

# Significance of Physiotherapy on Physical and Mental Health of Sports Person-A Review Paper

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## ABSTRACT

*Physiotherapists play a key role in sports problem related physical and psychology health of the sport person. A strong athlete physiotherapist relationship is necessary for effective treatment and shaping of athletes' expectations of health issue restoration. Hence, it is necessary to factor the problem athletes' expectations in structuring a therapy program. Physiotherapy techniques have been a therapeutic modality in all cultures since early civilization and has had a long tradition of use in the sporting context. However, there have been a paucity of scientific evidence of the physiological, psychological and therapeutic effects of commonly used Physiotherapy techniques. This paper reviews the early and more recent studies on the significance of Physiotherapy and also the more recent literature on its use on the sports person. Little agreement was found in English publications of the efficacy of Physiotherapy and there were contradictory findings as to the optimum technique and length of time of application. It is clear that the significance of physiotherapy a time consuming technique for a physiotherapist to perform needs to be evaluated further in order to resolve some contentious issues arising about this mode of treatment and to justify its use.*

**Keywords:** *Physiotherapy, Sports person, Mental and Physical Health.*

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## INTRODUCTION

Sports and Exercise Physiotherapists are involved in the prevention and management of physical problems and injuries resulting from sport and exercise participation at all ages and at all levels of ability. These specialized physiotherapists provide evidence-based advice on safe participation in sport and exercise. Furthermore, they promote an active lifestyle to aid individuals in improving and maintaining their quality of life. Sports and Exercise Physiotherapists also play a huge impact in helping athletes of levels in ability to enhance their performance. Grant et al. summarizes the benefits of the sports physiotherapist as "The essential significance of the sports physiotherapist is to provide treatment and restoration of physical problems and also to provide support for performance through various prevention, maintenance and recovery interventions."

**Physiotherapy for Physical Health:** Becoming an athlete is incredibly demanding and taxing, both physically, and mentally in the process, which is why there are so few individuals in the world who can truly class themselves as athletes. Whether you do consider yourself an athlete, or whether you simply like to engage in sporting activities every now and then, one thing that is for certain, is the fact that your body is constantly at risk of becoming injured. In reality, we all suffer with various aches and pains in the body every now and then, especially as we find ourselves growing older as time passes us by.

However, if you are active and involved in sports, or any other form of physical activity, you will almost certainly be far more at risk, and you will therefore need to take certain preventative measures and steps to help you stay as fit, as healthy, and as pain-free, as you possibly can. Sports physiotherapy for athletes is one of the most effective methods of managing pain, improving athletic performance and much more besides, which is why we'll be taking a more in-depth look at the significance of physiotherapy on physical and mental health of the athlete right now.

**Physiotherapist and sports:** A recognized professional who demonstrates advanced competencies in the promotion of safe physical activity participation, provision of advice, and adaptation of rehabilitation and training interventions, for the purposes of preventing injury, restoring optimal function, and contributing to the enhancement of sports performance, in athletes of all ages and abilities, while ensuring a high standard of professional and ethical practice.

Sports and exercise physiotherapists work in a wide variety of settings. Many work with active recreational athletes in private practice or clinic settings. They can also be involved in social and club-level sports and attend training sessions. Sports and exercise physiotherapists often work in the elite athlete setting in competitive and professional sports, working and travelling with elite individual athletes or teams, and integrating their services with other medical professionals, coaches, strength and conditioning personnel and other support staff. Sports and exercise physiotherapists are also actively involved within various sporting organizations to coordinate physiotherapy services, injury prevention, rehabilitation and injury surveillance programs.

**Physiotherapy on Physical and Mental Health:** Some researchers outline advanced competencies of the sports physiotherapist in the promotion of safe physical activity participation, provision of advice, adaptation of rehabilitation and training interventions, for the purposes of preventing injury, restoring optimal function, and contributing to the enhancement of sports performance, in athletes of all ages and abilities, while ensuring a high standard of professional and ethical practice. The benefits of the physiotherapist do vary and can depend on:

- The sport they are involved in
- Their specific role within the team
- The performance level of the sport, local level or international, amateur or professional.

