CAUSES OF SHORT DISTANCE ATHLETES INGURY AND PREVENTION: SOME SELECTED CLUBS IN SOUTHERN NATION NATIONALITY PEOPLE REPUBLIC REGION, ETHIOPIA

"A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN SPORT SCIENCE."

BY

MENGISTU SAHLE

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I would like to express my thanks to those who helped me during the process of conducting the research. Thanks are due to the office of the Vice president for School of Graduate Studs and research of the Addis Ababa University and the Department of Sport Science for the financial support and for facilitating the administrative work.

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The study would not have been possible with out the strength of God, who is able to do exceedingly and abundantly, above all we ask for think, according to the power that is at work within.

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ACRONYMS

IAAF- is International association of athletics federation.

SNNPR- is Abbreviation of southern national Nationalities people Republic Region.

NF= is the federation of Ethiopia athletic federation

FRAFIS- Federal and Regional Athletics Federation Technical Staffs

SNNPR AFTS- Southern Nation Nationalities People Republic Athletics Federation Technical Staff.

Abstract

The purpose of this study was to identify the causes of short distance athlete's injury focusing on some selected clubs in southern Nation Nationality people Republic Region. The participant of the study were 60 (66.7%) of short distance athletes selected by using simple random sampling from the total of 90 while 4(40%) of coaches, managers, technical staff of National and regional athletics federation and medical doctor working with athletes were selected purposely. Pertaining to data gathering tools, questionnaires, interviews and observations are used. Both questionnaires were analyzed by descriptive statements and frequency counts.

To this effect, the summarized data revealed that the current training program offered to short distance athletes was rated as fair; this implies they do have good future perspective. The following are founded to be major impending problems. These are improper foot wear, group training, Excessive load, intended too much too soon, poor per iodization, excessive distance running, over load training and malnutrition.

The researcher concluded that most athletes suffer with causes of injury, levels of injury and types of injury that frequently happens on lower limbs and those needs special attention with preventive measures. This research opens for other researcher to study the detail of the problems of the athletes.

So, the researcher should recommended that, displaying and making awareness about types of injury to athletes and concerned bodies, athletes must consume sufficient and appropriate foods, fluids, fruits and vegetables etc.

CHAPTER ONE

1. INTRODUCTION

This chapter deals with background of the study, statement of the problem, significance of the study, organization of the study, research questions, review literature, research methodology and operation terms as used in the research document.

1.1 Background of the study

When observing a short distance runner from the side; the stride is divided in to two distance phases. The contact phase (one foot is in contact with the ground) and the swinging phases (the leg and foot are swinging through the air, during contact phase runner contact the ground in one of the three ways; with the heel, flat footed and on the ball of the foot. The lower leg is forced to follow the action of the foot. Periodization must include preparation period, competition period, and recovery (transition) period. During preparation period athletes should develop with predominant strength, anaerobic fitness and low volume and high intensity training. During competition period athletes should prepare to maintain fitness and care to avoid injury, high volume and low intensity training should carry out with predominance. Transition period is the period in which active rest players role for further athletic career.

Coach can use various techniques to succeed his objectives. However, some short distance athletes have got injuries during training and competition period. Effective prevention can be achieved with training programmes originated from the field of physical therapy and medicine. Areas of agreement for prevention programmes to reduce sport injuries, critical factors must be considered, such a training content, duration and frequency as well as athlete compliance.

Areas of controversy home based programmers could be inferior to supervised training, but are efficient if compliance is high, so far prevention programmers have focused on team sports and their efficiency in individual sports remains to be proven. Active prevention programmers focusing specifically on the lower extremity initiatives enhancing the awareness of trainers, athletes and therapist about risk factors and systematic prevention measures should be encouraged.

Van Mechelen et. All .11 proposed a general four step model for sport injuries surveillance. The first step comprises the description and the extent of the injury problem. In a second phases, the a etiology and mechanisms of sports injuries are being investigated. Their stage concerns the introduction of preventive measures, which will then be assessed regarding their effectiveness by repeating step one. The purpose of this paper is to review the state of the art knowledge on injury prevention in short distance athletes. In the first part, the incidence and frequency of particular sports injuries will be briefly recalled, highlighting the specificities of the young age group related to biological maturation. The second part will discuss intrinsic risk factors of that athletes with special emphasis on which are modifiable and can be targeted by intervention. In the last part active prevention programmers, will be critically presented regarding their implementation characteristics and efficiency.

Considering the influence of gender, girls seem to be more prone for some injuries than boys. For example, in figure skating. The relative number of stress fractures (with respect to the number of athletes) was 11% in girls, but only 8% in boys.

Finally, there are maturity associated variations that may influence sports injury risk. The adolescent athlete is more susceptible to injury than the prepubescent athlete because circulating androgens promote the fast

development of muscle mass and enhance movement velocity and power. These rapid changes are likely to influence self control and risk perception.

1.2 Statement of the Problem

This research is entitled as “the causes of short distance athlete’s injury and preventions” the case of some selected clubs in southern nation nationalities people republic regional state. The main issue that I dealt with injury of short distance athletes. Injury is the common problem for all short distance athletes since participation activities has increased now a days because of fitness effects. As more athletes participate on it more injuries will also occur as a side effect. Our short distance athletes become decline. Those athletes during engagement in training and completion practice over use level of injuries they encountered were first level, second level and third level. Injuries depend up on its levels. Complexity increase when athlete is exposed to third level injury.

The Ethiopian National and Southern Nation Nationalities People Republic regional athletics federation believed that some best short distance athletes were being threatened and fail to participate with promising performance. The coaches couldn’t conduct trainings and implement periodization properly at their full knowledge and experience since the athletes have been under serious injuries. The clubs training schedules and established objective were challenged. They fail to hired athletes injury free that represent them in short period of time.

