



A STUDY ON SPORTPERSON'S PERFORMANCE BOTH PHYSICALLY AND MENTALLY

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Abstract

A significant amount of attention has been paid by the fields of sports psychology and science to the association that exists between physical activity, psychological well-being, and performance on the field. In order to gain a better understanding of the interaction between these variables and how they influence the overall performance of athletes, the objective of this research is to learn more about it. As part of the mixed-methods approach, interviews with veteran athletes were conducted in order to collect qualitative data. Additionally, quantitative measurements, such as performance metrics and psychological evaluations, were utilized in order to gather information. We wanted to make sure that the training routines and the demands of the competition were different, so we selected participants from a wide variety of sports. In the early research that has been conducted, it has been found that there is a favorable correlation between an individual's mental health, athletic performance, and the frequency of physical activity. It was discovered by researchers that athletes who combined mindfulness practices with structured physical training programs had improved attention, increased resilience, and overall satisfaction with their performance results. The significance of mental factors such as motivation, self-confidence, and stress management is brought to light by qualitative research findings when it comes to maximizing the benefits of physical exercise. Athletes emphasize the two-way benefits of a comprehensive training regimen by defining a symbiotic relationship between mental clarity and physical intensity. This interaction is described as a mutually beneficial relationship. In light of these findings, our understanding of the ways in which mental health and physical activity interact to improve athletic performance has been expanded. It is possible to improve athletes' performance and health by incorporating mental training techniques into their physical conditioning routines. These techniques have real-world implications.

Keywords: physical activity, mental wellbeing, sports performance, athlete, mindfulness, training.

INTRODUCTION

Optimal athletic performance has long been associated with high levels of physical fitness and technical competence within the field of sports science. New studies, however, have shown that an athlete's mental health is just as important as their physical condition in determining their final performance results. The purpose of this research is to provide light on the ways in which mental health and physical activity interact with one another in the setting of athletics in order to determine how well athletes perform.

The importance of physical activity in developing one's strength, stamina, and agility cannot be overstated. Athletes who want to perform at their best should exercise regularly since it

has many benefits beyond just the body. It improves cognitive function, mood regulation, and stress management. It is becoming more and more apparent that psychological variables like emotional stability, attention, and resilience are drivers of success in competitive sports. Concurrently, mental wellbeing includes these qualities.

Rather than being a mere coincidence, the connection between regular physical exercise and psychological health is mutually beneficial. Mood stability, self-esteem, and anxiety levels can all be improved with regular participation in structured physical training programs. Athletes can greatly improve their capacity to maintain physical effort and perform well under pressure by focusing on psychological aspects including motivation, goal-setting techniques, and mindfulness activities.

This study takes a holistic view of the topic, looking at how different types of athletic performance can be enhanced through the use of tactics that promote both physical and mental health. The goal of this research is to find out how these elements interact and support each other by combining quantitative analysis of performance data with qualitative insights from interviews with elite athletes.

This study's overarching goal is to educate sports practitioners, coaches, and players on the holistic advantages of combining conventional physical training with mental health issues. Our goal is to raise awareness of these interconnected dynamics in the hopes of fostering a more holistic strategy for sports training that improves health and performance simultaneously.

A comprehensive and well-rounded approach to training and performance is essential for athletes to reach their maximum potential, and this study aims to close the gap between the mental and physical components of athletic training.

A key topic of inquiry in the ever-changing world of professional sports is the integration of mental and physical training tactics. In order to perform at one's best, athletes and coaches have long known that physical fitness is crucial. A more comprehensive approach to sports training, however, has emerged in response to the growing consensus that mental wellness is an important factor in athletic performance.

Athletes who take care of their mental health tend to be more consistent performers, have better decision-making skills, and heal faster from injuries, according to studies. The mental fortitude to persevere in the face of adversity is an essential quality for athletes. Athletes can train their minds to overcome obstacles and keep their concentration during game-changing moments by focusing on the positive.