The International Federation of Sports physical therapy (IFSPT) states that "sports physiotherapy is a growing specialization in cultures that strive to promote an active lifestyle and athletic excellence". The Sports Physiotherapy for All (SPA) describes "effective professional behavior and the integration of specific knowledge, skills and attitudes for the context of practice as a sports physiotherapist." As part of the Sports Physiotherapy for All project, eleven competencies have been identified that is required for sports and exercise physiotherapists. Along with these competencies are a set of specific skills or standards that needs to be upheld. These Competencies are related to the various overlapping impacts that the sports and exercise physiotherapist fulfil.

**Physiotherapy in mental health:** Psychiatrists recognize exercise prescription as a treatment modality for a wide range of mental health conditions. Despite this progress, there is still a stigma that surrounds people suffering with mental health conditions, which can act as a barrier to physical activity and participation in sport. Mental health problems are common and account for the largest single source of disability in the country. The latest prevalence, in country of common mental problems is shown below.

**Mental Health Conditions:**

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

The Faculty of Sport, Exercise and physiotherapists have produced their guides on the impact physical activity has in treating mental illness for health professionals, sports participants, schools, parents and guardian.

**Impact of Physical activity to prevent and manage mental health problems:** The government has defined wellbeing as 'a positive physical and social and mental state' (Department of Health, 2010). Mental wellbeing includes factors such as individuals' ability to develop their potential, work productively and creatively, build strong and positive relationships with others and contribute to their community. It also involves areas of life such as feelings of satisfaction, optimism and self-esteem. One way to enhance our mental wellbeing and protect our mental health is through participating in physical activity. Physical activity has been shown to have a strong and positive influence on mental wellbeing and some mental illnesses. Participation in regular physical activity can increase self-esteem and reduce stress and anxiety. Physical activity can help play a impact in preventing mental health problems and improve the quality of life of those experiencing them.

Physical activity can be used in treatment for depression and be used as a standalone treatment or as a combination therapy with medication and/or psychological therapy. Strong evidence exists showing a 20-30% reduction in depression in adults who participate in physical activity daily. Exercise has potential advantages over antidepressants with fewer side effects, and perhaps less stigma attached to it as treatment modality in comparison to counselling or psychotherapy. Limited evidence exists proving physical activity can reduce levels of anxiety and distress in people with mild symptoms by 20-30% and may also be helpful for treating clinical anxiety and mental



health. Physical activity is available to all, has few costs attached, and is an empowering approach that can support mental health.

There is clear evidence that physical activity reduces the risk of cognitive decline among people with a 20–30% risk reduction in developing dementia for adults participating in daily physical activity. Physical activity also seems to reduce the problems of psychological factors which effect on the mindof the people.

**Significance of physiotherapy in sports:** Whether you're an athlete dealing with an injury, whether you're rehabbing, whether you're trying to stay flexible, fit, and healthy, or whether you're simply trying to improve your overall athletic performance, visiting a qualified sports injury physiotherapy expert could be one of the smartest choices you will ever make. We'll now take a much more detailed look at some of the primary benefits associated with seeing a sports physiotherapist.

Slow and sustainable repair of the muscles and the body as an athlete, your body is placed under much more stress than the average person, and your muscles are forced to work much harder than usual, and to take a great deal of punishment in the process.

Every time we engage in physical exercise or activity, we're putting our muscles under pressure and are damaging them, which is why they feel so tender and so sore following a strenuous workout or bout of physical activity. The great thing about sports physiotherapy, is the fact that the physiotherapists, who are highly skilled and highly trained, know where to focusthe majority of their attention.

These experts, rather than concentrating their efforts solely on the part of the body that is most heavily afflicted, will instead look at the causes that could have led to the injury/discomfort in the first place. Because of this, the entire body benefits overall, rather than just one or two body parts and muscle groups. Using a number of techniques, including sports massage therapy, multi-level postures, strengthening exercises, stretching movements, and much more besides, the body has chance to heal itself slowly, which is one of the reasons why physiotherapy is so beneficial for people looking to recover following a particularly strenuous workout or activity.

- Full-body benefits
- Pain management
- Chronic health issues can also be treated and addressed
- Improved flexibility
- Fantastic for rehabilitation

**Physiotherapy on Mental Health:** When talking about sports and athletics, a lot of people find themselves focusing on solely on the body, rather than the mind. Whilst the body does obviously play a crucial role in physical exercise and activity, so too does the mind, which is why it's important to look after your mental health and well-being in the process. Strenuous physical activity and exercise can take its toll on a person's mental health and well-being, especially in the event of a painfuland debilitating injury.