Athletes suffered healthily and lose benefits that attained through participating of training and competitions. Generally, the impact of this problem may leads athletes fails to take part in completion and sometimes forced to drop out totally. This rapid development of injury may have a serious impact on athlete’s life and their athletic career in particular. So, nobody was benefited from athlete injury.

1.3 Research Objectives

1.3.1 The general objectives of the study is to study causes of short distance athlete's injury and suggest preventive measures associated with them in four athletics clubs of southern nation nationalities people republic regional state.

1.3.2 The specific objectives of the study is to identify causes of injury, levels of injury and types of injury which frequently occur and to suggest preventive measures for injury of short distance athlete.

1.4 Research Questions

- What are the causes of injury of short distance athlete?
- What are the levels of injuries mostly short distance athletes encounter?
- What type of injury frequently occur in short distance athlete?
- What are the preventive measures to be taken for injury of short distance athlete?

1.5 Significance of the Study

To investigate concepts, purposes, causes levels and types of short distance athlete injury and suggest out prevention mechanisms. This helped to make awareness about the challenge for concerned bodies. This helped to be cures about issue and take care of it during the procedure of training and competition period. Through these the existed potential of injury can be threated and minimized. The result of these study is important for short distance athletes, coaches, athletics clubs and athletics federations. It also contributed to minimize time, cost and resource invested to manage the problem. In doing so, the suffers of athletes can be reduced and final result can be saluted.

1.6 Delimitation of the Study

According to the structure made in 1999E.C. Southern Nation Nationalities People Republic Regional State includes 15 zone 4 special wereda and 137 wereda. The capital city of Southern Nation Nationalities People Republic regional state is Hawasa. In the region there are 10 athletics clubs. All these athletics clubs in the region embrace short distance athlete and supply training facilities and other needs for their athletic career. The focus of the study was causes of Lower limbs of short distance athlete injury and its possible prevention mechanism. The study was delimited to four athletics clubs; those are south police and Yirgalem stride athletics club living in Howssa and Sidama zone Yirgalem city. The other two clubs Hawass city and Wondo Trade company athletics club live in Hawassa and Hadiya Zone, Hosana city respectively.

1.7 Limitation of the Study

Any research activity requires, varied relevant updated and accessible data sources. However, the effort of the researcher was challenged by extreme shortage of relevant, updated and accessible reference sources which bits of information were great value to the thesis.

1.8 Definition of key Terms

Athletes- those of both sexes participating in training and competing on the distance of sprint, medium distance, long distance 21km, marathon and etc.

Clubs- Organization where by athletes and coaches are hired aiming for training and competition.

Cause- is major factor that contributes for the occurrence of injury.

Concentric- is the shortening of muscle

Eccentric- is lengthening of the muscle

Excessive load- is a quantity of training given to an athlete beyond its limits.

Extrinsic- is causes of injury which is external to athlete body.

Eversion- is the turning of the sole of the foot outwards.

Fatigue- Condition where b y lactic acid is accumulated in athletes muscles as a result of excessive load on the body.

Fitness- is the ability of athletes to be fit for chosen athletic event.

Flexibility- is the ability of an athlete to excute movement with great range of motion.

Flexion- is reducing the angle of the joints, or bending forward.

Injury- is a pain that short distance athletes encounter through the course of training and competition on their lower limbs.

Intensity- is time taken to cover a set of distance.

Inversion- is the turning of the sole of the foot inwards.

Ligaments- are a tough band of fibrous tissue that links bone together across a joint.

Short distance- is a race that encompasses all 100m, 200m,400m4x100m, and 4x400m, 100m hurdle and 110 hurdle

Lower limb- is part of human body which includes lower extremities like foot, ankle, leg, knee, thigh and hip.

Massage- is systematic manipulation of Muscles of human body.

Pain- Soreness that athlete suffer within their lower limbs.

Periodizaiton- is the division of training program in to a number of periods of time.

Physical Activity- is an activity that is planned, structured and repetitive aiming to improve and maintaining athletes fitness.

Prevention- is a mechanism by which injury can be minimized.

Plantar- is towards the sole of foot.

Plantar flexion- it is the pointing of the toes.

Posterior- it is towards the back of the body.

Pronation- is rotating the foot turning inwards.

Regional federation- is the federation of southern national nationalities people republic athletics federation.

Sprains- are injuries that occur around a joint, damaging the ligament that attach bone to bone.

Strain- Occurs either within a muscle or at the point where the muscle and the tendon joint, not at joint.

Strength- is maximum force exerted during muscle contraction.

Supination- is rotating the foot turning outwards.

Technique- is sequential movement of whole body parts to perform an activity

Tendonitis- is an inflammation of a tendon, the tissue structure that attaches muscle to bone.

Training- is selected activity that recognizing the individual athletes needs and capabilities.

Training load- is sequence of activity that athletes perform in one specific training session or combination of both volume and intensity.

Cripitus- is tendon rubbing against the sheath

Volume- is the total number of repetition of certain tasks.

Intrinsic- is causes of injury which is internal to athlete body.

Medial- is towards the midline of the body, towards the center.

Dorsiflexion- is the bringing of the toes towards tibia.

1.9 Organization of the study

Concerning the organization of the study contains five chapters, the first chapter deals with background of study, statement of the problem, objectives, research questions and significance of the study. The second chapter is concerned with the review of related literature with the issue of character, concept, and purpose, causes of injury, levels, types and prevention mechanism. The design and methodology of the study is in chapter three. Finding and interpretation of data in chapter four. Lastly, in chapter five concerned with summary, conclusion, recommendation and implication.

