motivation than males.

Effects of emotional intelligence as a predictor of motivation to participate in sports was studied by Sukys et al. (2019). The study revealed a negative correlation between high EQ

and amotivation. EQ was also found out to be significantly correlated to intrinsic and extrinsic motivation. Malpractices in sports, such as doping, were also studied with relation to sports motivation. Researchers found a negative correlation between high self-determination levels and doping (Chan et al., 2015) and doping intentions (Barkoukis et al., 2013). Barkoukis et al. (2011) also studied motivational and sportsmanship profiles of elite athletes in relation to doping behaviour, the results of which revealed that athletes high on intrinsic motivation scored significantly low on past doping usage and intentions to indulge in future doping acts. Mudrak et al. (2018) studied sports motivation and doping in adolescent athletes. The results disclosed a positive association of extrinsic motivation and cheating in sports. This essentially means that extrinsically motivated athletes have a high tendency to give themselves up to acts of cheating to win. Alexandra et al. (2015) examined the relation of coaches' verbal aggressiveness, as perceived by athletes, to their intrinsic and extrinsic motivation. Correlation analysis showed a negative significant correlation between coaches' verbal aggressiveness and intrinsic motivation of athletes. This suggests that the athlete's intrinsic motivation decreased whenever the coach expressed verbal aggressiveness. Consequently, it showed a significant positive correlation with amotivation, which means that amotivation increased as incidents of coaches' verbal aggressiveness increased. A study on empirical links between achievement goal theory and self-determination theory in sport was conducted by Ntoumanis (2001) on athletes from a British university. The results from regression analysis reflected that task orientation was a predictor of motivational variables with low self-determination. Perceived competence was also a positive predictor of external regulation.

Competitive Aggressiveness and Anger

According to Stephens (1998), aggression is frequently rewarded in an environment like competitive sport, even though the social norms do not approve most of the aggressive behaviours that take place on the ground.

Many gender related studies have been conducted on sports, where gender differences have been found out. With regards to competitive aggressiveness and anger, most research focuses on gender differences. Bredemeier (1994), in his study revealed that male athletes tend to consider aggression as legitimate in sports as compared to those individuals who do not practice sports. Males were also found to be more accepting of aggression as the level of physical contact increased in sport from non-contact to collision (Silva, 1983). Coulomb-Cabagno and Rasclé (2006) studied aggression in team sports as a function of gender, competitive level, and sport type. The results showed that male athletes always display more aggression than female players, regardless of the level of competition.

Several studies were conducted that were based on differences in aggression depending on the type of sport. Maxwell (2004) performed a study to examine the relationship between anger rumination and athlete aggression. The results that followed revealed that individual sport athletes scored relatively lower than team sport athletes in aggression. Khetmalis (2012) conducted a study to compare aggression in team and individual sport athletes, aged 18-25 years, the results of which reflected that team sport athletes displayed higher levels of aggression. Trivedi and Pinto (2015) in their study attempted to compare aggression levels between contact game and non-contact game athletes. Using independent sample t- test, it was revealed that contact game athletes showed higher levels of aggression than non-contact athletes. The difference was attributed to the nature of the contact sport game that involves high levels of physical contacts between players. Kemler et al. (1975) compared two types of

aggression, i.e. instrumental and reactive aggression, in players of contact and non-contact sports. Results showed that male athletes express lower instrumental aggression and higher reactive aggression, than females of non-contact sports. Various other factors are influential in the prevalence of aggression in sports. Gencheva (2015), conducted a study to examine competitive aggressiveness and anger in athletes belonging to football, rugby and field hockey. The results reported significant differences in both aggressiveness and anger in all three groups, with football athletes scoring the highest among all. The significant high scores of football athletes were attributed to the immense popularity and commercialization of the sport. With reference to athletic identity, a study by Banayi et al. (2014) was conducted to investigate its relationship with aggression. Positive significant relationship was found between athletic identity, and anger and verbal aggression.

CHAPTER 3

OVERVIEW, AIMS, OBJECTIVES AND HYPOTHESIS

- For an individual who competes in sports, and especially for elite athletes who are often competing against the ‘best of the bests’, it is not just their skill or athleticism that brings them success but more often their mental strength and will power that counts. The finest of margins determines the difference between success and failure.
- Top athletes live a life full of discipline and rigorous routines to maintain their peak performance. This is particularly observed right before they go into major and crucial competitions. The difference, therefore, is usually the strategy, psychology or a mix of both.
- The major goals of a sports psychologist includes enhancement of performance with minimum physiological effects and dealing with issues that arise from failure and other mental issues affecting the athlete.
- The larger difference between individual and team sports primarily lies in the psychological approach of the athletes that participate in such sports. By not holding responsibility for other players around them, individual sport athletes focus solely on their performance without having to worry about the effects of other players’ performance on their personal ones. This, however, means that when times get tough and challenging, they have only themselves to rely on and pull out from those situations.
- On the other hand, team sports athletes exhibit an excellent spectacle of teamwork and unity. This helps each athlete to work in a cohesive manner to achieve the common team goal, which takes precedence over personal goals and milestones. In

case of certain individual(s) performing better than others in the team, a sense of inferiority could develop within the non-performers that could lead to low self-esteem and confidence.

- In sports, personality has an essential role and a huge influence on an athlete's performance among other things. The unique combination of an athlete's traits and characteristics determine not just the performance but also the choice of sport that the athlete chooses.
- Motivation, as a critical element of an athlete's success, is considered to be the key factor in producing record-breaking performance. Motivation and belief are often superior to skill.
- In relation to aggression, intent is of critical importance as it relates to safety in sports, along with integrity and sportsmanship. Aggressive behaviour shown within the rules of the sport is justified and healthy, however doing the same to gain undue advantage is heavily criticised and at times can be dangerous to the athletes as well.

Research Gaps

The review of literature highlights the research gaps in this field. During the process of reviewing literature, it was found that very few studies have been conducted on personality types, sports motivation and competitive aggressiveness and anger, together. Further, very few studies were found on differences in personality types, and competitive aggressiveness and anger in individual and team sport athletes. It was also found that there is a lack of studies on differences in personality types and sports motivation on an Indian sample. Not many studies were found that were conducted on individual and team sport athletes together, in India.

Considering the above-mentioned gaps in mind, the primary goal is to study the personality types, sports motivation, and competitive aggressiveness and anger in individual and team sport athletes in India. An attempt to address this gap will be made through conducting this research.

Aim

The present study aims to study the Personality types, Sports Motivation and Competitive Aggressiveness and Anger among Individual and Team sport athletes.