Many athletes and sportspersons find themselves slipping into states of depression and suffering from anxiety, mood swings, and other forms of mental health disorders. It can be emotionally disturbing having to deal with an injury, and accept the fact that you will be sidelined and kept away from doing something that you love doing for several weeks ormonths, which is another reason why sports physiotherapy can be so beneficial.

Professional physiotherapists will know exactly what you're going through, and will be able to teach various techniques to you on how to cope with the mental side of things. They will provide you with a positive environment and a positive outlook on things, thus helping you to better cope with what it is that you're going through at that present moment in time. Being in the right frame of mind is essential, and your physiotherapist will know that, and will help to get you to whereyou need to be, both physically, and mentally.

### **Significance of the Study**

Becoming a sports *person* is incredibly demanding and taxing, both physically, and mentally in the process, which is why there are some people in the world who can truly class themselves as athletes. Whether you do consider yourself a sports person, or whether you simply like to engage in sporting activities every now and then, one thing that is for certain, is the fact that your body is constantly at risk of psychological and physical health related issues, especially as we find ourselves growing older as time passes us by. For these kind of problems a researcher will find

out the programs and preventions for reducing these kind of problems which are occurring in the life of sports person. It will make all-round development of the sports person and athlete.

### **Objective of The Study**

The main objective of the study is to identify the research gap from the previous Literature review those are related to the framed problem which is entitled as: "Significance of Physiotherapy on physical and mental health of the sports person."

### **REVIEW OF RELATED LITERATURE**

Sports have a great impact on people's lives. These sorts of activities benefit us in numerous ways. First, people that indulge themselves in it can have quality leisure. Sports develop one's skills. It's a sort of entertainment and at the same time, it helps you develop your brain, physical strength, and emotional stability. It brings change and purpose to an individual's life. Some famous people are very dedicated to sports. Athletes often place enormous emphasis on their ability to compete and perform. Problems Injuries are usually devastating to individuals as modern competitive sports have indisputably gone above and beyond the athletic activities of the past, in terms of use, athlete's strength, and therefore the level of importance placed on success. Its popularity altogether of its forms steadily increases. Quite just the domain of choice or professional athletes, the populace enjoys a selection of recreational pursuits from hiking and running to surfing from badminton and tennis to cricket and hockey. In such endeavors, many participants find that problems and injuries are inevitable. Daredevil sports like surfing, rugby, or acrobatic bicycle and jumping, leads to high physical trauma (Spanjersberg and Schiper 2008; Miller and Demony 2009). Young footballers and senior golfers are susceptible to physical health issue, as are Olympic performers and "weekend warriors" because the injury doesn't discriminate (Delaney et al. 2009; Falvey et al. 2009). Besides, dancers also face far more damages (Fitt 1996; Stretanski 2002; Koutedakis and Jamurtas 2004).

During a year, 85 % of badminton players, 65 % of runners, and 21 % of walkers are physically injured when injury rates are expressed per hour of activity, the danger of damage is usually ranked by sport. Not surprisingly, such rankings show that sports like rugby and lacrosse produce the foremost mayhem, with about 30 injuries per 1000 hours of activity. Basketball and squash produce injuries around 14 injuries per 1000 hours. High-intensity activities like running and aerobic dance have higher injuries rates, 11 injuries per 1000 hours. There are a variety of sports with the numbers of injuries per 1000 hours of activities like Alpine skiing (8), Rowing machine exercise (6), Treadmill walking or jogging (6), Tennis (5), Dancing classes (5), Resistance training with weight machines (4), Resistance training with free weights (4), Outdoor cycling (3.5), Stationary cycle exercise (2), Stair climbing (2), Walking

(2) ('Injuries in Recreational Adult Fitness Activities,' *The American Journal of Sports Medicine*, vol. 21 (3), pp. 461-467, 1993). However, in sports like running, cycling, swimming, stair climbing, and walking, most injuries aren't the result of sudden catastrophes but occur due to 'overuse'. To prevent injury in the sport, one has to make simple adjustments in their training schedules, and routine warm-up and cool down and strengthening of muscles and joints. High injury rates could probably be significantly lower if we know about the actual causes of injuries. Research suggests that by proper training techniques injuries could be cut by 25 percent (Sport for All: Sports Injuries and Their Prevention, Council of Europe, Netherlands Institute of Sports Health Care, Oosterbeek, 1989).