1.10 Research Method

The field work conducted between November and January 30,2012 involved various procedures. The process began by gathering, as much as possible, all of the information that could be found from professional, coaches, athletes, athletic federations, clubs and managers. And finally the local government of athletics.

CHAPTER TWO

2. Review of Literature

To put the problem in proper perspective a review of the existing related literature is useful. This chapter reviews the various studies related to causes, levels , types of injuries and prevention mechanisms. So, the study researcher find to pin point as follows.

2.1 Types and characteristics of injures

Knee joint pain

Evans (1986) and Htt;//1a84 foudnation.org explain knee pain as patella femotal pain (pain around the kneecap) often develops directly under the kneecap. Pain is caused by the back of the kneecap rubbing against the end of the femur (thigh bone). This is usually caused by maisalignment (atilet) of the kneecap. The underside of the kneecap then becomes rough and sometimes catches as the athlete tries to straighten the leg that means Chondromalacia happens. Pain starts when running or going down stairs (worse than going up stairs) and difficulty standing and straightening the leg after sitting for a long period. Athletes may feel like his or her knee gives way. This instability is caused by an occasional release of the muscle in the thigh.

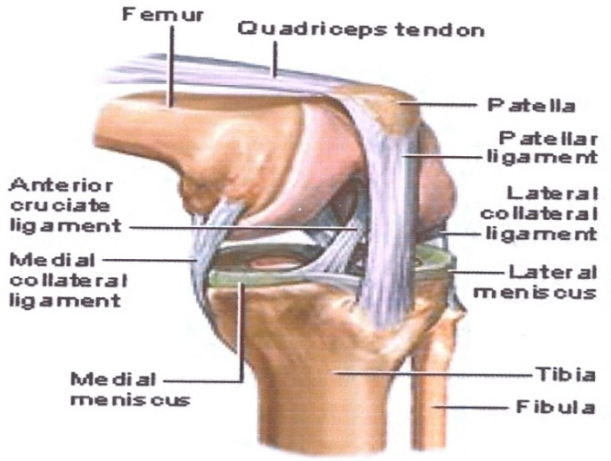


Figure-5 knee joint pain (source- Jrsi.org)

Hamstrings strains

Kalfs and Amiem (1977) explained hamstrings strains ranks second in incidence to thigh.

They are usually from 50% to 60% as strong as the opposing quadriceps muscles group. Participation in running produces the greatest incidence of stresses. Strains occur most frequently in person with some deficiency in reciprocal or complementary action of opposing muscle groups. The cause of muscle in coordination is often obscure; but fatigue, poor posture, uneven muscle strength, flexibility. An imbalance may strain or tear any portion of a specific muscle. There is some indication that an imbalance of 10% or more in the strength of one hamstring groups when compared to the other produces a high incidence of strain to the weaker groups

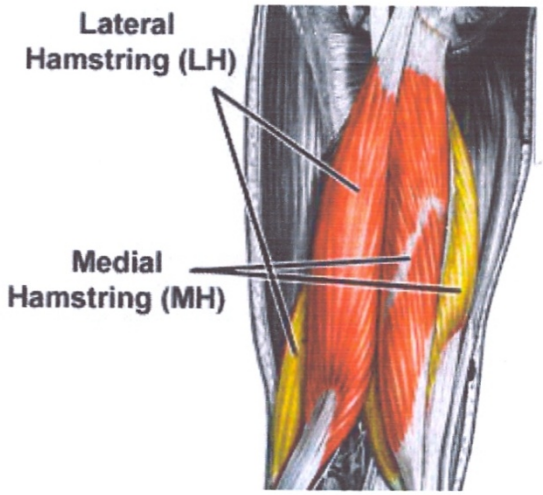
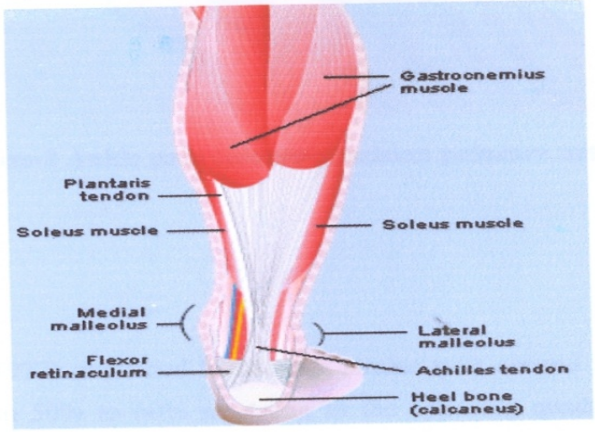


Figure- 3 Hamstring strains (source- runner for Christ)

Achilles tendonitis

Kvist (1994), Checkick, Amit, Israli, and Horozowki (1982) explained Achilles tendonitis it is an inflammation of the tedon that leads from the calf down to the heel. It is the tissue that attaches muscle to bone. When tendon is influenced, the swelling causes it to stick to the sheath instead of sliding smoothly through it. This can be very pain. It often starts with simple tenderness over the tedon and progress to painful state that restricts movements. In its most sever state, there is painful and sometimes audiable crepitus

, there is painful and sometimes audable crepitus.



gure-1 Achilles tendonitis (source- Mydr.com.au)

Lower leg compartment pain

Htt;//LA84 foundation explains lower leg compartment syndromes as the area of Gastrocnemius muscle are common. A bruise in this area can produce an extremely handicapping injury for short distance athletes. A brushing low to the leg will cause pain, weakness, and partial loss of the use of the limb. Palpation may reveal a hard, rigid, and some what inflexible area because of internal hemorrhage and muscle spasm. Spasms are sudden, violent, and involuntary contraction of one or several muscles. Gastrocenemius is mostly prone to this condition.