Need of study

The field of sports psychology in India is rapidly growing, owing to the ever-increasing demand for the development of sports. Unfortunately, a significant lack of research with regards to sports psychology on Indian samples has led to a gap in the development of techniques that can contribute to the betterment of athletes' performance. There is an ever-growing need for adopting a more integrative approach towards sports psychology. Lack of awareness, formal academic courses that are in accordance with modern science, and general misconception about the importance of mental health in sports have led to a shortfall of trained and experienced professionals in the field in India. Through this research, we aim to increase the awareness of the importance of the role of sports psychology. Understanding how certain psychological factors affect performance in sports can be useful in developing strategies to enhance not only the performance, but also the physical and mental well-being of athletes. It is also important to conduct research and study different psychological aspects of Indian athletes to strengthen the base of sports psychology in a sport-loving nation like India. Sports psychology also helps in assessing an athlete's behaviour and so this research

also aims to study behaviours like competitive aggression to provide an insight into how their behaviours, both on and off the field, affect their performance. Mindset of an athlete is a key determinant of their performance and it is crucial for them to be highly motivated to ensure that they are able to put their best foot forward and achieve the desired results. This study, therefore, studies the role of motivation and its effect on sports performance. In addition to this, the research will also contribute in interpreting the role of personalities in sports and how athletes can choose the type of sport they play that is best suited for their personality. It is also beneficial in the process of goal setting and developing approaches to their goals in sports. Thus, the proposed research is an effort towards contributing in understanding the role of personality types, sports motivation, and competitive aggressiveness and anger in both individual and team sport athletes.

Research Objectives

1. This research aims to assess the relationship between Personality types and Sports motivation.
2. This research aims to assess the relationship between Personality types and Competitive aggressiveness and anger.
3. This research aims to assess the relationship between Sports motivation and Competitive aggressiveness and anger.
4. This research aims to assess group differences between individual and team sport athletes.

Research Question

1. Is there a relationship between Personality types and Sports motivation?
2. Is there a relationship between Personality types and Competitive aggressiveness and anger?
3. Is there a relationship between Sports motivation and Competitive aggressiveness and anger?
4. Are there any group differences between individual and team sport athletes?

Hypotheses

1. Personality dimensions (Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism) are expected to be related to Sports motivation (Intrinsic motivation, Extrinsic motivation and Amotivation) among individual and team sport athletes.
2. Personality dimensions (Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism) are expected to be related to Competitive aggressiveness and anger among individual and team sport athletes.
3. Sports motivation (Intrinsic motivation, Extrinsic motivation and Amotivation) is expected to be related to Competitive aggressiveness and anger among individual and team sport athletes.
4. Group differences are expected between individual and team sport athletes on Personality dimensions (Openness to experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism), Sports motivation (Intrinsic

motivation, Extrinsic motivation and Amotivation) and Competitive aggressiveness and anger.

CHAPTER 4

METHODOLOGY

This chapter clarifies the research methodology to answer the hypothesis to acquire systematic information. The aim of the present study was to identify the correlates of personality types, sports motivation, and competitive aggressiveness and anger. The study also explored differences in individual and team sport athletes. For this purpose, 64 athletes in the age of 18-25 years were selected. Out of the total sample of 64, 32 were individual sport athletes and 32 were team sport athletes. The sample of individual sport athletes belonged to badminton, swimming, athletics, skating, table tennis, taekwondo, shooting, and boxing. The sample of team sport athletes belonged to cricket, basketball, football, baseball, handball, and hockey.

Research Design

For the present study, a quantitative approach was used. Researchers use the quantitative research method when the purpose of the research is to use primary data, that is, data gathered and assembled particularly for the study, in contrast to secondary data. The present study follows the quantitative research design intended to examine the correlates among the variables used in the study and group differences among individual and team sport athletes.

Sample

The sample consists of a total of 64 athletes in the age range of 18-25 years. Out of the total sample size, 32 were individual sport athletes and 32 were team sport athletes. The sample was collected from the Tri-city area consisting of Chandigarh, Panchkula and Mohali.

Inclusion Criteria

- The age group of the respondents was 18-25 years.
- Only respondents who gave consent were considered.
- Only respondents who were actively playing a sport were included.
- Only respondents who had played the sport for a minimum of six months were included.
- Only respondents who had competed at a minimum of school/college level were included.

Exclusion Criteria

- Those suffering from any psychopathology or undergoing treatment for psychological problems were excluded from the study.
- Those suffering from any other chronic illness were excluded from the study.
- Those exhibiting any physical deformity were excluded.
- Those residing in rural areas were not selected.
- Respondents who were playing the sport for less than six months were excluded.
- Respondents who had competed below school/college level were not included.

Ethical Considerations

- Confidentiality of the responses and identity was assured.
- Participants were briefed about the purpose of the study.
- Informed consents were also obtained.
- The dignity and well-being of the respondent was protected all the time.

Tests and Tools

The following standardized tests and tools were used:

- Big Five Inventory-10 (BFI-10) (Rammstedt & John, 2007)
- Sports Motivation Scale (SMS-28) (Pelletier et al., 1995)
- Competitive Aggressiveness and Anger Scale (CAAS) (Maxwell & Moore, 2007)

All the tests used were standardized and had established reliability and validity. The scales administered were available in English. A semi structured interview schedule was also administered to the participants in order to seek detailed information about their critical social and demographic aspects such as age, gender, city, name and type of sport played, level at which they are currently competing, time since playing the sport.

Brief description of the Test and Tools Used:

The following standardized tests and tools used:

Big Five Inventory-10 (BFI-10): The questionnaire was developed by Rammstedt and John (2007). The scale has 10 items and is measuring 5 personality traits namely Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to experience. The responses are given on a 5-point Likert type scale ranging from 1 (Disagree strongly) to 5 (Agree strongly). The scoring for some items were reversed. It includes statements such as ‘I see myself as someone who is reserved’, ‘I see myself as someone who is generally trusting’, ‘I see myself as someone who tends to be lazy’. The scoring was done using the standardized scoring key and raw scores were calculated.

The reliability of the test was demonstrated by test-retest correlations between 0.65 (openness) and 0.79 (extraversion). The validity of the test was measured at 0.44.

Following instructions were given for Big Five Inventory-10:

“With reference to the question, ‘How well do the following questions describe your personality?’ read the statements that follow carefully and answer as honestly as possible. There is no time limit but try to be as quick as possible. There is no right or wrong answer, as we want to know your opinion. Your responses will be kept confidential.”

