

Physiotherapy's Impact on an Athlete's Physical and Mental Well-being: A Review

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Abstract

Physiotherapists are essential in helping athletes with physical and psychological issues connected to their activity. Effective treatment and the formulation of athletes' expectations regarding the restoration of health issues require a solid interaction between the physiotherapist and the athlete. Thus, when designing a rehabilitation program, it is imperative to take the expectations of the athletes with the specific problem into consideration. Since the dawn of civilization, physiotherapy methods have been used as a therapeutic modality in all cultures, and their application in athletic contexts is well-established. Nonetheless, there is a dearth of empirical data about the physiological, psychological, and therapeutic benefits of widely applied physical therapy methods. This study examines both the most recent literature on the application of physiotherapy to athletes and the earlier and contemporary research on the subject. There was conflicting information on the best method and duration of application, and there was little consensus in English sources regarding the effectiveness of physical therapy. Clearly, further research is needed to determine the function of physiotherapy, a time-consuming approach used by physiotherapists, in order to settle certain controversial concerns surrounding this treatment modality and to support its usage.

Keywords: Sports, physiotherapy, mental and physical health, athletes

INTRODUCTION

Sports and exercise physiotherapists assist individuals of all ages and skill levels in preventing and treating physical problems and injuries related to sports and exercise. These specialists provide evidence-based advice for safe participation in physical activities. Moreover, they promote an active lifestyle to help individuals maintain and improve their quality of life. Athletes of all skill levels can greatly benefit from the assistance of sports and exercise physiotherapists in boosting their performance [1–6]. According to Grant *et al.*, "The primary role of a sports physiotherapist is to treat and rehabilitate physical issues while also enhancing performance through various prevention, maintenance, and recovery strategies", is how the profession is best described [7].

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PHYSIOTHERAPY FOR PHYSICAL HEALTH

Becoming an athlete is demanding and taxing, both physically and mentally, which is why only a few individuals worldwide can truly call themselves athletes. Whether you consider yourself an athlete or simply enjoy participating in sports occasionally, one thing is certain: your body is always at risk of injury. Everyone encounters different aches and pains occasionally, particularly as we get older. However, if you are active and involved in sports or any other physical activity, you are at a significantly higher risk of injury and thus need to take

preventive measures to stay as fit, healthy, and pain-free as possible. Sports physiotherapy is one of the most effective methods for managing pain, enhancing athletic performance, and more. Therefore, we will now explore the role of physiotherapy in the physical and mental health of athletes.

A sports physiotherapist is a qualified expert with advanced skills in promoting safe physical activity, offering guidance, and tailoring rehabilitation and training interventions to prevent injuries, restore optimal function, and improve sports performance for athletes of all ages and skill levels, all while adhering to the highest professional and ethical standards. These physiotherapists work in various settings, including clinics and private practices, often assisting athletes who engage in sports recreationally. They also support individuals involved in social and club sports as well as training sessions. When working with elite athletes in competitive and professional sports, sports and exercise physiotherapists frequently collaborate with other healthcare professionals, coaches, strength and conditioning staff, and support personnel, and often travel with these athletes or teams. Additionally, they are actively involved with various athletic organizations to coordinate physiotherapy services, develop injury prevention and rehabilitation plans, and conduct injury surveillance [8].

Physiotherapy on Physical and Mental Health

Some researchers outline the advanced skills of sports physiotherapists to include promoting safe physical activity, offering guidance, and tailoring rehabilitation and training interventions. These efforts aim to prevent injuries, restore optimal function, and enhance sports performance for athletes of all ages and skill levels. They also ensure that an exceptionally high standard of professional and ethical practice is upheld. The physiotherapist's functions might vary and depend on:

- The sport they play.
- Their particular position on the team.
- The total level of performance in the sport, whether it is amateur or expert, local or worldwide.