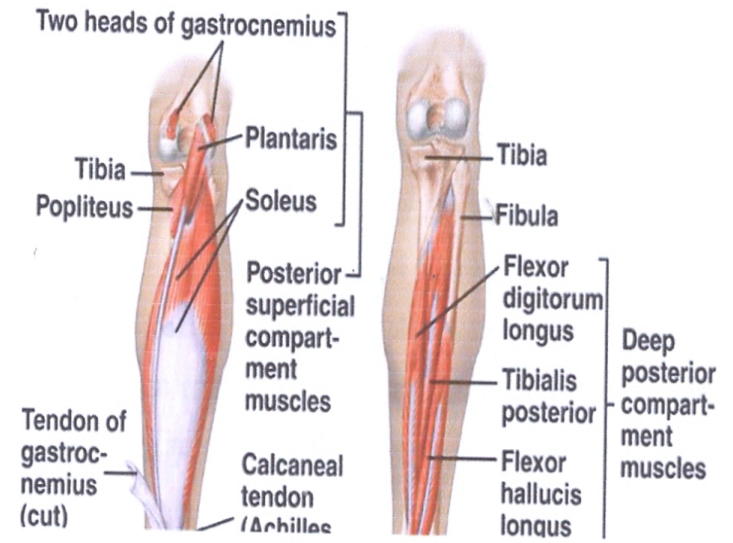


Figure- 6 Lower leg compartment pain (Source-1. Bp. Blogspot.com)

Ankle sprains

Burdett (1982), Kondradsen and Rayn (1990) explained Ankle sprains: occur either within a muscle or at the point where the muscle and the tendon join, not at joint. If an athlete sprains an ankle, the overextension of the muscles surrounding of the joint may result in a muscle strain as well as an ankle spriain. If you have ever sprained your ankle and had the muscles on the side of your leg hurt, you probably also trained your perennial muscles above the ankle.

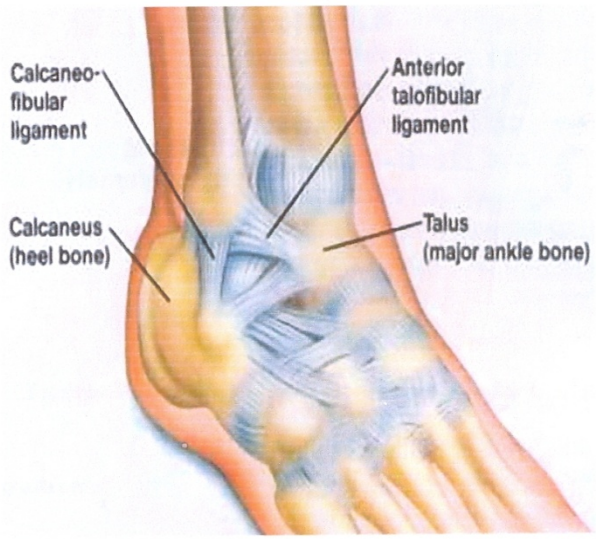


Figure-2 Ankle pain (source-precision paincare.net)

Plantar fasciitis

http;//LA84 founding.org, Neal and Adams (1989) describes plantar facilities is an inflammation of the thick, triangular tissue on the bottom of he foot. The fascia attaches at bottom of the heel and runs to the front of the foot, widening as it spreads to attach to the heads of the metatarsals (the long bones of the foot). It is a ligament like rope of fibrous tissue that starts at the tissue that starts at the heel of the foot and runs along the inside of the sole, where it fans out in to little fingers. It stretches and contracts. Pain appears on the bottom of the foot with the first few steps taken in the morning, and present at the beginning of a workout that diminishes during the run only to recur after training, and palpable tenderness at the place on the bottom of the foot.

of the foot.

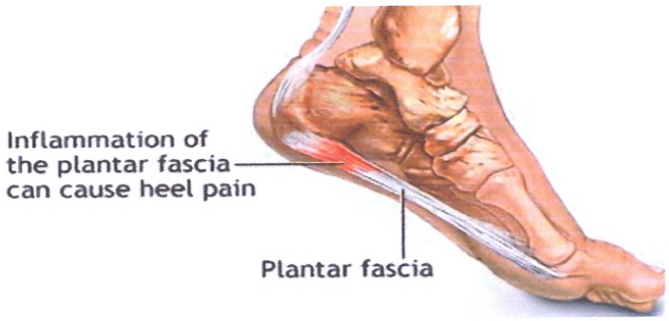


Figure-7 plantar fasciitis (Source- lovethoseshoes.com)

Iliotibial band syndrome

Rouse (1996) discusses iliotibial band syndrome; as it runs along the outside of the thigh and connects at the outside lateral border of the knee. As runners increase the volume and intensity of their training, they frequently develop pain on the outside of the knee that has nothing to do with the knee structure itself but with the attachment of this tendoneous band.

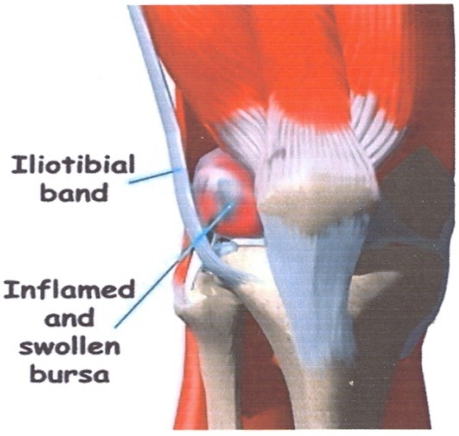


Figure-4 Iliotibial band syndrome (Source- ssrehab.com)

t pain

Shin splint

Detmer (1986), Hannaford (1988) elucidate shin splint as a non-specific term for an overuse injury to the lower leg. Pain is usually found in the lower two-thirds of the shin and is associated with tendonitis of the posterior tibias tendon or other flexor tendons along the shin. It is an obscure condition that seasonally plagues many athletes. It is characterized by severe pain and irrigation on the anterior aspect of the leg, and usually attributed to an inflammation localized primarily in the tedon of the tribialis posterior or between the fibula and tibia.