Sports Motivation Scale (SMS-28): The questionnaire was developed by Pelletier et al. (1995). The scale has 28 items and assesses 7 types of motivation; intrinsic motivation towards knowledge, accomplishment and stimulation, as well as external, introjected and identified regulations, and amotivation. There are 4 items for each of the 7 sub dimensions assessed on a 7-point Likert-type scale, ranging from 1 (Does not correspond at all) to 7 (Corresponds exactly). It includes statements such as “For the pleasure it gives me to know more about the sport I practice” , “Because it allows me to be well regarded by people I know” , and “ I don't know anymore; I have the impression of being incapable of succeeding in this sport”. The scoring is done using the standardized scoring key and raw scores for each motivation dimension were calculated.

The reliability of the test is 0.75 and the validity of the test is 0.70.

Following instructions were given for Sports Motivation Scale-28:

“Using the scale below, please indicate to what extent each of the following items correspond to one of the reasons for which you are presently practicing your sport.”

Competitive Aggressiveness and Anger Scale (CAAS) : The questionnaire was developed by Maxwell and Moores (2007). The scale has a total of 12 items, 6 items for each sub dimension, namely anger and aggressiveness in sports. The responses are given on a 5-point

Likert-type scale, ranging from 1 (Almost never) to 5 (Almost always). It includes statements like 'I verbally insult opponents to distract them' for aggressiveness, and 'I become irritable if I am disadvantaged during a match' for anger. The scoring was done by calculating the sum of all responses for both anger and aggressiveness.

The reliability of the scale was measured at 0.78 for anger, 0.84 for aggressiveness and total at 0.87. The validity was measured by calculating correlation of both variables at 0.59 and 0.60.

Following instructions were given for Competitive Aggressiveness and Anger Scale:

"Below is a list of statements about your competitiveness while playing. We would like to know how often these things happen to you. Each question has options on a 5-point Likert-scale, where 1- Almost Never and 5- Almost Always. You have to choose any one option that suits you the best. There are no right or wrong answers and your responses will be confidential. Please be honest and candid."

Procedure

Keeping in view the objectives and ethical considerations, following procedures was executed by the researcher:

To investigate the impact of personality types, sports motivation and competitive aggressiveness and anger, the current research was initiated. Review of literature was performed and appropriate tools for data collection were gathered. Next, a hypothesis was formulated and expected outcomes were identified. Eligible athletes were identified and approached for participation in the data collection. The purpose of the study was explained briefly to all participants and any doubts regarding it were cleared. Participants were given an option for voluntary participation and those who declined to participate were excluded from the research. Prior to the commencement of the study, participants were directed to read and

give their informed consent. Informed consent included description and purpose of study, voluntary nature of participation, confidentiality and anonymity, and the right of participants to withdraw participation from the study without any penalty. Upon giving standardized instructions as specified in the manual, the questionnaires were then administered. The process of data collection was done via offline hardcopy of the questionnaire as well as through online Google forms. The elements that formed part of the data collection process were a) Informed consent b) Demographic information that included name, age, gender, city, contact detail, type of sport (individual/team), name of sport, current level of competing, time since associated with the sport c) Big Five Inventory - 10, Sports Motivation Scale, and Competitive Aggressiveness and Anger scale. Once the desired responses were gathered, the participants were thanked for their valuable time and participation in the research. The scores were compiled in Excel sheets for each variable and participant. Raw scores were analysed with the help of Statistical Product and Service Solutions (SPSS). The data was then checked for any entry errors using frequency analysis and any discrepancies found were removed. The mean, standard deviation, Pearson R correlation and t- ratio Test were computed using SPSS to understand the relationship between variables and measure group differences among individual and team sport athletes. Once the results were tabulated, the interpretation and analyses were done. Further, the limitations and implications of the study and recommendations for future research in the field were written.

Scoring and Statistical Analysis

Scoring for all the given tests was done as per the scoring instructions given in the manual. The raw scores were tabulated and subjected to various statistical analysis by using Statistical

Product and Service Solution (SPSS) Package. Keeping in view the objectives of the study, statistical analysis was conducted. Means, Standard Deviation, Correlation Analysis and t-test was carried out. Correlation analysis was carried out to test the relationship between the two variables, and t-ratios were taken out to see the significant difference between the two groups. Before carrying out statistical tests, the assumptions of normality and homogeneity of variance were checked. The responses that emerged through the semi structured interview schedule, were analysed qualitatively and the results were presented in tabular form.

CHAPTER 5

RESULTS

Table 1

Mean and Standard Deviation scores of Individual and Team sport athletes

	Sport	Extraver sion	Agreeabl ness	Conscienti ousness	Neurotic ism	Openness to Experie nces	Anger	Aggressiv ness	Intrinsic Motivation	Extrinsi c Motivat ion	Amotiva tion
N	Indi vid ual	3 2	32	32	3 2	3 2	3 2	32	3 2	3 2	3 2
	Te am	3 2	32	32	3 2	3 2	3 2	32	3 2	3 2	3 2
Me an	Ind ivid ual	6. 8 4	7. 13	7.0 0	5. 2 8	6. 7 5	1 3 3	10 .0	6 8 5	6 1. 8	1 6. 2
	Te am	6. 0 3	7. 00	7.3 8	5. 5 9	6. 5 6	1 3 3	11 .3	6 0 6	5 5. 5	1 6. 1
Sta nda rd dev iati on	Indi vidu al	1. 9 0	1. 39	1.6 5	1. 8 9	1. 3 0	5 .2 7	4. 29	1 0 7	1 1. 1	5. 7 7

Team	1.64	1.41	1.74	2.17	1.44	4.65	4.69	1.60	1.57	5.60
------	------	------	------	------	------	------	------	------	------	------

Table 2*Correlation Matrix for data of Individual sport athletes*

	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness to experience	Anger	Aggressiveness	Intrinsic Motivation	Extrinsic Motivation	Amotivation
Extraversion	—									
Agreeableness	-0.054	—								
Conscientiousness	0.021	0.127	—							
Neuroticism	-0.086	-0.002	-0.073	—						
Openness to	0.259	-0.27	-0.19	-0.02	—					

experie nce		0	7	3						
Anger	-	-	- *	-	0.2	—				
	0.03	0.28	0.45 *	0.00	63					
	3	4	7	0						
Aggres sivenes s	-	-	-	-	0.1	0 *	—			
	0.33	0.09	0.30	0.10	87	. *				
	9	3	1	1		5 *				
						7				
						4				
Intrinsi c Motivat ion	0.17	-	0.10	0.08	0.1	0	0.03	—		
	5	0.21	2	0	54	.	7			
		1				1				
						4				
						6				
Extrinsi c Motivat ion	0.02	- *	-	-	0.2	0 *	0.19	0. *	—	
	4	0.41	0.31	0.17	61	.	9	48 *		
		1	0	5		3		0		
						7				
						1				
Amotiv ation	-	0.07	-	-	-	0	0.25	-	0.1	—
	0.05	8	0.25	0.08	0.0	.	1	0.	75	
	1		8	7	90	1		14		
						5		5		
						4				