"According to the International Federation of Sports Physical Therapy (IFSPT), sports physiotherapy is an expanding field in societies that encourage an active lifestyle and athletic achievement. The Sports Physiotherapy for All (SPA) manual describes it as "the effective professional conduct and the integration of specialized knowledge, skills, and attitudes essential for practice as a sports physiotherapist". As part of its mission, Sports Physiotherapy for All has identified 11 key competencies that are essential for sports and exercise physiotherapists. Accompanying such proficiencies are a set of rigid competencies or prerequisites that must be maintained. These skills are related to the several overlapping duties that exercise and sports physiotherapists do.

Physiotherapy in Mental Health

Exercise prescription is recognised by psychiatrists as a therapeutic approach for a broad range of intellectual health disorders. Despite these advancements, there can still be a stigma associated with mental health issues, which could prevent some people from engaging in physical activity or sports. The most prevalent cause of impairment in the nation is mental health issues, which are widespread. Here is the latest information on the prevalence of common mental health issues in the country [9].

Mental Health Conditions

- Depression;
- Generalized anxiety disorder;
- Panic disorder; and
- Mixed anxiety and depression.

The Faculty of Sport, Exercise, and Physiotherapists has created recommendations for medical professionals, athletes, educators, parents, and carers regarding the benefits of physical exercise in the treatment of mental illness.

The role of physical activity in managing and preventing mental health issues: "A positive physical, social, and mental state" is how the government defines well-being. The ability to reach one's full potential, work creatively and successfully, build solid, supportive relationships with others, and give back to one's community are all components of mental health. It also touches on aspects of lives like optimism and feelings of fulfilment. Participating in physical exercise with others is one approach to safeguard and improve our mental health. It is generally established that engaging in physical exercise positively impacts mental health and some mental illnesses. Regular physical activity helps to reduce and improve anxiety and stress levels.

Participating in physical activity can prevent mental health problems and enhance the quality of life for those already affected. When treating depression, physical exercise can be utilised either on its own or in conjunction with medicine and/or psychological therapy. There is strong evidence indicating that people who participate in daily physical exercise experience a 20–30% reduction in depression. When compared to antidepressants, exercise has fewer side effects and may be viewed less stigmatised as a form of treatment when compared to psychotherapy or counselling. There is little evidence that physical activity can assist alleviate medical anxiety and mental health issues, as well as lower anxiety and distress levels in those with moderate symptoms by 20–30%. There is strong evidence that physical activity lowers the risk of cognitive decline in humans, with those who engage in regular physical activity having a 20–30% lower risk of getting dementia. Furthermore, it seems that physical exercise lessens psychological issues that influence people's minds [10].

IMPORTANCE OF PHYSIOTHERAPY SPORTS

Seeing a certified sports injury physiotherapy specialist will be one of the best decisions you will ever make, regardless of whether you are an athlete recovering from an injury, looking to live a flexible, fit, and healthy lifestyle, or actually wanting to improve your everyday athletic performance. This section will explore in depth several significant advantages of seeking advice from a sports physiotherapist, including the gradual and durable restoration of the body's muscles. As an athlete, your body is subjected to a great deal more stress than that of the typical person, and your muscles must endure a great lot of hardship in order to perform at a higher level. Our muscles are pressed upon and harmed whenever we engage in physical activity or exercise, which is why they feel so sensitive and painful after a demanding workout or physical activity session. The best part about sports physical therapy is that the physiotherapists are highly skilled and well-trained, and they know how to treat most of the athletes who seek their help. Instead, then focusing all of their attention on the area of the body that is most severely affected, those specialists will look at the circumstances that may have first caused the injury or suffering. Consequently, the entire body benefits instead of just a few muscles or areas. Through methods like sports massage therapy, various postures, strengthening exercises, stretching routines, and more, the body can progressively heal itself. This is one of the key reasons physiotherapy is highly advantageous for people recovering from particularly intense exercise or physical activity [11].

- Full-body benefits.
- Pain management.
- Chronic health issues also can be handled and addressed.
- Improved flexibility.
- Excellent for rehabilitation.

