

SPORTS TRAINING, INJURIES AND REHABILITATION OF ATHLETES: PSYCHOLOGICAL PERSPECTIVE

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Abstract

During participation in competitive sports athletes may unfortunately come across injury, and Injury is an undesirable phenomenon, but often un-avoidable consequence for athletes. Incidence of injury has been a problem as more people are involved in sports. The growing awareness associated with injuries in sports has aroused the demand for the knowledge of emergency aid. The importance of physical reconditioning to the athletes cannot be underestimated. To this end, the paper discusses among other things, the concept of physical reconditioning, consequences of inactive, the cardinal principles of sports conditioning programmes and some rules of reconditioning the athletes, vis-à-vis the importance of participation in exercise and some training performances that could develop the endurance fitness of the athletes. Some factors that may predispose athletes to injuries were highlighted. Often the nature of the injury will determine the type of treatment to be provided for the athlete; hence some rehabilitation procedure fitness of athletes. Some factors that may predispose athletes to injuries were highlighted. Often the nature of the injury will determine the type of treatment to be provided for the athlete; hence some rehabilitation procedures were mentioned. The psychological perspective reveals what injured athletes go through as a result of injury sustained during sports participation, and they include; fear of defeat, stress, anxiety, and tension among others. Recommendations were proffered to governments,

Keywords: Sports Training, Rehabilitation. Reconditioning, Participation, Psychological, Injury.

Introduction

A consensus definition of sports is formulated and it is stated that the results of people's activity associated with the use of physical exercises in the process of preparation for and participation in competitions have a dual nature as a person is at the same time the subject and object of the cultural-historical process (Vasyl, 2019). Sports is all about a range of specific activities which involves a competition and requires physical conditioning and skills. Competitive-all sports have a competitive element either between individual and team high level of individual commitment and motivation – top athletes get to where they are by training for long hours for many years and often have to make sacrifices (Brown, 2015). Smith (2018) brought many comprehensive understandings of features of sports by defining it as:

- a game occurrence
- an institutionalized game
- a form of special involvement

The features of sports, portrays sports as being a form of play, a competitive activity involving physical prowess and identifiable factors which determines its outcome. As a result of these attributes that enhances their changes of their optimizing excellence in performance. athletes and teams are required to adhere to laid down rules of the sport. This helps to discipline sports participants as erring athletes or teams are sanctioned and disciplined. The social organizations are primary, technical, managerial and corporate organizations and hence indicate that sport is an ordered activity (Smith, 2018).

Sports have been variously described as a dynamic social force, an institutionalized physical activity, usually requiring the demonstration of physical process and involving competition between individuals or groups who play to win, under certain predetermined rules, with specialized facilities and equipment within definite boundaries. There are bold challenges in competitive sports. By this it means that there are challenges between opposing teams or individuals, guided by rules. Dagnet (2019) highlighted this opposition concept as he defined sports as the organization of conflicts and allowing its practitioners to overcome,

in a context of perfect reciprocity, some of the frustration attendant on all forms of confrontation.

Sports in any modern society is an institution of considerable importance which reflects society's values, system and needs as well as prescribed acceptable behaviour patterns for attaining and fulfilling those values and needs. It is then obvious that the success of a competitive sports will depend vitally on the training and injury preventive measures the sports teams or individuals are exposed to, so as to enhance and make up the skills needed by the team. Bernard (2018) views sports as an institutionalized competitive activity that involves rigorous physical exertion or the use of relatively complex physical skills by individuals. There is no doubt that this country is endowed with many highly talented sportsmen and women. Their performance in various sporting activities can be attained if the necessary favourable atmosphere is created.

The major problem confronting sports administrators, coaches, trainers as well as practitioners is how to assist sportsmen and women to keep fit for an appreciable length of time, and injury free. This is where the topic of this paper on sports training-injury prevention and rehabilitation of sportsmen and women” becomes very relevant as an index for optimizing excellence performance and wellness. To attain this, consideration of areas in health care consisting of a combination of proper training, promotion of food supply and proper nutrition, prevention and rehabilitative measure should be employed. Sport serves as safety valve to dissipate excess tension. Therefore, participation in exercises helps individuals to:

- strengthens the heart
- increase its efficiency and reduce resting heart rate
- decrease the risk of coronary heart disease
- prevent obesity and excessive weight
- prevent any disease that include varicose veins
- decrease systolic and diastolic blood pressure
- develop collateral circulation
- quick clear fat from the blood stream
- increase the amount of haemoglobin and coronal blood supply
- reduce the clotting ability of the blood
- improve cardiorespiratory functional capacity on physical working capacity
- increase flexibility and retard the physical and physiological changes that result from aging(Smith 2018; Hill 2016 &Dragnet 2019)

Training Programmes to Develop Endurance Fitness

The performance in any physical activity is a complex phenomenon that combines various interacting variables such as genetic endowment, physiological qualities especially energy supply skill attainment, environmental and psychological factors. A variety of training programmes maybe used to develop, improve and maintain endurance fitness level of young athletes. These include circuit training, fartlek training, interval training, purposeful swimming, ergometric training, and treadmill exercises and cross country, running (Bunhke 2017).

Circuit Training: Circuit training is a method of physical conditioning which employs weight training and conditioning exercises. The method can be used as a means to achieve optimum fitness in an orderly manner within the group. the method is base on the principle that the athlete does the same amount of work in short period of time or does considerably more work within the limits of assigned training period. It makes conditioning fun and challenging through competition against teammates and against time. Progressive resistance exercise must be used. Activities are arranged in circular manner to allow progression from one station to the other until all the stations have been visited. The activities are alternated to cater for the upper limbs, the mid body, and the lower limbs respectively (Wilmore, 2017).

The fartlek: The fartlek is a type of cross-country with pack variations. It is conducted over a hilly terrain. It usually starts a easy pace, and swings from short intensive spirits. The tempo and speed of running is pattern over varied terrains eliminate training, boredom, delay the onset of fatigue beu develop more stamina and strength that would be gained on the flat running track. The programme is very good off-season to keep the athlete in shape and in good fitness level for optimizing excellence performance in the various sports (Clark, 2018).

The Interval Running Programme: It consists of run-walk over designated distance, quite often on the track or over an open space. The system incorporates the use of progressive over-load by increasing the number of repetitions of the distance covered increasing the distance or decreasing the rest interval between the runs. These programmes should be used a great deal during the off season and at the beginning of the season to develop a high level of endurance fitness and wellness. These programmes should be used by an athlete who stays away temporarily from practice and competition as a result of injuries, illness or any other reason to increase or enhance his endurance fitness (O' Shea, 2015).

Training and Endurance Capacity

It is the inability of the peripheral circulatory to deliver adequate amount of oxygen to the active body tissues that lower the endurance capacity. Ogunsumi (2018), summarized that the amount of Oxygen (O₂) content to the blood which the body can process during work or exercise depends on the following factors:

- adequate ventilation (air moving in and out of the lungs)
- the amount of haemoglobin in eh red blood cell and the amount of the red cells since the amounts of red cells determines the amount of oxygen carrying capacity of the blood
- the cardiac output

Endurance training strengthens the muscles of the lungs and hence increases the contractile power of the respiratory muscles and muscles and subsequently increases the vital capacity (the maximum amount of air the lungs can exchange in one respiratory circle(Wilmore, 2017). Aerobic training further induces a slower heart rate and hence enables the heart to return to a normal pulse rate more rapidly than the heart if the untrained athletes (Smith, 2018). It is pertinent to summarize that available evidence that the resistant effects of endurance training help to increase the oxygen carrying capacity of the circulo-respiratory system to the active muscle tissues so as to increase the *cardiovascular endurance*. There is a potentiality desirable physiological state in aerobic endurance event and one that may help to prevent and or reduce the incidence event of injuries in youth sports. Oboh (2022) and Emiola (2009) believe that in general the improvements recorded in sports performance in recent times could be attributed to:

- the rising standard of living, better nutrition and health care which enable more young men and women to come closer to achieving their potentials in size and capacity
- exposure to more scientific coaching methods. Training is the key to improved performance. Training is the key to improved performance. Training has to be scientifically planned with a specific objective and time in mind. Component coaches with adequate knowledge of the skills and strategies in various sports should be employed at various stadiums and training centers so that our athletes can put up their optima excellence performance in their competitions
- improvement in equipmentand competing with modern and standard equipment and facilities are parts of intrinsic incentives and facilities are parts of intrinsic incentives to athletes. Athletes should be exposed to standard facilities and appropriate training and competition kits, if they are to produce their best