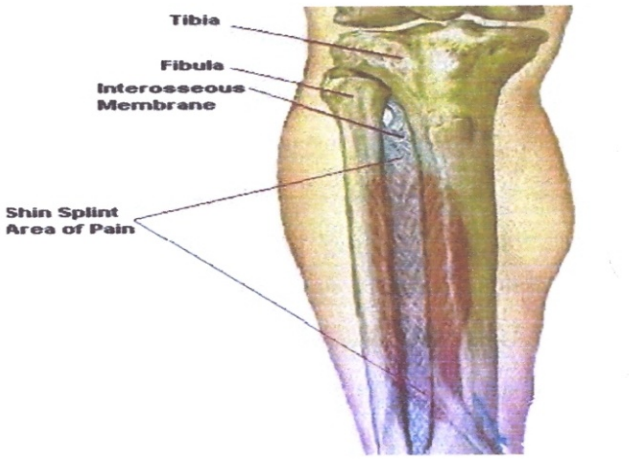
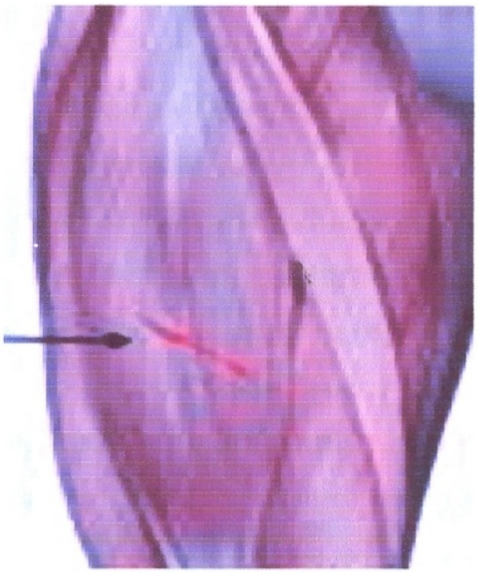


Figure-8 Shin splint (Source- foot doc.ca)

Quadrecips pain

Burkett (1970), Morris, Bell, Dooley and Lussier (1983), clarify quadriceps strain; usually nplies a strain of the rectus femoris muscle, but occasionally one or more components of the astus, the Sartorius, or both are involved. A strain may vary from a mild "pull" of the ectus femora's to a complete rupture of the muscle. When the later occurs, a large bulge is seen in the upper thigh. There is pain down the entire length of the rectus femoris, with tenderness localized to the area of the strain. There is in ability to contract the rest of the uaderceps mechanism, and knee flexion is usually limited.



Quadriceps pain (source- sport-injury-info.com)

2.2 Conceptual frame work of Injury

Sport injuries are injuries that occur in athletics activities. In many causes, these types of injuries are often due to over use or acute trauma of a part of the body when participating in a certain activity. For example, runner's knee is a painful condition generally associated with running, while other types of injury can be caused by a hard contact with something. This can after cause a broken bone or torn ligament or tendon. Injuries are a common occurrence in professional sports and most teams have a staff of athletic trainers and close connection to the medical community. Sport injuries can be broadly classified as either traumatic or overuse injuries. In jury can be minimized by doing an effective warm up, this consists of a heart raiser to get your pulse up, followed by sport specific dynamic stretches (stretches whilst moving). To reduce the risk of injury. Sport injury is a common problem for all types of athletes. Orthopedic surgeons specialize in treatment of athletes and active people. A sport injury is a setback for any athlete, but with treatment and rehab, you will be back in action soon.

Over use injuries, also called cumulative trauma disorder, is a category of sports related injuries that result from repetitive use. Find information about common over use injuries and treatment options.

Sport injuries are injuries that typically occur while participating in organized sports, competitions, training sessions, or organized fitness activities. These injures may occur in teens for a variety of reasons, including improper training, lack of appropriate foot wear or safety equipment, and rapid growth during puberty.

2.3 Purpose of Athlete Injuries

Because of high impact nature, many injuries are associated with running. They include "runners knee" (Pain in the knee), shin splints, pulled muscles

(especially the hamstring), twisted, Achilles tendonitis, and stress fractures. Repetitive stress on the same tissues without enough time for recovery or running with improper form can lead to many of the above. So, the purpose of this study generally attempt to minimize these athletes injuries by warming up before exercise, focusing on proper running form, performing strength training exercise, eating a well balanced diet, allowing time for recovery, and "icing" (applying ice to sore muscles or taking an ice bath) and also how to prevent athletic injuries, immediate care of athletic injuries, rehabilitation and reconditioning of athletic injuries.

2.4 Division of Injury

According to Dakes (1992) injury is classified as acute (out come unpredicted) injury and choronic (over use) injury.

Over use injuries are becoming more common in short distance athletes because of the increasing number of training activities, athletes are engaged in strenuous activity only targeting to improve the performance in competition. These athletes engaging in many number of training without sufficient recovery during session can easily practice over use and finally exposed to injury. Athlete practicing higher intensity at all levels of competition beyond their ability also easily prone to injury.

2.5 Causes of Injury

Short distance athlete's injuries are caused by different reason mainly use. http (LA84 foundation org. explain over use injuries in short distance athlete are classified as intrinsic or extrinsic factors.

- **Intrinsic factors** are the most common intrinsic factors related to over use injuries are alignment abnormalities, leglength discrepancy, muscle

weakens and imbalance deceased flexibility, joint laxity and instability age over weigh and predisposing diseases.