Physiotherapy for Mental Health

When discussing athletics and sports, many people discover that their areas of expertise are solely physical rather than mental. It is evident that the mind is just as essential to physical exercise and activity as the body, which is why it is crucial to look after your mental health and adhere to the strategy. Exercise and intense physical activity can adversely affect a person's mental health and overall well-being, particularly when a severe and debilitating injury occurs. Athletes and sportspeople frequently find themselves experiencing anxiety, mood swings, sadness, and other mental health issues. Another reason why sports physical therapy may be so helpful is that dealing with an injury may be emotionally

taxing, especially when it means being prevented from engaging in activities you enjoy for weeks or months. Experienced physiotherapists will comprehend your situation and can offer various coping strategies to address the psychological aspects. They will give you a good atmosphere and an excellent perspective on things, which will enable you to deal with whatever it is that you are going through at that particular moment in time more effectively. Your physiotherapist will be aware of the importance of having the correct mindset and may assist you in reaching your goals in terms of both physical and mental well-being [12].

SIGNIFICANCE OF THE STUDY

There are very few people in the world who can truly claim to be athletes due to the intense physical and mental demands and strains associated with being an athlete. Whether you consider yourself to be an athlete or not, or whether you would like to participate in sports occasionally, one thing is certain: your body is always vulnerable to problems related to psychological and physical fitness, especially as we live longer and age. A researcher will find preventions and programmes for reducing the kind of problems that athletes may encounter in their lives in order to address this kind of issue. It is going to improve the athlete and sportsperson overall.

OBJECTIVE OF THE STUDY

The study's primary goal is to pinpoint the gaps in knowledge from the earlier literature evaluation that pertain to the issue statement, "Role of physiotherapy on physical and mental health of the athlete".

REVIEW OF RELATED LITERATURE

Sports significantly enhance people's lives. We benefit from those diverse pursuits in a number of ways. First off, those who partake in it could have enjoyable downtime. Playing sports improves one's skills. It is a form of entertainment that also helps you develop your mental clarity, physical stamina, and emotional stability. It gives a person's life a different and more meaningful purpose. A few well-known people have strong devotion to sports. Athletes usually put a great deal of stock on their abilities to compete and execute. Since current competitive sports have unquestionably surpassed historical athletic activities in terms of usage, athlete energy, and consequently the degree of priority placed on success, such mishaps are often devastating to persons. The recognition of all of its manifestations is gradually growing. The population enjoys a wide range of leisure activities, from hiking and strolling to surfing, badminton and tennis, cricket, and hockey. It is essentially the domain of choice for professional athletes. Many participants realize that challenges and injuries are inevitable in these activities. Extreme activities that involve high levels of physical stress include rugby, bicycle acrobatics, leaping, and browsing. Physical health problems may affect athletes of all ages, including young football players, elderly golfers, Olympic athletes, and "weekend warriors"; this is because injuries do not discriminate. Furthermore, dancers experience significantly more injuries. When expressed as damage expenses per hour of activity, badminton players experience physical injuries 85% of the time, while for runners and walkers, the figures are 65 and 21%, respectively, over the course of a year. The threat of damage is often ranked with the assistance of recreation. Not surprisingly, these evaluations indicate that the most violent sports are lacrosse and rugby, with about 30 injuries for every 1000 h of play. Roughly 14 accidents occur in basketball and squash for every 1000 h played. Walking and aerobic dancing are examples of high-intensity activities with higher injury rates, with 11 incidents per 1000 h. The study reports the number of injuries per 1,000 h for various sports activities as follows: alpine skiing (8), rowing machine use (6), treadmill walking or jogging (6), tennis (5), dance classes (5), resistance training with weight machines (4), resistance training with free weights (4), outdoor cycling (3.5), stationary biking (2), stair climbing (2), and walking (2). However, it is noted that most injuries in activities such as walking, bicycling, swimming, stair climbing, and motorcycling are attributed to "overuse" rather than unexpected accidents. One must simply adjust their training plans, perform regular warm-ups and cool-downs, and strengthen their muscles and joints to avoid injury during play. If we understand the true causes of injuries, excessive damage rates should likely significantly decline. Studies show that employing proper training techniques can reduce injuries by 25% [13].