Some studies show an inverse relationship between injury risk and the number of years involved in an activity. Newcomers in sports are likely to be more injured than those who have been training for many years (*American Journal of Sports Medicine*, vol. 16(3), pp. 285-294, 1988, and also

*Archives of general medicine*, vol. 149 (11), pp. 2565-2568, 1989). Strength plays an important role in reducing injury risk. Due to regular training athletes become more experienced, stronger, and coordinated as compared to beginners which are very useful in the prevention of injuries. Upgraded strength protects and stabilizes joints and prevents muscles and connective tissues from being torn apart by the repetitive forces placed on them during activity. It is considered that 50% of the injuries are reoccurrence injuries and the rest of the injuries and new troubles (*Archives of general medicine*, vol. 149(11), pp. 2561-2564, 1989). This is certainly due to improper care and training. An injury is not just an annoyance but it should be a warning signal that a body part is not strong enough to bear the stress due to sports. The fact is that injuries tend to re- occur in weaker regions of the body.

Physiotherapists have a good range of proven and documented approaches to treatment. Proper assessment and diagnosis are significant within the successful treatment and rehabilitation of sports injuries. Athletes affected by a recent injury or a recurring problem can enjoy the expertise of a specialist team. A multidisciplinary team approach is right as cross-referral may happen to rehabilitate the 'whole' person and not just the injured part. Whether or not they are pursuing gold medals or leisure, those who participate in the physical activity require both proper preventive training and proper healthcare. Sport rehabilitators and other allied health professionals have much to supply physically active people.

Due to lack of knowledge athletes sometimes has a wrong approach to health injury treatment and its prevention. Some athletes practice the principle of 'ARI' - anti-inflammatory, rest, and icing. These remedies tone down the severity of an injury and athletes believe that these therapies are the 'cure' for his or her athletic wounds but the reality is that ARI simply allows athletes to return to the precise activities for a shorter period of time and thus it leads to reoccurrence of an injury after some time. Small wonder that fifty percent of injuries are re- occurrences! Sports-active people need to go for strengthen instead of rest and ice to vulnerable body parts. They ought to understand that success in managing the acute stage of injury generally results in success within the post- acute stage and onward because the athlete is ready by healthcare professionals on the game healthcare team for re-entry to participation. Insofar as possible, the game rehabilitator must make sure this process goes smoothly, to supply physical and psychological support and to stay the athlete's best interests foremost during the progression back to full activity.

Injuries can only be successfully treated when the explanation for the matter is fully investigated and corrected; therefore, an in- depth history is mandatory and an entire posture, gait, and biomechanical assessment must be made. Careful history taking is of the utmost importance to determine the situation, nature, behavior and onset of symptoms, etc. This is often followed by a physical examination where a methodological approach is adopted. Sometimes further investigative procedures are going to be needed to verify the diagnosis. It's not acceptable to treat symptoms without first establishing the underlying cause. A radical evaluation of all the factors contributing to the patient's pattern of symptoms is important so that a selected treatment plan is often established. It is obvious that prevention is best than cure and therefore the physiotherapist will always advise the patient on the way to prevent recurrence of the injury on return to sport. e.g. an athlete recovering from lateral epicondylitis needs to strengthen the wrist extensor muscles to stop the injury from recurring. As extensor muscles are weak as compared to the wrist flexor muscles as they are vulnerable to overload. In the same way, an athlete recovering from a hamstring strain would wish to stretch and strengthen the injured hamstring to make sure that flexibility and strength are equal for both injured and non- injured sides. Because exercise is intrinsic to the rehabilitation process, trainers and coaches got to remember that they need a big part to play in helping their athletes back to full fitness.