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3*Correlation Matrix for data of Team sport athletes*

	Extra version	Agree ableness	Conscie ntiousness	Neur oticism	Ope nness to experience	An ger	Aggre ssiveness	Intr insic Mot ivation	Extri nsic Moti vation	Amo tivati on
Extrave rsion	—									
Agreea	-	—								

bleness	0.028									
Conscientiousness	0.166	0.223	—							
Neuroticism	0.013	-0.105	0.265	—						
Openness to experience	-0.131	0.143	-0.152	0.128	—					
Anger	-0.506	*0.093	-0.276	-0.005	0.289	—				
Aggressiveness	-0.354	*-0.039	-0.082	0.209	0.327	0*	*.725	—		
Intrinsic Motivation	-0.244	-0.020	0.103	0.151	0.208	0.	0.071	—		
Extrinsic Motivation	-0.169	-0.096	-0.002	0.267	0.276	0.	0.128	0.*784	*.784	—
Amotivation	0.123	-0.053	-0.198	-0.131	0.168	0.	0.080	0.131	0.387	*—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4

Correlation Matrix for total sample

	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness to Experiences	Anger	Aggressiveness	Intrinsic Motivation	Extrinsic Motivation	Amotivation
Extraversion	—									
Agreeableness	-0.030	—								
Conscientiousness	0.061	0.171	—							
Neuroticism	-0.053	-0.061	0.120	—						
Openness to Experiences	0.082	-0.047	-0.179	0.056	—					
Anger	-0.231	-0.105	-0.366	-0.003	0.274	—				
Aggressiveness	-0.36*	-0.07	-0.16	0.082	0.251	0.0*	—			

s	4	0	5			6 *				
						3				
						8				
Intrinsi	0.01	-	0.06	0.09	0.1	0	0.01	—		
c	0	0.07	4	6	97	.	4			
Motivat		7				0				
ion						7				
						5				
Extrinsi	-	-	-	0.07	0.2 *	0	0.11	0. *	—	
c	0.02	0.20	0.14	7	76	.	6	70 *		
Motivat	3	5	6			2		5 *		
ion						0				
						7				
Amotiv	0.02	0.01	-	-	0.0	0	0.16	0.	0.2 *	—
ation	9	3	0.22	0.11	44	.	0	02	87	
			7	0		0		0		
						9				
						7				

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5

Mean, SD and t-ratio of Individual and Team sport athletes

VARIABLE	INDIVIDUAL SPORT	TEAM SPORT	t - RATIO
----------	------------------	------------	-----------

	Mean 1	Standard deviation	Mean 2	Standard deviation	
Openness to experience	6.75	1.30	6.56	1.44	0.54
Conscientiousness	7.00	1.65	7.38	1.74	0.89
Extraversion	6.84	1.90	6.03	1.64	1.83
Agreeableness	7.13	1.39	7.00	1.41	0.36
Neuroticism	5.28	1.89	5.59	2.17	0.61
Intrinsic Motivation	68.53	10.73	60.56	15.99	2.34**
Extrinsic Motivation	61.81	11.13	55.50	15.70	1.85
Amotivation	16.16	5.77	16.06	5.60	0.06
Aggressiveness	10.03	4.29	11.31	4.69	1.14
Anger	13.34	5.27	13.34	4.65	0.00

Note. * $p < .05$, ** $p < .01$

CHAPTER 6

DISCUSSION, SUMMARY & IMPLICATIONS

Personality is an extensive factor in determining the type of sport that an athlete should choose. Along with that, an athlete's level of intensity is also crucial, since possessing a high degree of intrinsic and extrinsic qualities like motivation, drive, and hunger propels the athletes to perform to the best of their abilities. Therefore, development of a motivating atmosphere is extremely helpful in dictating sports performance for both individual and team sport athletes. Such stimulating atmospheres often result in athletes expressing emotions like anger and indulging in aggressive behaviors. These behaviors usually are an indication of the competitive spirit of the athletes, but can sometimes turn out to be detrimental to the athlete's own performance, as well as the team's performance collectively. Considering the above mentioned factors, the current research presents its results as follows.

On the basis of correlational statistical analysis of the data for individual sport athletes (see Table 2), the results revealed that there is a significant negative correlation between personality dimension of Agreeableness and extrinsic motivation ($r = -0.411$, $p < 0.05$). This observation is consistent with the previously formed hypothesis (1) and is also supported by results of a study by Hart et al. (2007) on the relationship between personality and two-factor motivation. Another study by Brinkman (2013) produced the same results with further support from regression analyses of Agreeableness with Motivation in college athletes. A significant negative correlation was also found between personality dimension of Conscientiousness and Anger ($r = -0.457$, $p < 0.01$). Extrinsic motivation was also found to have a significant positive correlation with anger ($r = 0.371$, $p < 0.05$). Since extrinsic motivation is concerned with the competitive spirit in athletes to obtain success in their sport, the interplay results in an increase in anger.

In addition to that, correlational statistical analysis of the data for team sport athletes (see Table 3) found out that there is a significant negative correlation between both Anger and Aggressiveness, and Personality dimension of Extraversion ($r = -0.506$, $p < 0.01$) ($r = -0.354$, $p < 0.05$) respectively. A significant negative correlation was also found between Extrinsic motivation and Intrinsic motivation ($r = 0.784$, $p < 0.001$). The correlation could be attributed to the observation in team sports, where along with high intrinsic motivation, athletes also experience an increase in extrinsic motivation as a result of rewards gained for performing well. Along with that, the effects of team cohesion also result in increased extrinsic motivation. This observation aligns with the results found in a study by Gul et al. (2021) that was conducted to analyse intrinsic and extrinsic motivational factors affecting sports participation of university level athletes. The results revealed significant positive correlation between intrinsic motivation and extrinsic motivation. The results of the current study also show that significant positive correlation exists between Extrinsic motivation and Amotivation ($r = 0.387$, $p < 0.05$). Other positive correlations within variables of Competitive aggressiveness and anger were also found ($r = 0.725$, $p < 0.001$).