- increased application of scientific knowledge to sports and greater understanding of the bio-chemistry, physiology of exercise and sports psychology and this help to increase awareness and understanding of the potentials and limits of ourathletes

Sports injuries

Injury is an undesirable phenomenon but often unavoidable consequence of athletes. Accidents would always occur where there is man, but in sports injury, the man involved is not just an ordinary man, but an athlete. Incidence of injury has been a problem as more people are involved in sports (Smith, 2018). The growing awareness associated with injuries in sports has aroused the demand for the knowledge of emergency aid. Sports injury refers to the kinds of injuries that most commonly occur during sports or exercise, but they are not limited to athletes (<http://www.niams.nih.gov>). Sports injury is an important transitional phenomenon in the life of athletics. It is an experience that needs proper management in a manner beneficial to the athlete. Sports medicine specialists, coaches and trainers often concern themselves primarily with the physical rehabilitation. Athletes who attain a prescribe level of physical rehabilitation are assumed to be fully ready for safe and successful return to participation in competitions (<http://my.clevelandclinic.org>).

Ogundari (2010) posited that many athletes who can psychologically adjust to injuries readily, may confidently return to safe competition after gaining physical rehabilitation combined with encouragement and assurance that such return to competition is safe.

Factors that Predispose Athletes to Injuries

It is important to point out that a variety of physical and non-physical factors may dispose athletes to injury. Ogundari (2010) summarized the physical factors to include:

- a fall and or a collision with other players or with objects during practice or actual competition
- that certain psychological factor may predispose some individuals to injury. These include life stress event especially the amount of upset experienced in the last few months prior to the competitive season. Example of such life stress events may be the death of a relation, change of residence, problems with the coach, a drop to a lesser plying status on the team

- the frustration of the guilt-ridden athletes who tries to make feeling less or some inner sense of guilt and who many at times try to push towards greater achievements
- the willingness to take risk is another identified personality characteristic which may make athletes more vulnerable to injury
- many risk takers may propel themselves into situation for which they do not possess adequate coping skills

Rehabilitation of Sports Injuries

Ultimately, psychological responses to injury are thought to contribute to sports injury rehabilitation outcomes (Cederstron, Graner & Ageberg, 2022). There is the need forexpanding research interestin sports injury in other to broaden of the domain to include topics, such as adherence to rehabilitation and interventions to prevent injury (Day & Wadah, 2022).

Rehabilitation and therapeutic process were designed to prevent athletes from endangering their lives thereby staying longer as an active performer in the field of sports. The process does not differ from those of non-athletes, because it is the restoration of an ill or injured person to self sufficiency or to gainfully employment at his highest attainable skill. Rehabilitation of injured athletes is different because rehabilitation of injured athletes must achieve complete recovery with as high standard of fitness and performance as before the injury (Hanson, 2019).The rehabilitation programme of activities is introduced for the injured athlete. The nature of the injury will determine the type of treatment to be administered. Once full range active movement of the injured parts become pain-free strengthening exercise with springs and weights are introduced. Once the athlete is able to perform fitness exercises, he is handed over to the coach and allowed to start light training from where he progresses to medium training and finally heavy training and graduated training necessary in order to prevent a relapse (Ogunleye & Adewale, 2014).

There are expected dangers of problem,behaviour in different aspects of the human activities. The sport competitive and recreational is an area where the riskof predisposition to injury are likely to happen. Anxiety is the most implicated in sport performance as an inhibitor of good performance. Perception is the first in the anxietyelicitation process and described the physiology of state anxiety thus. Sensory messages from the competitive athletic setting received by the eyes and ears are promptly relayed to the receptor via the thalamus to the cerebral cortex of the brain. The perception of fear occurs in the cortex as a result

of a connection between the sensory cues and memories derived from past experiences. The psychological influence has manifested itself in inducing fear that vigorous participation in sports will adversely affect some vital physiological and natural functions of women (Dickson, 2017). These fears include the development of masculinity, abnormality in menstruation, menstrual cycle, prolonged labour and difficult child birth and infertility.