Similarly, exercise has a positive effect on mental health that goes beyond just physical changes to also improve emotional and cognitive well-being. Researchers have discovered that exercising regularly releases feel-good endorphins and neurotransmitters, which in turn alleviates depressive and anxious feelings. Both the athlete's quality of life and their ability to perform at their best under pressure are improved by these psychological advantages.

The connection between mental and physical health through exercise highlights the interdependence of the two in sports performance. By combining quantitative performance data with qualitative insights from athletes' actual experiences, this study aims to cover all

bases in its investigation of these interconnected variables. Our hope is that by bringing these three viewpoints together, we can better understand how mental and physiological variables interact to determine the results of athletic performance.

Sports practitioners, coaches, and players who are looking to improve their performance through integrated training methods can also benefit from the practical consequences that this research intends to offer. Our goal is to encourage a more comprehensive approach to sports management and training by showcasing successful methods for building mental toughness and maximizing physical fitness.

In conclusion, our study aims to provide light on the complex interaction between physical exercise, mental wellness, and athletic performance, thus contributing to the evolving debate on sports science. We hope that by learning more about these dynamics, we can help athletes improve their health and fitness while also increasing their chances of long-term success.

Psychological well-being and physical self-perception in exercise and sport

Sinyor et al. (1983), Pate et al. (1995), Scully et al. (1998), Biddle et al. (2000), Yiannakis et al. (2001), and Edwards (2002) (Sinyor et al., 1983; Pate et al., 1995; Scully et al., 1998; Biddle et al., 2000; Yiannakis et al., 2001; Edwards, 2002) have all demonstrated that regular exercise and sport can be beneficial to a person's psychological well-being. It was discovered that members of health clubs who exercised on a regular basis had better psychological health than those who exercised on an irregular basis (Edwards, 2003). It has been discovered that activities such as swimming, yoga, and fencing (Berger & Owen, 1998), as well as rugby (Maynard & Howe, 1987), karate, weight training, and jogging (McGowan et al., 1991), all contribute to an improvement in participants' psychological well-being. Additionally, Krawczynski and Oszewski (2000) were able to demonstrate the benefit of a physical activity program on the psychological well-being of individuals over the age of sixty. This was accomplished through the use of a longitudinal study.

The term "sport" is commonly used in the current world of competitive as well as recreational sports to refer to "all types of physical activities." These activities can include participating in casual or organized sports with the intention of enhancing one's physical and mental well-being, enhancing one's social relationships, or achieving success in various level competitions.

Motivation

Throughout the course of human history, physical activity has played a significant part in ensuring human life. This is because, in ancient societies, the concept of survival of the fittest "motivated" individuals to maintain their physical fitness in order to confront the challenges that nature presents. The passage of time has resulted in the incorporation of sporting activities into human civilization, with the goal of maintaining a higher level of physical fitness and strength (Kamlesh and Sagral 1981). The concept of motivation has been investigated in a variety of ways, both formally by psychologists and informally by educators. (Ormrod, 2012, page 426) defines motivation as an internal condition of our mind that arouses us to take action, maintains our engagement in a variety of activities, and is also responsible for driving us in a particular path. In a broad sense, motivation is defined by

Broussard and Garrison (2004) as "the attribute that makes us move to do something or not to do something." According to Guay et al. (2010), the term "motivation" refers to "the reasons underlying that behavior."