Finally, the total sample was also statistically analysed for correlation, as shown in Table 4. The results found that there is a significant negative correlation between Competitive Aggressiveness and personality trait, Extraversion ($r = -0.364$, $p < 0.01$). It was also found that there is significant negative correlation between Anger and personality trait, Conscientiousness ($r = -0.366$, $p < 0.01$). These results align with the review of literature already established previously, along with other studies, as given by Ivanovic et al., (2015). The study was conducted to assess the relationship between aggressiveness and personality dimensions in junior Karatekas revealed a negative correlation between conscientiousness and uncontrollable physical aggression. There also turned out to be a significant positive correlation of Openness to experiences with Anger ($r = 0.274$, $p < 0.05$), Aggressiveness

($r = 0.251$, $p < 0.05$), and Extrinsic Motivation ($r = 0.276$, $p < 0.05$). Highly significant positive correlations were found between Competitive aggressiveness and anger ($r = 0.638$, $p < 0.001$), and Intrinsic and Extrinsic motivation ($r = 0.705$, $p < 0.001$). Extrinsic motivation was also found out to have significant positive correlation with Amotivation ($r = 0.287$, $p < 0.05$). Future studies should therefore focus on evaluating the factors that affect personality in sports, along with assessing various techniques to increase sports motivation. Competitive aggressiveness and anger is also relevant in modern sporting culture, therefore special emphasis should be given on ways to maintain appropriate levels of aggression that help in improvement of motivation and performance.

In addition to that, t-test was used to study group differences between individual and team sport athletes. The results (see Table 5) show that in the Personality dimension of Openness to experience, individual sport athletes score higher than team sport athletes, although without any significant difference ($t = 0.54$). For Conscientiousness, team sport athletes were found to be higher ($t = 0.89$). For both the dimensions of Extraversion and Agreeableness, individual sport athletes scored higher, with the values ($t = 1.83$) and ($t = 0.36$) respectively. In the Neuroticism dimension, team sport athletes had a higher score ($t = 0.61$). Therefore, group differences in personality dimensions were noted, although not significant. The findings align with results from previous literature, as conducted by Lakie (1962), and Pyecha (1970). The results of these studies also concluded with no significant differences measured in personality. Another study by Rogowska (2020) showed no significant differences between the two groups in neuroticism, extraversion, and openness. Conscientiousness was also measured at the same level for both groups, therefore revealing no group differences. The results also outlined that team sport athletes are higher on aggressiveness than individual sport athletes ($t = 1.14$), although they are equal on scores of anger ($t = 0.00$). Previous research by Stankovic et al. (2022) and many others also revealed

similar results. Moreover, the results of the current study also reveal that individual sport athletes are much higher on intrinsic motivation ($t = 2.34$) and extrinsic motivation ($t = 1.85$) as compared to team sport athletes. The p value for intrinsic motivation was also found to be significant ($p = 0.022$, <0.05). This supports our hypothesis of the presence of group differences in individual and team sport athletes in sports motivation. A study by Pluhar et al. (2019) also reported similar findings. The study was conducted to compare athlete's motivation to play in individual and team sport athletes, among other variables. The results that followed reported that individual sport athletes were more likely to play the sport for goal-oriented reasons, which aligns with the concept of extrinsic motivation and thus supports the results of the current study. No major differences were found in personality types and amotivation of both types of athletes.

The current study attempted to cover the gaps in research with respect to sports psychology in India. However, there is a growing need for more elaborative research studies that can contribute to the ever-growing body of literature in the field of sports psychology. There should be increased investments in the field to further improve the condition of sports and achieve global recognition of Indian sports and its athletes.

SUMMARY AND IMPLICATIONS

As researchers and practitioners have gained a greater comprehension of the psychological factors that influence athletic performance and the mental health of athletes, sports psychology has advanced significantly over the years. Here are some of the most significant developments in sports psychology over time:

Once considered a niche field, sports psychology has garnered widespread recognition in recent years as more athletes and coaches have recognised the significance of mental skills for sports performance. Advances in neuroscience and psychology have led to a greater comprehension of how the brain and mind function, as well as how psychological factors such as motivation, confidence, and attention can influence athletic performance. Athletes confront unique psychological challenges, such as coping with pressure, overcoming setbacks, and managing the demands of training and competition. The focus of sports psychology has shifted towards addressing these challenges and promoting athletes' mental health and well-being.

Development of evidence-based interventions: Advances in sports psychology research have led to the development of evidence-based interventions that can assist athletes to improve their mental skills and performance. These include visualization, goal-setting, and mindfulness techniques.

As researchers and practitioners recognise the importance of addressing both the physical and psychological aspects of athletic performance and well-being, sports psychology has become more integrated with other disciplines, such as nutrition, physical therapy, and sports medicine.

Overall, sports psychology has made significant strides in recent years, and its influence can be observed in the performance of elite athletes and the expanding recognition of the significance of mental skills for sports performance and well-being.

REFERENCES

- Alexandra, B., Stefanos, P., & Vassilis, G. (2015). Verbal aggression in basketball: perceived coach use and athlete intrinsic and extrinsic motivation. *Journal of Physical Education and Sport*, 15(1), 96.
- Allen, M. S., Greenlees, I., & Jones, M. (2011). An investigation of the five-factor model of personality and coping behaviour in sport. *Journal of sports sciences*, 29(8), 841-850.
- Allen, M. S., Greenlees, I., & Jones, M. (2013). Personality in sport: A comprehensive review. *International Review of Sport and Exercise Psychology*, 6(1), 184-208.
- Allport, G. W. (1966). Traits revisited. *American Psychologist*, 21(1), 1–10.
- Ames, C. (1987). The enhancement of student motivation. *Advances in Motivation and Achievement*, 5, 123-148.
- APA Dictionary of Psychology. (2022). American Psychological Association. <https://dictionary.apa.org/personality-trait>
- APA Dictionary of Psychology. (n.d.). <https://dictionary.apa.org/personality>
- Arellano, C. M., Chavez, E. L., & Deffenbacher, J. L. (1998). Alcohol use and academic status among Mexican American and White non-Hispanic adolescents. *Adolescence*, 33(132), 751.
- Averill, J. R. (1983). Studies on anger and aggression: Implications for theories of emotion. *American Psychologist*, 38(11), 1145–1160.
- Banayi, N., Nikbakhsh, R., & Zargar, T. (2014). The relationship between aggressions with athletic identity on Shiraz team sports. *Age*, 15(20), 170-179.
- Bandura, A. (1973). A social learning analysis. Englewood Cliffs, NJ: Prentice-Hall.

- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191–215.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology*, 4(3), 359-373.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual review of psychology*, 52(1), 1-26.
- Barch, D. M., & Dowd, E. C. (2010). Goal representations and motivational drive in schizophrenia: the role of prefrontal–striatal interactions. *Schizophrenia bulletin*, 36(5), 919-934.
- Barkoukis, V., Lazuras, L., Tsorbatzoudis, H., & Rodafinos, A. (2013). Motivational and social cognitive predictors of doping intentions in elite sports: An integrated approach. *Scandinavian Journal of Medicine & Science in Sports*, 23(5), e330-e340.
- Barkoukis, V., Lazuras, L., Tsorbatzoudis, H., & Rodafinos, A. (2011). Motivational and sportpersonship profiles of elite athletes in relation to doping behavior. *Psychology of Sport and Exercise*, 12(3), 205-212.
- Benar, N., & Loghmani, M. (2012). The relationship between goal-orientations and sport commitment among athletes. *Pedagogics, psychology, medical-biological problems of physical training and sports*, (5), 154-160.
- Berkowitz, L. (1962). *Aggression: A social psychological analysis*. New York: McGraw-Hill.

- Biddle, S., Wang, C. J., Kavussanu, M., & Spray, C. (2003). Correlates of achievement goal orientations in physical activity: A systematic review of research. *European Journal of Sport Science*, 3(5), 1-20.
- Bortoli, L., Bertollo, M., Comani, S., & Robazza, C. (2011). Competence, achievement goals, motivational climate, and pleasant psychobiosocial states in youth sport. *Journal of Sports Sciences*, 29(2), 171-180.
- Bredemeier, B. J. L. (1994). Children's moral reasoning and their assertive, aggressive, and submissive tendencies in sport and daily life. *Journal of Sport and Exercise Psychology*, 16(1), 1-14.
- Brinkman, C. (2013). *The Big Five personality model and motivation in sport* (Doctoral dissertation, Miami University).
- Buss, A. H. (1961). *The Psychology of Aggression*. John Wiley & Sons, Inc.. <https://doi.org/10.1037/11160-000>
- Çeliköz, N. (2009). Basic factors that affect general academic motivation levels of candidate preschool teachers. *Procedia-Social and Behavioral Sciences*, 1(1), 1357-1365.
- Cervone, D., & Pervin, L. A. (2022). *Personality: Theory and research*. John Wiley & Sons.
- Chan, D. K. C., Yang, S. X., Hamamura, T., Sultan, S., Xing, S., Chatzisarantis, N. L., & Hagger, M. S. (2015). In-lecture learning motivation predicts students' motivation, intention, and behaviour for after-lecture learning: Examining the trans-contextual model across universities from UK, China, and Pakistan. *Motivation and Emotion*, 39, 908-925.
- Costa Jr, P. T., & McCrae, R. R. (1992a). Four ways five factors are basic. *Personality and Individual Differences*, 13, 653-665. doi: 10.1016/0191-8869(92)90236-i
- Coulomb-Cabagno, G., & Rasclé, O. (2006). Team sports players' observed aggression as a function of gender, competitive level, and sport type. *Journal of Applied Social Psychology*, 36(8), 1980-2000.

- Deci, E. L., & Ryan, R. M. (2013). *Intrinsic motivation and self-determination in human behavior*. Springer Science & Business Media.
- Deci, E. L., & Ryan, R. M. (Eds.), (2002). *Handbook of self-determination research*. Rochester, NY: University of Rochester Press.
- Diener, E., Lucas, R. E., & Cummings, J. A. (2019). 16.1 Personality Traits. *Introduction to Psychology*.
- Dollard, J., Miller, N. E., Doob, L. W., Mowrer, O. H., & Sears, R. R. (1939). *Frustration and aggression*. New Haven, CT: Yale University Press
- Dweck, C. S. (1986). Motivational processes affecting learning. *American psychologist*, 41(10), 1040.
- Dweck, C. S., & Leggett, E. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95, 256—273.
- E.L. Deci, R.M. Ryan. *Intrinsic Motivation and Self-Determination in Human Behavior* Plenum Press (1985)
- Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. *Educational Psychologist*, 34(3), 169-189.
- Elliot, A. J., & McGregor, H. A. (2001). A 2× 2 achievement goal framework. *Journal of Personality and Social Psychology*, 80(3), 501.
- Erickson, R. S. (1993). *Personality difference between athletes and Non-athletes*.
- Eysenck, H. J. (1967). "A Biological Basis of Personality". C. C. Thomas, Springfield.
- Nebylitsyn, V. D. and Gray, J. A. (1967). "Biological Bases of Individual Differences". Academic Press, New York and London.

- Fresno Pacific University. (2021). *Team Sports vs. Individual Sports | The Advantages and Disadvantages*. <https://ce.fresno.edu/news/team-sports-vs-individual-sports-both-offer-lessons-to-students/>
- Freud, S. (1915). Instincts and their vicissitudes, Standard Edition, vol. 14. New York.
- Gencheva, N. (2015). Aggression in youth athletes. *Research in Kinesiology*, 43(2), 205-209.
- Goldberg, L. R. (1990). An alternative" description of personality": the big-five factor structure. *Journal of Personality and Social Psychology*, 59(6), 1216.
- Griffin, Barbara & Hesketh, Beryl. (2004). Why Openness to Experience is not a Good Predictor of Job Performance. *International Journal of Selection and Assessment*. 12. 10.1111/j.0965-075X.2004.278_1.x
- Gross, R. (2015). *Psychology: The science of mind and behaviour 7th edition*. Hodder Education.
- Gul, F., Sattar, S., Kazmi, I. B., Ayub, F., Arshad, S., & Abid, W. (2021). ANALYSIS OF INTRINSIC AND EXTRINSIC MOTIVATIONAL FACTORS AFFECTING SPORTS PARTICIPATION OF UNIVERSITY LEVEL ATHLETES. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 18(10), 1583-1592.
- Halldorsson, V., Helgason, A., & Thorlindsson, T. (2012). Attitudes, commitment and motivation amongst Icelandic elite athletes. *International Journal of Sport Psychology*, 43(3), 241.
- Hart, J. W., Stasson, M. F., Mahoney, J. M., & Story, P. (2007). The Big Five and Achievement Motivation: Exploring the Relationship Between Personality and a Two-Factor Model of Motivation. *Individual Differences Research*, 5(4).
- Hodge, K., & Petlichkoff, L. (2000). Goal profiles in sport motivation: A cluster analysis. *Journal of Sport and Exercise Psychology*, 22(3), 256-272.