The job of the coach trainer, physician and sport psychologists is to help the injured athlete achieve the final adjustment stage, get healed as fast as possible and become confident to return safely to competition. It is particularly important to find techniques or strategies that can help the athlete to effectively reduce or completely eliminate the anxiety that relates to injuries (Shola, 2018). The rationale for the awareness and understanding of the vital psychological component of the care of the injured athlete can become clearer when it is realized that the psychological wounds of competition are not inflicted by others on the athletes, but more often by the athletes themselves. The poor reactions of the athletes to injuries which constitute psychological problems in rehabilitation are mostly personally created. Therefore, athletes must be helped to gain effective control over such psychological problems. These strategies this paper highlighted to help athletes respond in more positive and growth-orientated ways in order to ensure quick and complete rehabilitation and safe return to competition.

Psychological Perspective of Sports injuries

During the past three decades, a growing body of research has documented the psychological antecedent and consequences of sports injury. Psychological factors have been found to play important roles in the occurrence of, and recovery from sports injury. Psychological interventions to prevent sports injuries and facilitate sports-injuries rehabilitation have been developed, implemented, and evaluated. With regard to the psychological antecedents of sports injury, researchers have documented a consistent positive association between life stress and sports injury. Factors moderating the stress-injury relationship include; social support, coping skills, and personality. Preliminary studies suggest that modifying the stress response can reduce injury risk. Presumably, stress-management interventions lower the risk of injury by decreasing muscular tension, reducing stress-induced narrowing of the peripheral visual field, and enhancing concentration on the task at hand (Brewer, 2013).

There are different psychological factors that affect sports injuries and they include, identity loss, fear and anxiety, lack of confidence, performance

decrements, and the group processes within the sports team. Injuries injury, limit mobility, require special care and compromise our lives (<https://www.athleticbusiness.com>). Research has highlighted many psychological factors that are common for athletes to experience once injured: feelings of isolation, anxiety, fear and re-injury, however frustration, depression, anger and tension are highlighted as the highest ranked emotions and athletes encounter when injured. The psychological response to common sporting injuries can be explain to include, sadness, feeling of isolation, irritation, lack of motivation, frustration, anger alterations in appetite sleep disturbance, feeling disengaged (<https://www.aafp.org>).

Most people have a negative psychological response to injury, but athletes may have an even stronger negative response than most people, since their lives rely so heavily on their physical abilities (Staff, 2017). Many researchers have studied athletes' emotional responses to injury. Responses are as varied as athletes themselves, and it is impossible to devise one model that fits all. In general, while a small minority of athletes is relieved to have a reason to leave sports, most athletes experiences a wide range of intense, negative emotions following an injury.

According to Brewer (2013),some of the most common types of psychological injuries include:

- mood disorder
- post-traumatic stress disorder is a complex disorder that often follows a severe injury or life- threatening event
- traumatic brain injuries
- chronic pain

Recommendations

The following recommendations were made for this paper:

1. The government should train more personnel in the area of sports medicine
2. The government, sports councils and institutions should make available enough funds for the care and welfare of the athletes.
3. There should be cordial and full cooperation among the coaches, trainers, physicians, and psychologists to restore the athletes to their previous competitive fitness.
4. Knowledge of sports injury should be emphasized during the training period of the coaches and other professionals in sports

5. The government should provide adequate equipment and facilities for the athletes.
6. There should be period clinics for coaches and trainers on sports injuries management
7. Sports clinics should be provided in major sports centers, stadia, so that rehabilitation programmes can start without delay

Conclusion

By nature, sports activities invite injuries which could be minor, moderate, and major. When these injuries occur, some reconditioning exercises could also be designed to promote physical and psychological rehabilitation of the injured athletes. Although age is one of several demographical factors thought to influence psychological responses to sports injury, age analyses have been reported in relatively few studies of the psychological consequences of sports injury. There are, however, compelling reasons for adopting a developmental perspective in examining psychological issues associated with sports-injury.

There are, however, compelling reasons for adopting a developmental perspective in examining psychological issues associated with sports-injury rehabilitation. Firstly, the risk for sports injury varies across the life span. Secondly, negative emotional reaction to sports injury tend to diminish with age. Thirdly, given the popularity of sports and recreational activities across the life span, it is necessary to investigate the generalizability of research findings across different age groups. Fourthly, developmental differences in athletic identity and other factors may influence how athletes respond to injury. Giving these ambient reasons, it is therefore, important to seek the overall prevention and prompt rehabilitation of sports injuries.

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