There are three distinct types of motivation that can be distinguished from one another: (a) internal motivation, (b) extrinsic motivation, and (c) impersonal motivation. When it comes to motivation, the first type is known as intrinsic motivation. According to Gill (2005, page 80), this type of motivation is defined as the "internal drive that people have to participate or to perform well in any sport" (Honeybourne, 2005). Gill's discussion of an internal drive may be broken down into three distinct components: the need to know, the desire to accomplish, and the desire to feel stimulation. As stated by Cox (2007), the knowledge component of intrinsic drive is a reflection of the urge to acquire different abilities. There is a type of motivation known as intrinsic motivation, which is fueled by one's own personal delight, interest, or pleasure. The authors Deci et al. (1999) made the observation that "spontaneous satisfaction, which is inherent in an effective volitional action, is primarily responsible for energizing intrinsic motivation and also for maintaining the activities." It is seen in activities such as playing games and pursuing challenges, which are frequently carried out by individuals in order to obtain rewards from outside sources. Extrinsic motivation is the second sort of motivation that can be achieved. Honeybourne (2005) provides a definition of extrinsic motivation, which states that "the environmental or external motives are responsible for the drive." With regard to the concept of self-determination, extrinsic motivation is comparable to that of intrinsic motivation. Extrinsic motivation can be broken down into four distinct categories, as outlined by Decia and Ryan (1991): external regulation, injected regulation, identified regulation, and integrated regulation. Amotivation is the third form of motivation, and it is the state that an athlete is in when they have very low levels of motivation towards any given endeavor. According to O'Connor and Vallerand (1989), the athlete will not exhibit any behavior that is based on either intrinsic or extrinsic factors. From a sporting point of view, an athlete who lacks motivation will be unable to comprehend the reasons behind his participation in the activity. Furthermore, it is worth noting that he will not receive any compensation for his involvement in physical activity or his profession. According to Pelletier et al. (1995), the Sport Motivation Scale (SMS) was developed with the purpose of evaluating the level of motivation that sportspersons have towards their sport, within the framework of self-determination theory. When asked, "Why do you practice your sport?" all of the subjects who were chosen to participate in the study stated the extent to which they adhered to the 28 reasons that were listed for why they participated in their activity. The explanation for the report is based on their own personal circumstances. Afterwards, the participants' sports motivation was evaluated by employing a seven-point Likert scale, which ranged from a score of one (indicating that the means do not match at all) to a score of seven (indicating that the means correspond perfectly).

1.3 Anxiety

There is a correlation between anxiety and a personality trait that is characterized by a stress syndrome of responses in response to specific conditions. The personality of an individual is accountable for making him prone to stress [Simpson, 1980]. There are events that act to

trigger the anxiety state, and it is the personality of an individual that is responsible for making him that way.

Martens, R. et al. (1990) devised a questionnaire called the Sports Competition Anxiety Test (SCAT) with the purpose of determining the level of anxiety that a person experiences when participating in sports. There are fifteen questions in total. The participant is required to select one of the following three responses: "rarely," "sometimes," or "often."

Anxiety is a mental condition that occurs when a person reacts with tension in order to confront a scenario that has either already taken place or is likely to take place in the near future. The sources of anxiety are the individual's concerns regarding an event, the occurrences of the event, and the consequences of the event in general. The demands that are imposed on an individual are the source of stress, and in order to cope with those demands, the individual must participate in some form of coping behavior [Jones, 1990]. On the other hand, anxiety can be divided into two categories: either it is focused on the body or it is more concerned with the mind. Both mental and physical worries and fears are included in the symptoms of somatic anxiety. It is a form of emotional disturbance, to put it in more straightforward terms. When participating in competitive sports, people who are athletes, like those in other populations, are more likely to experience anxiety. According to Kamlesh M.L. (1998), anxiety is one of the most common factors that hinders good performance. This is because anxiety quietly hinders performance by diverting the attention of sportspeople onto other things. Comparison of the levels of anxiety experienced by individuals who participate in contact sports and those who do not participate in contact sports was the objective of the current investigation.

Mental Toughness

The concept of mental toughness is defined as "the ability to perform consistently towards the best of your talent and sporting skill which is not affected by the competitive circumstances," as stated in the book "The New Toughness Training for Sports" written by Jim Loehr (1986) of the Human Performance Institute.

Mental toughness is a very important psychological quality that is regarded to be very crucial for excelling in performance and wellbeing across a variety of life domains. When it comes to the realm of sports, mental toughness is a word that is widely employed by sport psychologists, coaches, and sportspeople when addressing the psychological aspects that are responsible for a player's success or failure in a game {Gucciardi et al., (2008); Tristan et al., (2010)}.