- **Extrinsic factors**; extrinsic factors are related to injures are excessive load on the body which includes types of, movement, speed of movements, number of repetition and foot wear. Training error encompasses excessive distance, per-iodization, and poor technique. The other extrinsic: factors which cause injuries are diet, warming up and colling down. The students researcher only treated the extrinsic factor which are external to the athlete, and possibly causes lower limb injury of short distance athletes were discussed as follows

Levean (1990) Iruin and Roy (1998) explained excessive load on the body as it can be expressed by biomechanics of running. When observing a runner from the side; the stride is divided into two distinct phases; the contact phase (one foot is in contact with the ground) and Ae swing phase (the leg and foot are swinging through the air) . During the three contact phase runner contact the ground in one of ways; with the heel. Flat- footed and on the ball of the foot. The lower leg is forced to follow the action of the foot. When the arch of the foot is lowered, the tibia rotates inwardly: When the arch is raised, the tibia rotates externally. This also has an effect on the patella and the femur which gives rise to over use injuries, runners strike the ground with a force between three and five times that of working. These huge repetitive force suggest that, onkle and lower leg receive the most force, at ten to thirteen times body weight. The Achilles tendon and knee are reported to receive force 7 to 11 times body weight; the plantar fascia, 1 to 3 times body weight. Repetitive force are transmitted to bones, joint and muscles of the lower limbs.

Palastanga, field and Sames (1989) noted that when the body of an athlete is imposed with excessive training repetitively beyond their limit, it is obvious that the body can easily predisposed to injury. Some athletes aiming to achieve

more with in short span of time, indulge themselves in heavy training but fail to recover from the load. The body continuously loaded can easily get fatgue and unable to recover and eventually leads to injury.

Klafs and Arnhem (1977) Neale, Adams and Fredreck (1989) avowed feet wear as the difference between success, failure, or injury in training and in competition. It is essential that the coach make every effort to fit their athletes with proper shoes. Improperly fitted shoes are damaging. Chronic abnormal pressures to the foot often lead to permanent structural deformities as well as potentially dangerous blisters. Besides these local problems occurring to the feet, it also resulted in mechanical disturbances affecting the body's total postural balance, which eventually lead to muscle and joint pain. The runner that pronates (feet roll inward) requires a different running shoe to the supinator (feet roll out). Neutral shoes may be well cushioned for shock absorption but has no special feature to correct the motion of the foot. Motion control shoes will have extra support on the inside to help prevent the foot rolling in (pronating) . The runner that supinates should choose a neutral shoes with good cushioning. A pronating runner needs a motion control shoes with medial support.

As cited in Mart and Coe, (1997) Training error are expressed as when an athlete start to move up from, three miles a day to seven to ten miles a days. The muscles and bones have to strengthen in order to accept these new challenges. Muscle strength usually increases more rapidly than bone strength. When the muscles and bones are not yet fully ready to accept the force imposed on it, that means the more an athlete runs, the greater the likelihood of developing muscles, tightness example, gastronomies- soleus group and hamstring muscle groups. The tighter the gastronomies- soleus group becomes, the more it may interfere with optimum foot function. A tight hamstring muscle can alter the movement of the leg. While the gastrocenemius- soleus hamstrng muscle groups are becoming tighter the

stronger with short distance athletes the anterior tibial and quadriceps muscle may be getting weaker. A weaker quadriceps muscle group can cause patellar pain, while weak anterior tibial muscle if frequently associated with development of the lower leg pain and fatigue. The longer and more intense effort the greater the chance for discomfort, however the same pain can occur if athletes suddenly begin a hard training cycle, without adequate transition from moderately intense training.

Fox and Mathews (1977), Thompson (1991) and Coe, (1997) affirmed as when short distance athlete's fitness is challenged by fast progression of load, there is a reposes from the body.

This response of the body is male adoption to the stimulus or load. The initial response of the body is fatigue. When the load continuous in fast progression athlete fail to recovery and the body total physiological condition get troubled, that means fast progression that is too great will cause the athlete to face critical problem with recovery and leads to overtraining .

Fatigue is also a natural consequence of training. It is useful to view the training process as a two-step stimulus- response pattern. The stimulus is provided by the work done, be it short run, an internal session, or a session in the weight room. The stimulus causes many alterations in normal body. The response by athlete over time, one hope is full physiological recovery from these alterations and ideally some adaption such that eventually an even stronger work load can be tolerated. The stimulus can be short lived (day assignment), or long lasting (entire few weeks) micro cycle. Similarly the response can be short term (over night recovery), or long term (improvement in fitness in training micro cycle). In sufficient recovery or rest time is provided when too many back-to back sessions of training are assigned athletes push themselves very close to the point of doing too much (over use).

McCann (1995) explained as the reward for success are so great in terms of exposure, notoriety, fortune, and fame that the desire to optimize peak performance has led to marked increase in the duration, intensity, and frequency of training by athletes. Too much too soon is the phenomenon most athletes practice unnecessary and indulge themselves to injury.

These can be expressed in sharp inclination of athlete from young to adults; performing extraneous activity without the consent of coaches, participating in multiple races within short span of time without the consent of coaches, participating in multiple races with in short span of time without appropriate rest time.

As cited in Martin and Coe, (1997) explained maladapted excessive distances in muscle cause a microscopic tearing or rupturing of the cells, this could of course, involve damage to the muscle cells, to their associated connective issues, or to both. The soreness or pain may occur all along the involved muscle and is often greatest near the muscle- tedon junctions.