- Howard, S. J., Vella, S. A., & Cliff, D. P. (2018). Children's sports participation and self-regulation: Bi-directional longitudinal associations. *Early Childhood Research Quarterly*, 42, 140-147.
- Ivanovic, M. Z., Milosavljevic, S. M., & Ivanovic, U. M. (2016). Factorial structure of the relationship between aggressiveness and personality dimensions in junior karatekas. *Facta Universitatis, Series: Physical Education and Sport*, 371-381.
- Kamal, A. F., Alharoun, M., Metuzals, P., & Parsons, C. (1985). Intrinsic versus extrinsic motivation in team sport athletes and individual sport athletes. *FIEP Bulletin*, 55(3), 17-23.
- Kaplan, A., & Maehr, M. L. (2007). The contributions and prospects of goal orientation theory. *Educational Psychology Review*, 19, 141-184.
- Kavussanu, M., and Boardley, I. D. (2009). The Prosocial and Antisocial Behavior in Sport Scale. *Journal of Sport & Exercise Psychology*, 31, 97-117.
- Kelly, J. (1974). *Organizational Behavior*. Homewood, Illinois: Richard D. Irwin. Inc. and Dorsey Press. cl969.
- Kemler, R., Mossmann, H., Strohmaier, U., Kickhöfen, B., & Hammer, D. K. (1975). In vitro studies on the selective binding of IgG from different species to tissue sections of the bovine mammary gland. *European Journal of Immunology*, 5(9), 603-608.
- Khetmalis, M. S. (2012). Comparison of aggression between Team Game Players and Individual Game Players. *International Journal of Behavioural Social and Movement Sciences*, 1(2), 113-116.
- Lakie, W. L. (1964). Expressed attitudes of various groups of athletes toward athletic competition. *Research Quarterly. American Association for Health, Physical Education and Recreation*, 35(4), 497-503.

- Larson, R. W. (2000). Toward a psychology of positive youth development. *American Psychologist*, 55, 170e183. doi:10.1037//0003-066X.55.1.170
- LeUnes, I.D., & Nation, J.R. (1989). *Sportpsychology: An introduction*. Chicago: NelsonHall.
- Levesque, C. & Cara, Kelly & Pattie, M.D. & Deci, Edward. (2010). Intrinsic and Extrinsic Motivation. 10.1016/B978-0-08-044894-7.00612-6.
- Lorenz, K. (1966). *On aggression*, New York (Harcourt, Brace & World, Inc.) 1966.
- Maddux, J. E. (1995). Self-efficacy theory: An introduction. *Self-efficacy, adaptation, and adjustment: Theory, research, and application*, 3-33.
- Malinauskas, R., Dumciene, A., Mamkus, G., & Venckunas, T. (2014). Personality traits and exercise capacity in male athletes and non-athletes. *Perceptual and Motor Skills*, 118(1), 145-161.
- Martens, R. ~1976!. Competitiveness and sport. Paper presented at the International Congress of Physical Activity Sciences, Quebec City, Canada.
- Martinent, G., & Decret, J. C. (2015). Motivational profiles among young table-tennis players in intensive training settings: A latent profile transition analysis. *Journal of Applied Sport Psychology*, 27(3), 268-287.
- Matthews, Gerald., Ian, J. Deary., & Martha, C. Whiteman. (2009). *Personality Traits: third edition*. New York: Cambridge University Press
- Maxwell, J. P. (2004). Anger rumination: An antecedent of athlete aggression?. *Psychology of Sport and Exercise*, 5(3), 279-289.
- Maxwell, J. P., & Moores, E. (2007). The development of a short scale measuring aggressiveness and anger in competitive athletes. *Psychology of Sport and Exercise*, 8, 179-193.
- McCrae, R. R. & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*, 60, 175–215.

- McCrae, R. R. (1994). Openness to experience: Expanding the boundaries of Factor V. *European Journal of Personality*, 8(4), 251-272.
- McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52, 81–90.
- Miller, N. E., Sears, R. R., Mowrer, O. H., Doob, L. W., & Dollard, J. (1941). I. The frustration-aggression hypothesis. *Psychological Review*, 48(4), 337–342.
doi:10.1037/h0055861
- MIR'ATUS, S. H. O. L. E. K. H. A. H. (2017). *THE CORRELATION BETWEEN STUDENTS' PERSONALITY TRAITS AND THEIR READING COMPREHENSION AT TENTH GRADE OF ISLAMIC SENIOR HIGH SCHOOL MUHAMMADIYAH PEKANBARU* (Doctoral dissertation, Universitas Islam Negeri Sultan Syarif Kasim Riau).
- Mirzaei, A., Nikbakhsh, R., & Sharififar, F. (2013). The relationship between personality traits and sport performance. *European Journal of Experimental Biology*, 3(3), 439-442.
- Moradi, J., Bahrami, A., & Dana, A. (2020). Motivation for participation in sports based on athletes in team and individual sports. *Physical Culture and Sport. Studies and Research*, 85(1), 14-21.
- Mudrak, J., Slepicka, P., & Slepickova, I. (2018). Sport motivation and doping in adolescent athletes. *PLoS one*, 13(10), e0205222.
- Murray, T. H. (1975). *Anger: a descriptive analysis of the definition, dynamics, physiology, maladaptive characteristics and educational applications* (Doctoral dissertation, Montana State University-Bozeman, College of Education, Health & Human Development).
- Nabavi, R. T. (2012). Bandura's Social Learning & Cognitive Learning Theory.
- Nia, M. E., & Besharat, M. A. (2010). Comparison of athletes' personality characteristics in individual and team sports. *Procedia-Social and Behavioral Sciences*, 5, 808-812.

- Nicholls, M. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review*, 91, 328—346.
- Nicholls, M. G. (1989). *The competitive ethos and democratic education*. Cambridge, MA: Harvard University Press
- Ntoumanis, N. (2001). Empirical links between achievement goal theory and self-determination theory in sport. *Journal of Sports Sciences*, 19(6), 397-409.
- Ormrod, J. E. (2012). *Human learning* (6th ed.). Upper Saddle River, NJ: Pearson
- Pelletier, L. G., Fortier, M. S., Vallerand, R. J., Tuson, K. M., Brière, N. M., & Blais, M. R. (1995). Toward a new measure of intrinsic motivation, extrinsic motivation, and amotivation in sports: The Sport Motivation Scale (SMS). *Journal of Sport & Exercise Psychology*, 17, 35-53.
- Pieporra, P. (2020). A review of personality research in sport. *Pedagogy and Psychology of Sport*, 6(4), 64-83.
- Pluhar, E., McCracken, C., Griffith, K. L., Christino, M. A., Sugimoto, D., & Meehan III, W. P. (2019). Team sport athletes may be less likely to suffer anxiety or depression than individual sport athletes. *Journal of Sports Science & Medicine*, 18(3), 490.
- Poropat, A. E. (2009). A meta-analysis of the five-factor model of personality and academic performance. *Psychological Bulletin*, 135, 322-338.
- Pyeche, J. (1970). Comparative effects of judo and selected physical education activities on male university freshman personality traits. *Research Quarterly. American Association for Health, Physical Education and Recreation*, 41(3), 425-431.
- RAMÍREZ, J. M., 2000. *Agresión: un enfoque psicobiológico*. [Aggression: a psychobiological approach]. Valencia: Promolibro.
- Ramírez, J.M., 1996. Causes and functions of aggression. *Hiroshima Forum for Psychology* 17, 21–37.