An individual who participates in athletics was given the questionnaire that was developed by Goldberg, A. (1998) in order to evaluate their mental toughness. The examination is comprised of thirty questions that pertain to the mental toughness of a sports person. The participants responded to these claims by placing a "x" mark in the column labeled "true" or "false." The purpose of these instruments is to investigate the responses of athletes under various conditions and to evaluate the following sub-variables of mental toughness:

- Ability to handle pressure

- Concentration
- Confidence
- Motivation
- Rebound ability

There is a direct connection between being mentally well and performing well in sports. There are a great number of subcategories for each individual facet of athletic performance. Some of these divisions are based on physical certainties, while others tend to be fairly flexible. One of the factors that can have an effect on athletic performance is mental health. This is due to the fact that mental health is the most all-encompassing and indicative of those aspects of performance that require the most concentration and the most amount of time to prepare for. Concerns about the mental health of athletes have recently gained attention as a result of the decisions made by Naomi Osaka, Simone Biles, and Ben Stokes to withdraw from their individual contests in order to place a higher priority on their mental health. There is a close connection between one's mental health and their physical performance. Wrestler Vinesh Phogat stated in an interview with The Indian Express that she had a difficult time falling asleep and frequently remained awake for days at a time while she was diagnosed with depression. This occurred throughout the period of three months that she was diagnosed with depression in 2019.

Mental health

To keep one's mental health in good standing, it is necessary to understand how to deal with stress and to acquire coping techniques. According to the United Nations World Health Organization, mental health is "a condition of well-being in which each individual fulfills his or her potential, can cope with everyday stressors, is able to work creatively and fruitfully, and is able to contribute to her or his community." "10" The definition of mental health in the context of athletics that was supplied by Wylleman et al. (2015) is as follows: "a state of successful performance or mental function, resulting in productive activities, rewarding relationships with other people, and the ability to adapt to change and manage with adversity."

Anxiety

Performance in sports can be negatively impacted by anxiety in a variety of ways, including cognitive, behavioral, and physiological. In addition to stress and hopelessness, anxiety was ranked as one of the top three mental health concerns that sportsmen face."Three" Researchers found an inverse relationship between trait anxiety and athletic performance in a meta-analysis, which is a synthesis of the findings of numerous scientific studies. One of the studies measured race times in distance runners, and another looked at performance errors after a competitive motor task. Both of these studies were conducted by researchers. Consequently, this suggests that anxiety may have an effect on performance regardless of the sort of athletic activity or the sport that is being performed. The executive function, sensory processing, and the ability to select relevant information are all negatively impacted by the alterations in the attention system that are brought on by anxiety. These abilities are essential

for achieving exceptional academic accomplishment as well as success in athletic competition.

1.7 Depression

28 percent of female student-athletes and 21 percent of male student-athletes reported "feeling depressed" in the preceding year, according to a research. According to the responses of student athletes, depression is among the top three mental health concerns they are concerned about, along with stress and worry. Studies have shown that athletes with higher levels of talent are more likely to experience feelings of depression than athletes with lower levels of talent. This is an important study to take note of. There are many different ways in which symptoms of depression can have an effect on function. Sadness can have a number of consequences, one of which is that it may appear practically difficult to leave the house and carry out everyday activities. The fact that student-athletes typically have both major and daily responsibilities makes this an especially difficult situation for them to deal with. Changes in appetite and weight are two symptoms that may be associated with depression. Sixth, the performance of athletes is strongly dependent on their weight and nutrition, and the poor nutrition that can be caused by depression can have a significant negative impact on performance. One such sign of depression is the disappearance of interest in activities that were once liked by the individual. Because they are not involved in practice, healthy habits, or competition, athletes who are not passionate about their sport do not perform as well as they could. Additionally, those who suffer from depression may walk or speak more slowly than usual, in addition to experiencing feelings of exhaustion, a lack of vitality, and atypical sleep habits. obligations, this presents a fair amount of difficulty. Changes in appetite and weight are two symptoms that may be associated with depression. "Six"

1.8 Eating Disorders

The term "eating disorders" refers to a group of major mental health conditions that can sometimes result in severe physical and mental complications. In the realm of athletic care, the prevention of eating disorders is a persistent issue for athletic trainers, coaches, and other individuals involved in the care of athletes. There is a great deal of difficulty in determining the precise number of athletes who struggle with eating disorders, and the data may not be valid.² and ⁷ There are a variety of possible explanations for this phenomena. Athletes are usually praised for demonstrating great work ethics and making progress in their sporting careers when they prioritize leading a healthy lifestyle over their typical training routines. As a consequence of this, it becomes difficult for academics and other individuals involved in the treatment of athletes to identify problematic eating patterns and eating disorders. Even more concerning is the fact that a significant number of individuals who frequently suffer disordered eating do not even report their behavior or seek therapy.⁷ In spite of this, studies have shown that those who are in their college years and athletes are at a greater risk of having eating disorders.