These junctions the long axes of muscle fibers are least parallel to the long axis of the entire muscle. In several of the lower limb muscles, the tendons, instead of being restricted to the end of the muscle (example – near the hip, knee, or ankle), extend a considerable distance along the muscle to which they connect. When the distance covered by athletes increase from the usual distance by large the body especially the lower limb gets fatigue with much accumulation of lactic acid . When this lactic acid not properly removed from the muscle, it starts to dysfunction the normal physiological a condition of the body which may leads to dangerous conditions for an athlete to continue the events.

http://L A84 foundation.org clarify periodization must include preparation periods, competition periods, and recovery (transition) periods. During preparation period athletes should develop with predominant strength, aerobic fitness and high volume and low intensity training. During competition

period athletes should prepare to maintain fitness and care to avoid injury, low volume and high intensity training should carry out with predominance.

Transition period is the period in which active rest plays role further athletic career. A training and completion not manipulated properly can easily expose athlete to injury.

Fahey, insel and Poth (2004) stated high intensity is a condition of the body caused by training too much, characterized by lack of energy, decreased physical performance, fatigue, depression, aching muscle and joints and susceptibility to injury. These can be expressed in when an athlete face strong challenge with high increment of speed, to over certain distance in a very short period of time the body may get exhaust and unable to cope up the challenges.

As cited in Martin and Coe (199) Lengthening (eccentric) tension generation seems more prone to causing pain than shortening (concentric) tension generation, eccentric caused by excessive running down hill, stepping down. Training patterns do not provide sufficient adaption to the tissue loading to make such an experience routine. The muscle production requirements are greater during downhill running down hill, the additional momentum of lib momentum must be counteracted by antagonistic muscles. This requires greater involvement of connective tissue elements such as tendons.

Costill and Miller (1980), Deakin and Brotherhood (1992) explained nutrition as the intake of appropriate food and fluids is critical. Foods that energize the body include beads, cereals, fruits and vegetable. Fatty foods do not replenish the body with needed energy. From these we understand that, good nutrition can make its influence on preventing injury by helping athlete to recover between training sessions. It is important that athletes pay constant attention to eating habits. The diet must meet the demands placed on the body by training. In particular the athlete must consume sufficient energy in the form

carbohydrates to maintain the stores of energy within the muscles and help prevent fatigue and injury.

2.6. Levels of Injuries

As http:// LA84 foundation.org and Klafs and Arnheim (1977) Vowed Severity of short distance athlete's injuries become gradually and progressively more debilitating, typically passing through levels or grades, these are:

Level 1

Pain does not occur during normal activity. An injury that causes pain after exercise and is often only felt some hours after has ceased. The integrity of the ligament is undisturbed and their normal tensile strength is visualized the disruption of a few collagen fibers, perhaps in the capsule, some times in the superficial portion of the ligament. The athlete usually complains of some pain on twisting the leg or forcing into a valgus position.

The athlete aware of the injury, but often continues to run without complaining; only seeking advice after wards. It is minimal and localized to one area. There is a full range of movement with perhaps a minor decrease in flexion due to stiffness. The ligaments around the joint are stretched. Symptoms are temporary pain, muscle fibers are stretched. This is commonly referred to as a muscle pull.

Level 2

Minimal pain is present in the lower limbs. An injury that cause discomfort, not yet pain, during exercise, but that is insufficiently server to reduce the athlete's training or racing performance. There is usually some decrease in tensile strength of the collagen fibers, but integrity is present. The athlete may be continue running for a period of the and then after wards complain of pain and stiffness, but will be continue running for a period of time and then after

wards complain of pain and stiffness, but will be more aware the definite injury has occurred.

Full flexion is often difficult to obtain for a while after the injury, because of the discomfort. The ligaments around the joint are partially torn. Think of the ligament as rope with some of the fibers torn, but the rope itself is still intact. Symptoms are tenderness over soft tissue. Muscle fibers are stretched and partially torn.

Level 3

Pain is present at the onset of training and interferes with the speed and duration of a training session. An injury that causes more severe discomfort, now recognized as pain that limits the athlete's training and interferes with racing performance. Athlete may feel unhappy or apprehensive about continuing to run. There is fairly substantial decrease in the range of motion, with flexion being more limited than extension. Ligament indicating severe injury and definite end point can be felt. This is a complete rupture of one or more ligaments around the joint. Symptoms are constant pain, loss of function.

2.7 Injury Prevention

Athletes while accomplish training and competition activities must counter acting themselves from injury using different mechanism. Accordingly, Henschen (1986) explained successful prevention of injuries in short distance athlete can be carry out by multistage process; it beings with understanding of the causes of their syndrome. So, understanding the causes of lower limb injuries help to prevent the onset of injuries.

Georege Stromgrem (1964) stated as medical examination which includes medical history, medical checkup, and cumulative records of all injuries and illness is important precondition for screening athletes. The medical examination must serve as a selection device that permits those who are

medically and physically fit in all respect to enter in to athletic training and competition. So, conducting prior medical examinations helps athletes to be curies about themselves during the operation of training and competition.

Start and Hines, (1963) clarify warm-up is part of injury prevention routine. It prepares athletes b stimulating physically when it is carried out correctly. It increase the temperature of the muscle, blood flow and oxygen to muscles, increase the speed of nerves impulses (making you faster) , and increase range of motion at joints reducing the risk of muscle and ligaments injury. You must be systematic, start at the center of the body and work out towards the lower limbs. Generally, it maintains a healthy body by avoiding injuries which can lead to loss of training and prepare the body to use the appropriate energy system. On the other hand cooling down- when the work out or training is finished the heart rate is high and the blood is pumping through cardiovascular system. The recovery process should be gradual and comfortable. By decreasing exercise intensity which affects the hear rate and blood circulation, the body returns to back to its pre-exercising state without risk of possible blood pooling or muscle, stuffiness, and the removal of waste products. It the exercising is stopped suddenly, the hear continues to pump blood around the body which creates the accumulation of large volume of blood in the lower limbs. However there is no longer any muscle contraction pushing on the venous walls, consequence blood can pool. If blood is pooled there is no enough returned to the heat. This will affect blood pressure making it to drop leading to fainting. The cool down helps to decrease the temperature gradually and remove waste products from the muscle.