- Ramírez, J.M., 1998. Aggression. In: Greenberg, G., Haraway, M.M. (Eds.), *Comparative Psychology: A Handbook*. Garland, New York, pp. 625–634
- Ramírez, J.M., Ranñada, A.F., 1996. De la agresión a la guerra nuclear. Nobel, Oviedo.
- Rammstedt, B. & John, O.P. (2007). [Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German](#). *Journal of Research in Personality*, 41, 203–212.
- Reinboth, M., & Duda, J. L. (2006). Perceived motivational climate, need satisfaction and indices of well-being in team sports: A longitudinal perspective. *Psychology of Sport and Exercise*, 7(3), 269-286.
- Reynolds, M., Andreu, J.M., 1999. From aggression to nuclear war. *Aggressive Behavior* 25, 309–310.
- Roberts, B. W., Jackson, J. J., Fayard, J. V., Edmonds, G., & Meints, J. (2009). Handbook of individual differences in social behavior, Chapter Conscientiousness. *New York: Guilford*, 369-381.
- Roberts, G. C., & Treasure, D. (2012). *Advances in Motivation in Sport and Exercise*. Human Kinetics.
- Roccas, S., Sagiv, L., Schwartz, S. H., & Knafo, A. (2002). The big five personality factors and personal values. *Personality and Social Psychology Bulletin*, 28(6), 789-801.
- Rogowska, A. M. (2020). Personality differences between academic team sport players and physical education undergraduate students. *Physical Education of Students*, 24(1), 55-62.
- Rothmann, S., & Coetzer, E. P. (2003). The big five personality dimensions and job performance. *SA Journal of Industrial Psychology*, 29(1), 68-74.
- Ryan, R. M., and Deci, E. L. (2000). Intrinsic and extrinsic motivations: classic definitions and new directions. *Contemp. Educ. Psychol.* 25, 54–67.

- Silva, J. M. (1983). The perceived legitimacy of rule violating behavior in sport. *Journal of Sport and Exercise Psychology*, 5(4), 438-448.
- Singh, G., & Manoj, K. (2012). Sports Performance: Personality as predictor of wrestling performance in university level male players. *VSRD Tech & Non-Tech J*, 3(8), 291-296.
- Smith, A. L. (2003). Peer relationships in physical activity contexts: a road less traveled in youth sport and exercise psychology research. *Psychology of Sport and Exercise*, 4, 25e39. doi:10.1016/S1469-0292(02)00015-8.
- Soto, C. J., Kronauer, A., & Liang, J. K. (2016). Five-factor model of personality. In S. K. Whitbourne (Ed.), *Encyclopedia of adulthood and aging* (Vol. 2, pp. 506-510). Hoboken, NJ: Wiley.
- Soto, Christopher. (2018). Big Five personality traits.
- Spielberger, C. D., & Reheiser, E. C. (2009). Assessment of emotions: Anxiety, anger, depression, and curiosity. *Applied Psychology: Health and Well-Being*, 1(3), 271-302.
- Stanković, N., Todorović, D., Milošević, N., Mitrović, M., & Stojiljković, N. (2022). Aggressiveness in judokas and team athletes: Predictive value of personality traits, emotional intelligence and self-efficacy. *Frontiers in Psychology*, 12, 6471.
- Stephens, D. (1998). Aggression. In J. L. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 277-292). Morgantown, WV: Fitness Information Technology
- Sukys, S., Tilindienė, I., Cesnaitienė, V. J., & Kreivytė, R. (2019). Does emotional intelligence predict athletes' motivation to participate in sports?. *Perceptual and motor skills*, 126(2), 305-322.
- Taylor, D. M., & Doria, J. R. (1981). Self-serving and group-serving bias in attribution. *The Journal of Social Psychology*, 113(2), 201-211.
- Terry, P. C., & Jackson, J. J. (1985). The determinants and control of violence in sport. *Quest*, 37(1), 27-37.

- Thomson, P., & Jaque, S. V. (2018). Childhood adversity and the creative experience in adult professional performing artists. *Frontiers in Psychology*, 9, Article 111.
- Trivedi, R., & Pinto, E. (2015). A comparative study of aggression between contact game and non-contact game players of Maharashtra. *Int. J. Phys. Educ. Sports Health*, 2(2), 137-140.
- Vallerand, R. J., & Fortier, M. S. (1998). Measures of intrinsic and extrinsic motivation in sport and physical activity: A review and critique. In J. Duda (Ed.), *Advancements in sport and exercise psychology measurement* (pp. 83-100). Morgantown, WV: Fitness Information Technology.
- Vallerand, R. J., & Thill, E. E. (1993). *Introduction à la psychologie de la motivation*. Études vivantes,.
- Vallerand, R. J., Blais, M. R., Brière, N. M., & Pelletier, L. G. (1989). Construction et validation de l'échelle de motivation en éducation (EME) [Construction and validation of the academic motivation scale in French (EME)]. *Canadian Journal of Behavioral Science*, 21, 323-349
- Vallerand, R. J., Deci, E., & Ryan, R. M. (1987). Intrinsic motivation in sport. *Exercise and Sport Sciences Reviews*, 15, 389—425.
- Vallerand, R. J., Pelletier, L. G., Blais, M. R., Brière, N. M., Sénécal, C., & Vallières, E. F. (1992). The academic motivation scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement*, 52, 1003-1017.
- Vealey, R. S., Garner-Holman, M., Hayashi, S. W., & Giacobbi, P. (1998). Sources of sport-confidence: Conceptualization and instrument development. *Journal of Sport and Exercise Psychology*, 20(1), 54-80.
- Weinberg RS, Gould D. *Foundations of Sport and Exercise Psychology*. Champaign, IL: Human Kinetics. 2010.

Woodman, T., & Hardy, L. (2001). A case study of organizational stress in elite sport. *Journal of Applied Sport Psychology*, 13(2), 207-238.