1.9 Dealing with stress

Once you have a better understanding of the roots of your stress, the next step is to learn how to deal with it. An excellent place to begin is by becoming conscious of the mental triggers that you experience. As stated by Dr. Graef, the acronym P.E.R.F.E.C.T. refers to activities that provide assistance to athletes in the management of excessive stress and the restoration of enjoyment associated with both sports and life. P stands for "positive self-talk," E stands for "embracing adversity," R stands for "reverse engineering," and F is for "focusing on the now."

E – Evolve; C – Chill Out and T – Talk It Out

1.10 Dealing with Anxiety

The use of specific tactics that assist athletes to relax and feel at ease in the situation that is causing them to feel anxious is a healthy way for athletes to get through their anxiety. Reframing, engaging in enjoyable hobbies, taking care of one's physique, keeping a positive outlook, laughing, practicing relaxation techniques, conversing with people, and maintaining a positive outlook are just a few examples.

1.11 Dealing with Depression

Therefore, in order to cultivate a healthy culture that allows athletes to better express their feelings, it is necessary for them to feel safe expressing their feelings in the first place. Keep your attention focused on the tasks that need to be completed, set reasonable expectations for yourself, remember the reason you started, and seek advice from professionals.

1.12 Steps to be taken to improve mental health

It is because of our one-of-a-kind cognitive talents that humans have the ability to possess knowledge. We are able to take in enormous volumes of data, perform analysis on it, and then base our decisions on the findings of that analysis. Because of this, we are able to identify patterns, anticipate the implications of our actions, and form inferences about the circumstances that surround us. In addition, we possess social intelligence, which enables us to have a deeper understanding of both ourselves and others, as well as the ability to think abstractly about ideas such as morality and justice.

The concept of winning and losing is important to sports, yet it can be challenging to acknowledge defeat. Gagan Narang, a shooter who competed in the shooting competition at the London Olympics in 2012 and earned a bronze medal, admitted that it may be challenging to overcome obstacles, but that it is the only way for an athlete to progress."¹³

Aerobic and Muscle-Strengthening Physical Activity

Aerobic physical activity and muscle-strengthening physical activity are the two types of physical activity that are classified by FYSS among the various types of physical exercise. The majority of the energy that is produced during aerobic activity, which includes both the physical activity that occurs in everyday life and the exercise training that is performed, is produced through oxygen-dependent pathways. When it comes to physical activity, aerobic activity is the sort of activity that is often connected with endurance, fitness, and the most significant health advantages. Strength training, also known as resistance training, is a type of physical exercise or training that is primarily designed to maintain or enhance various forms

of muscle strength as well as increase or maintain muscle mass. In common parlance, this type of physical activity is referred to as "strength training" or "resistance training." There are situations when a different category is defined: Engaging in physical exercise that strengthens muscles is essential for the preservation or enhancement of coordination and balance, particularly in the elderly population. According to these criteria, activities that strengthen muscles largely engage the anaerobic (without oxygen) energy systems of the body, and the participation of these systems grows proportionally as the intensity of the activity increases.