A few studies show that the number of years involved in an activity and the likelihood of injury have an inverse connection. It is possible that newcomers to sports will sustain more injuries than long-time participants. Strength is crucial for reducing the risk of injury. Regular training makes athletes stronger, more experienced, and more coordinated than novices, all of which are highly helpful in reducing the risk of injury. Improved strength keeps muscles and connective tissues from being ripped apart by the recurrent stresses acting on them at a point of interest. It also protects and stabilises joints. 50% of the injuries are considered to be recurrent injuries, with the remaining injuries being considered to be new problems. That is undoubtedly the result of inadequate training and care. An injury is more than just a pain; it should be a warning that a bodily component is not robust enough to withstand the strain that sports-related activities put on it. The truth is that weaker parts of the body are often where injuries recur. Physiotherapists provide an amazing array of therapy modalities that have been tried and tested. Proper diagnosis and effective treatment are vital for the successful management and recovery of sports-related injuries. Athletes that are sidelined due to a recent injury or common issue might benefit from the experience of a specialised squad. A multidisciplinary team approach is appropriate since cross-referrals can also occur to rehabilitate the "whole" person rather than just the wounded portion. Regardless of their motivation to win gold medals or just for fun, athletes need access to both appropriate preventative training and healthcare. Allied health practitioners, including sport rehabilitators, have a lot to offer physically active individuals. Athletes can take the incorrect approach to treating and preventing health injuries due to ignorance. Certain athletes adhere to the 'ARI' philosophy, which consists of rest and icing. Athletes acknowledge that these treatments lessen the severity of an injury and that they are the "cure" for their sports wounds, but the truth is that ARI actually permits athletes to resume appropriate activities for a shorter amount of time, which eventually causes an injury to recur. It should come as no surprise that 50% of injuries are recurring! Those who participate in sports choose to strengthen rather than rest and apply ice to sensitive body areas. They should keep in mind that handling severe injuries successfully frequently affects success in submitting acute injuries and beyond since the athlete is prepared by medical specialists on the sport healthcare group for re-entry into the sport.

The sport rehabilitator should, to the greatest extent feasible, make sure that this system is functioning smoothly, provide both physical and psychological support, and maintain the athlete's best interests at some point in the process of returning to full play. The best way to treat injuries is to fully examine and address the underlying cause, which means taking a thorough medical history and doing a comprehensive biomechanical, gait, and posture assessment. It is crucial to take thorough notes in order to determine the circumstances, nature, behaviour, development of symptoms, and other details. This is frequently supported by a physical examination that follows a methodical approach. Similar research techniques will occasionally be required to validate the analysis. Dealing with symptoms without first addressing the underlying problem is no longer appropriate. Prior to the implementation of a specific treatment plan, a comprehensive assessment of all the factors influencing the patient's pattern of symptoms is necessary. Since prevention is clearly superior than treatment, the physiotherapist will always advise the patient on how to avoid having the injury reoccur when they resume their recreational activities. For example, in order to prevent a lateral epicondyle injury from repeating, an athlete recovering from one wants to strengthen their wrist extensor muscles. Extensor muscles are more prone to overuse since they are weaker than wrist flexor muscles. Similarly, a player recovering from a hamstring strain should strengthen and stretch the affected hamstring to ensure that the afflicted and uninjured sides have the same amount of flexibility and electrical power. Trainers and coaches were instructed to remember that exercise is essential to the healing process and that they wish to play a significant role in assisting their players in regaining full lower back health. Every phase of physical health problem management enables the athlete to recover from injuries and resume their previous level of performance in the sport. A physiotherapist can assist an athlete who has strained their ankle or torn their hamstring by providing the appropriate first aid measures. The RICE procedure should be followed by immediate relaxation of the damaged part, application of ICE treatment, compression of the injured spot using strapping, and elevation of the affected limb. This approach aids the athlete in managing