Every stage of physical health issue management helps the athlete to cope with the injuries and return to the game as earlier. For an athlete having an injury of a pulled hamstring or sprained ankle, a physiotherapist can help the athlete to provide the right first aid procedures. The RICE protocol should be followed REST to the injured part immediately, ICE therapy to the injured site, compressing the injured site with strapping that and then elevating the injured limb. This protocol helps the athlete to reduce the pain and regulate the inflammation and swelling due to injury. If it is done quickly it can speed up the healing process. For serious injuries like bone fractures, only those having proper training in first aid should give the treatment.

Often the simplest people to ascertain are physiotherapists specializing in sports injuries since they affect such injuries daily. Even orthopedic surgeons aren't always sports-injury specialists, often spending most of their time with more general patients. The sports physiotherapist will design a plan of treatment for the health issue problems. The main aim of the initial stage of treatment is reducing the pain and promoting healing. Once pain and any swelling are reduced, the treatment will begin to involve more exercises. At now, the physiotherapist will set exercises to focus on specific goals which will help solve the athlete's problems. Initially, this is often likely to be mobility and adaptability training then, later, strengthening work. This is often where the athlete, coach, and physiotherapist can work together.

Even alternate training also can be done athletes can still train even once they are injured. It means adopting different types of coaching or training methods that don't stress the injury. One of the main goals of the restoration process is to take care of physical fitness levels by using alternative training methods. As an example, rather than running, athletes can try water running with a flotation belt, or cycling athletes must believe that albeit they're injured, they will stay in shape. Additionally, to maintaining aerobic fitness, the athlete can use the injury period as a chance to strengthen other areas of the body. Remember, it's only the injured part that must be rested, not the entire body. For

instance, a footballer with a groin strain can use the injury period to enhance leg, trunk, and upper-body strength.

Progressive return to full training, once the pain has subsided and the athlete has started to meet the flexibility and strengthening goals, the physiotherapist will be able to advise on when normal training can start again. There should be clear communication between the therapist coach and the athlete. To avoid reoccurrence of injury one should not start training too earlier or too hard. What they fail to understand is that, just because the injured part is pain-free, it doesn't mean they are fully fit. Once the athlete can use the health issue part, he or she must gradually retrain the endurance, strength, and coordination of that part so that it can withstand full competition conditions again. Thus, the goal at this stage in the rehabilitation process has moved on from healing the injury to regaining full function.

To achieve this, the rehabilitation program must be specific to the athlete's sport. For example, for the injured athlete, strength exercises should be functionally related movements, such as single-legged squats, jumps, and plyometric drills.

### **RESEARCH GAP IDENTIFIED**

More than 50 studies were reviewed by the researcher and near about 25 reviews are quoted in this chapter. Latest reviews are of 2018 and oldest review is of year 1981. Though work has been done by many sports development for different games and sports like netball, wrestling, combative games and football volleyball Badminton, Ball Badminton, Hockey, Handball, Table Tennis, Kho-Kho, Basketball Kabaddi, athletic games etc.

Very less studies are done by foreign authors in the physiotherapy related to the sports performance, but few study are done by Indian author on physiotherapy related to physical and sports. In this study investigator is going to conduct the review of previous studies which has been done by the other researchers. The investigator has taken scientific supports attained from various investigations in the past have exposed the various aspects of the similar studies. The exacting characteristics of the effect of physiotherapy on psychological and physical variables of sports athletes, as required by this particular sport discipline.

After reviewing the critical literature, it has been found that scholarly attempts have been made separately to the impact of physiotherapy on sports; however, no study regarding the significance of physiotherapy on physical and mental health of athletes. In the field of the physical education and sports there are very less number of research conducted on the same variables and its factors. So there are not previous specific record for the same study. So, the researcher made the plan and discussed with guide while analyzing the empirical proof or data and selected a specific problem related to the impact of physiotherapy on the motor or physical fitness and psychological mental health of the sports athletes. And reached to the idea for formulation of the problem which is about the investigation.

### **CONCLUSION**

The conclusion of the present study about the significance of Physiotherapists in the sports problem related physical and psychology health of the sport athlete. A strong athlete physiotherapist relationship is necessary for effective treatment and shaping of athletes' expectations of health issue restoration. Hence, it is necessary to factor the problem athletes' expectations in structuring a therapy program. This helps increasing the transparency of communication between sports physiotherapists and all individuals and agencies requiring their skills, guiding the design of professional development opportunities, and enabling sports physiotherapists to provide evidence of their competencies and identify their learning needs.

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