It is possible to express the intensity of exercise using either absolute or relative terminology. Absolute intensity refers to the amount of physical work performed, which can be measured in terms of Watts (W), kilograms (kg), or metabolic equivalent (MET). On the other hand, relative intensity is measured in relation to the individual's maximum capacity or physiology, such as the percentage of maximum heart rate (%HR), rate of perceived exhaustion (RPE), weight per kilogram (W kg⁻¹), or relative oxygen uptake in liters per minute per kilogram (VO₂). The intensity is frequently stated in subjective terms when it comes to recommendations to the general public. For example, "makes you breathe harder" is used to describe moderate intensity, and "makes you puff and pant" is used to represent vigorous intensity. Despite the fact that objective criteria like heart rate and accelerometry will be able to capture the intensity of exercise, it is possible that these criteria will not be able to differentiate between the many forms of physical activity behaviors. Low intensity is defined by FYSS as 20%–39% of VO₂max, less than 40% heart rate, and 1.5–2.9 METs. Moderate intensity is defined as 40%–59% of VO₂max, 60–74% heart rate, 3.0–5.9 METs. Vigorous intensity is defined as 60%–89% of VO₂max, 75–94% heart rate, and 6.0–8.9 maximal energy expenditures. A patient suffering from heart disease may have a maximal capacity of less than three MET, while an elite athlete may have a maximal capacity of more than twenty MET. Absolute intensity, on the other hand, might vary substantially between individuals.

How does the Body Adapt to Physical Activity and Training?

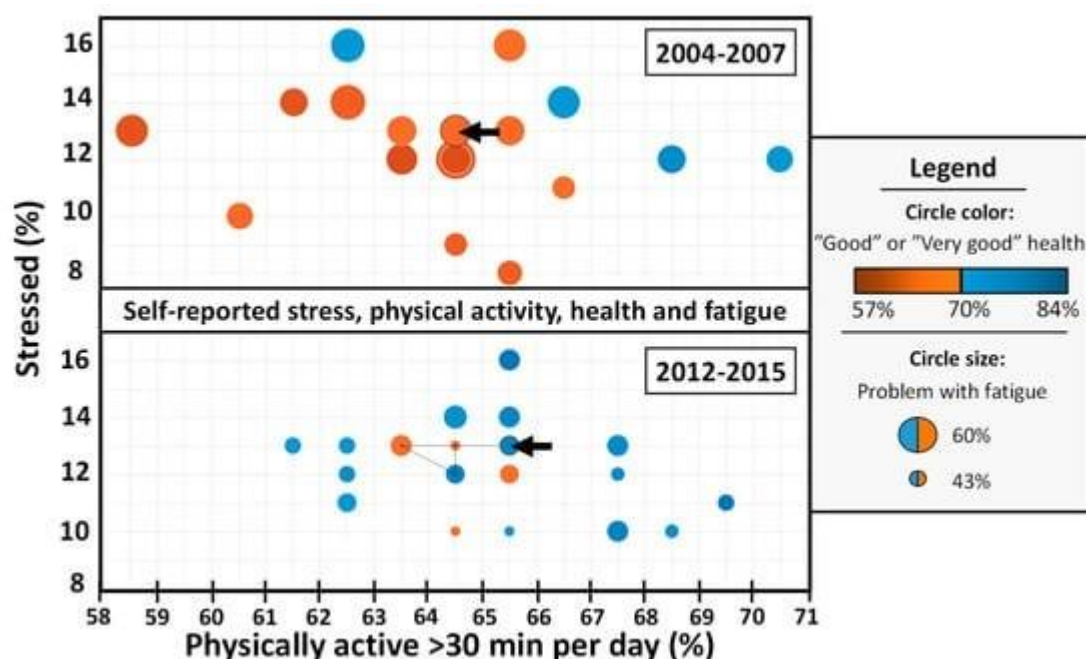
The physiological process of adaptation to physical exercise and training is a complicated one; but, in the context of this study, it may be simplified by a fundamental basic principle known as "the general adaptation syndrome (GAS)". In accordance with this theory, physical activity is said to disrupt the physiological equilibrium of the body, which the body subsequently endeavors to restore, all within the context of a dose-related response connection. According to the overload principle, if the intensity of the exercise is too low, the required physiological adaptations will not be induced since overload will not be reached. On the other hand, exhaustion and perhaps overtraining will occur if the intensity of the activity is too high. Therefore, in order for adaptation to take place, it is necessary to create stress that is higher than the typical level, followed by enough recovery periods that allow for the restoration of physiological equilibrium. The functioning of the affected tissues and systems are impaired during and soon after physical exercise or training, which manifests as a temporary decline in performance as you are experiencing fatigue. It is necessary to perform repeated cycles of proper overload and recovery in order to gradually develop performance capacity [40]. In actuality, favorable results can be observed after a relatively short length of

time, which in a few weeks; however, improvements that are more substantial can be observed if the training is sustained for a longer period of time.