inflammation, and discomfort due to injury. It has the ability to quicken the healing process if done well. Only those with the appropriate first-aid training are qualified to handle serious injuries like bone fractures. Because they deal with sports injuries on a regular basis, physiotherapists are frequently the most effective individuals to analyse. Even orthopaedic surgeons may specialise on treating more well-known patients; thus, they are not always experts in sports injuries. The sports physical therapist will present a treatment plan for the fitness issues. The primary objectives of the initial treatment phase are to alleviate pain and facilitate the healing process. Additional physical sports will be part of the treatment when the pain and any swelling have subsided. Currently, the physiotherapist will focus on certain goals when it comes to athletics in order to help heal the athlete's issues. First and foremost, the most likely course of action is probably instruction on mobility and flexibility, followed by strengthening work thereafter. Often, this is the stage where the physiotherapist, coach, and athlete work together. Athletes can still train even after they have an injury; trade training is another option. It entails using unique teaching or training methods that do not emphasise the injury. Using alternate teaching approaches to address physical fitness levels is one of the main goals of the restoration method. For example, instead of jogging, athletes should try water walking while wearing a float belt, or cyclists can have faith that even if they are hurt, they will still be fit. Athletes can utilise the injury time as a chance to strengthen other parts of their body in addition to preserving aerobic fitness. Remember that just the wounded area has to be rested, not the body as a whole. For instance, a football player who has strained his groin might strengthen his legs, trunk, and upper body throughout the healing phase. In the modern period of return to full education, the physiotherapist may be able to suggest continuing when the athlete's discomfort has decreased and they have begun to fulfil their ambitions of strength and power. Normal schooling can then resume. The athlete and the therapist need to have open communication. It is important not to begin training too soon or too rigorously to prevent injuries from recurring. What they often fail to understand is that the absence of pain in an injured area does not necessarily indicate it has fully healed. Once the athlete is able to utilise the fitness issue portion, the athlete needs to gradually retrain the strength, coordination, and endurance of that part so that it can tolerate full opposition conditions once more. As a result, the goal of the rehabilitation procedure at this point has shifted from damage repair to full characteristic restoration. To accomplish this, the rehabilitation program must be customized to fit the specific requirements of the athlete's sport. Strength training activities for an injured athlete, for example, should include functional movements such as single-leg squats, jumps, and plyometric drills. A research void has been identified: The researcher has analysed over 50 papers, and this chapter includes quotes from over 25 evaluations. The most recent reviews were from 2018; the earliest appraisal dates back to 1981. Fewer research studies are conducted by foreign writers on the relationship between physiotherapy and sports performance, while more studies on the subject are conducted by Indian authors on the subject. The investigator of this study will review earlier research that has been completed by other researchers. The researcher has used medical information gleaned from several inquiries to highlight different facets of the same research in the past. The stringent requirements of this specific sport discipline regarding the impact of physical and psychological rehabilitation on players' assets. After a thorough analysis of the relevant literature, it was discovered that while research has been done on the impact of physiotherapy on sports, it has not been done on the relationship between physiotherapy and athletes' physical and mental health. There are very few different researches conducted at the same variables and their aspects in the physical training and sports domain.

Therefore, there are no prior accurate records for the same observation. Thus, the researcher developed the strategy, discussed it with the manual, studied empirical research papers or statistical reports, and chose a particular issue related to the impact of physical rehabilitation on the athletes' psychological and physical well-being, and arrived at the concept for formulating the investigation-related difficulty [14].

CONCLUSION

The present study concludes with a discussion on the function of physiotherapists in relation to the physical and psychological health of athletes involved in sports. For athletes to receive effective therapy

and have their expectations of fitness difficulties rehabilitation shaped, a strong athlete physiotherapist courtship is essential. Therefore, while designing a treatment application, it is crucial to take the troubled athletes' expectations into consideration. This promotes increased communication transparency between sports physiotherapists and all parties that need their services, directs the design of professional development programmes, and enables sports physiotherapists to demonstrate their skills and pinpoint areas that still require improvement.

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