As a general rule, it is presumed that all individuals are capable of adapting to physical activity and exercise; however, the degree of adaptation is contingent upon a wide range of factors, such as age, heredity, the environment, and diet. The hereditary component, sometimes known as genetics, might be the most important part in adaptation. The degree of adaptation is also dependent on the manner in which the individual in question trained in the past; an athlete who has been well-trained typically does not experience the same level of relative improvement as an athlete who has not been trained. Even while it is generally believed that training is specific to mode, intensity, and duration, there are certain overlaps that occur. It has been discovered, for instance, that strength training in certain individuals adds to a reasonably considerable favorable influence on health and endurance, effects that were previously known to be predominantly related with aerobic exercise [46,47]. If the overload principle is employed in a manner that is excessively forceful in relation to an individual's capacity for adaptability, it has the potential to have negative consequences, such as decreased performance, injury, overtraining, and disease [10]. Training is a commodity that constantly needs to be refreshed; otherwise, you will eventually lose the performance increases that you have made [48], while certain capacities, such as muscle memory, appear to be retained throughout one's entire life [49].

Health Effects of Physical Activity and Training

It is necessary for human biology to have a specific amount of physical exercise in order to keep one's health and well-being in excellent condition. In order for the body to adjust to a lifestyle that involves less physical exercise, it would take many generations. There is a high degree of similarity between the physical activity requirements of people living today and those of people living 40,000 years ago [50,51]. This is equivalent to walking around 19 kilometers per day for a man who weighs 70 kg on average, in addition to the physical activity that they engage in on a regular basis [52]. A decline in daily physical activity is observed in the majority of individuals, whereas an increase in planned, deliberate exercise and training is observed [19,53]. The unfortunate reality is that the average daily energy intake is growing at a faster rate than the daily energy output, which is resulting in an energy excess. There are a number of reasons for the growing number of people who are overweight, and this is a significant factor that contributes to a variety of health issues [54]. The combination of higher caloric consumption and a more sedentary lifestyle, which is defined as not meeting the necessary level of physical activity, has the effect of impairing both physical and mental skills while simultaneously increasing the risk of disease. In spite of this, Swedes, for instance, appeared to be just as physically active and anxious as they were in 2004, but they had superior overall health in 2015 (Figure 1). With a similar level of physical activity (about 65 percent of the population said that they engaged in at least 30 minutes of daily physical activity) and stress (around 13 percent of the population was stressed), the Swedish population in 2012–2015 reported better overall health (more county-dots are blue) and less weariness (smaller county-dots) compared to the period of 2004–2007.



The findings presented in Figure 1 may be partially explained by a polarization of the individuals who engage in physical activity: A similar center tendency (mean/median) can be seen throughout the population, with some people being extraordinarily active while others being relatively sedentary. Due to the fact that neither physical activity nor mental stress are altered, but health is, the result suggests that other elements must be more significant to our general health and exhaustion. Recently, a national study of Swedish children aged 11 to 15 years old came to the conclusion that this age group spends the majority of their awake time sedentary, meaning that they sit, stand, or move relatively little [55]. From 67 percent for 11-year-olds to 75 percent for 15-year-olds, the percentage of time spent sedentary increased with increasing age. According to the findings of the study, the amount of time spent doing nothing is evenly spread over the week for people of all ages, with school time, leisure time, and weekends respectively. In addition, individuals who experience stress linked to school have a greater amount of time spent inactive, both overall and during school hours, in comparison to individuals who experience less stress related to school.

CONCLUSION

Research shows that athletes' mental health, physical exercise, and field performance all affect each other. This study examined how proactive mental health activities and disciplined physical training might improve various athletic performance. Mental and physical preparation for competition improves resilience, concentration, and performance. Regular exercise improves self-control, resilience, and happiness in addition to physiological benefits. Goal-setting, psychological resilience, and mindfulness help athletes face the mental and emotional demands of competitive sports. This study's mixed-methods approach, which combines quantitative performance indicators with qualitative athlete insights, illuminated the intricate relationship between mental and physical factors. Athletes' stories have highlighted the revolutionary impact of integrated training approaches, emphasizing the need for a comprehensive approach to training and performance development. The study emphasizes the

importance of including mental health into sports training programs alongside physical conditioning. A balanced approach to physical and mental resilience is needed to build sports success and long-term wellness. The dynamic field of sports science will benefit from future research on how to maximize player potential. Future research might examine sports-specific mental health interventions and integrated training's long-term effects on athletes' achievement and well-being. Finally, this research promotes a paradigm shift toward all-encompassing athlete development and increases our understanding of sports performance's complexity. We believe that raising awareness of the link between exercise and mental health will inspire athletes to build environments that promote peak performance and long-term health and happiness.

REFERENCES

1. Ryan et. al. (1997). Psychological preparation and athletic excellence (New York; Ithaca publishers).
2. Ryan R.M. & Deci E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 68-78.
3. Ryan R.M., & Deci, E.L. (2000a). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*: 25, 54- 67.
4. Ryan (1991). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology* 57: 749- 761.
5. Sameer, E. Bagirathi, et. al. (2010). Comparative study of the psychological profiles of Rajasthan and Madhya Pradesh national & international level male cricket players. *Asian Journal of Physical Education and allied Sciences in Sports*. 9.
6. Samira, M., Mohammad, H., Samaneh, I. (2012). A study on comparison of athletic participation motivation of the athletes of contact and con contact sports”, *Scholars Research Library, ABR* 3(2): 858-862.
7. Sarason, S. B. & Sarason, B.R. (1990). Test Anxiety in H. Leitenberg (Eds.), *Handbook of social and Evaluation Anxiety*, New York: Plenum.
8. Dinoff, A.; Herrmann, N.; Swardfager, W.; Liu, C.S.; Sherman, C.; Chan, S.; Lancot, K.L. The Effect of Exercise Training on Resting Concentrations of Peripheral Brain-Derived Neurotrophic Factor (BDNF): A Meta-Analysis. *PLoS ONE* 2016, 11, e0163037.
9. Kelley, G.A.; Kelley, K.S. Exercise and Sleep: A Systematic Review of Previous Meta-analyses And A Meta-analysis: 284 Board #121 June 1, 9: 30 AM - 11: 00 AM. *Med. Sci. Sports Exerc.* 2016, 48, 68–69.

10. Kandola, A.; Hendrikse, J.; Lucassen, P.J.; Yucel, M. Aerobic Exercise as a Tool to Improve Hippocampal Plasticity and Function in Humans: Practical Implications for Mental Health Treatment. *Front. Hum. Neurosci.* 2016, 10, 373.
11. Smith, G.E. Healthy Cognitive Aging and Dementia Prevention. *Am. Psychol.* 2016, 71, 268–275.
12. Shaffer, J. Neuroplasticity and Clinical Practice: Building Brain Power for Health. *Front. Psychol.* 2016, 7, 1118.
13. Ryan, S.M.; Nolan, Y.M. Neuroinflammation negatively affects adult hippocampal neurogenesis and cognition: Can exercise compensate? *Neurosci. Biobehav. Rev.* 2016, 61, 121–131.
14. Boraxbekk, C.J.; Salami, A.; Wahlin, A.; Nyberg, L. Physical activity over a decade modifies age-related decline in perfusion, gray matter volume, and functional connectivity of the posterior default-mode network-A multimodal approach. *Neuroimage* 2016, 131, 133–141.
15. Dhabhar, F.S. Effects of stress on immune function: The good, the bad, and the beautiful. *Immunol. Res.* 2014, 58, 193–210. [Google Scholar] [CrossRef]
16. Brodin, P.; Davis, M.M. Human immune system variation. *Nat. Rev. Immunol.* 2017, 17, 21–29.