Brggs, sandor, and Kenihan, (1995) and Norris (1998) explained as getting massage can help rejuvenate a fatigue body. The tight or inflexible athletes are resulted in muscle imbalance which means reducing the function of muscle to contract and stretch. A muscle imbalance is a consequence of one muscle group being tight and antagonistic or opposing muscle group being too weak

such muscle are easily prone to injury. Muscle imbalance can be prevent by massage. Massage is important for stimulating and relaxation of muscle to reduce stress and tension, improves muscle flexibility, range, and freedom of joint movement, increase circulation and speed up removal of waster products from muscle. Eventually massage improves training and competition performance increase the supply of oxygen and a nutrient which helps muscles recover and speeds up the regeneration process.

Elm Tree (1988) and kOh (1995) discussed fitness as it is an important component in developing short distance athlete. Some of the components of fitness's are as follows; strength should be developed first. Speed will be developed more reality if strength is already established. The strength training program should be tailored to the individual. Flexibility is a good of muscular system of short distance athletes.

Adequate flexibility is important to the athlete in at least two aspects. 1. Full range of motion is necessary for the successful execution of athletic skills. 2. Normal resting length and an adequate excursion of extensibility of the muscle-tendon unit might afford some protection against injury. Increase in the flexibility of joints tends to decrease the injuries to the joints. It contributes to better athletic performance. An increase in flexibility must accompany an increase of strength and important for the runner to increase stride and economical running.

Flexibility permits greater freedom of movement in all directions. The athletes not only needs to attain the appropriate level of flexibility and strength but also needs to be maintaining muscle endurance. Fitness must pursue throughout the season for the better achievements of athletic career.

Generally, increase fitness reduces the risk of injury in two ways; by its effect on the muscles, tendons and joints. These help athlete to participate for the whole season on training and competition without fatigue. So it is necessary to

consider individual different during developing athlete in every endeavor of training and conditioning.

2.7.1 Exercise injury prevention

There is a risk of injury with any type of physical activity. Generally the benefits of staying active far out weight the risks. With preparation and common sense, you can reduce your risk of exercise injury and continue to gain health and fitness benefits.

Risk factors

Some types of physical activity, such as high-speed activities or contract sports, involve specific injury risks. Some of the more general injury risk factors include:

- In experience or poor technique (from)
- Failure to wear appropriate protective equipment
- Overtraining

Reduce of your risk of injury

General suggestions of the reducing of injury include:

- Have a medical check- up before your begin if you have a medical condition, are overweight, are aged over 40 years or haven't exercised regularly for a long time.
- Exercise regularly to keep yourself in good physical condition
- Gradually increase intensity after a break or when starting something new.

- Learn, practice and use correct skills and techniques. Seek instruction on maintaining good form and control during your chosen activity. You may consider consulting a coach to help you devise a program to suit you.

- Use appropriate protective equipment and dress for the condition. Avoid overheating and protect against cold.

- Be sun smart. Protect your skin from ultraviolet (uv) tradition and sun damage. Weather a hat, suitable clothing and sustain standards approved sunglasses. Apply 30+water- restart sunscreen to all exposed area of the skin and reapply regularly.

- Drink plenty of water before, and after activity

- Avoid exercise when in pain or fatigued

- Don't exercise if you re been drinking alcohol or have taken other drugs that may affect your physical or mental state.

- Make sure qualified first aid personnel, first aid kits and emergency contract numbers are available where appropriate.

Avoid dehydration and heat stress

Dehydration reduces exercise performance and increase the risk of heat-related. It can cause camping of the muscle.

Warm up and cool down

Warming up before exercise helps to loosen muscles, increase blood flow and prepare your whole for exercise. Light exercises to help you cool down slowly helps the whole body recover from exercise. There is some proof that warming up and cooling down can (slightly) reduces muscle soreness after exercise. Warming up has also been shown to improve performance during exercise.

Warm up and down with a alight level that uses your whole body for abut 10 minutes, such as brisk walking or jogging.

Check environment and equipment safety

Hard or uneven surfaces, low levels of lighting and extreme weather conditions are just some of the environmental factors that can increase your risk of injury.

Suggestions include:

- Take responsibility for checking and maintaining the safety of the exercise area and equipment.
- Be aware of potential hazards beyond your control such as motor vehicles, animals or ward balls
- Make sure children are supervised at all time by a responsibly adult.
- Make sure you have the correct safety equipment for the sport. Examples of safety gear designed to protect your during exercise include helmets, mouth guards, protective eyewear, shoes, shin guards, wrist guards, ebow and knee pads, gloves, athletic cups and padding.
- Avoid the hazard of poorly fiting or matained equipment. Make sure your gear is the correct size, fits well, is approved by the organization governing the sport and is properly maintained.

If an injury occurs

- Stop exercise immediately to help prevent any further damage and to avoid recovery.
- Seek first aid
- Seek treatment from a health professional sooner rather than later and follow their advice on a safe return to activity**.**

Different attitudes about stretching to prevent injury

Stretching warming up and cooling down were previously thought to aid injury prevention during exercise. However**,** there is of evidence that these activities are effective in reducing exercise injury risk.

There is some evidence that warming up and cooling down might help to reduce muscle soreness after exercise. Even if don't prevent injuries. Careful stretching can be included as part of your overall warm-up and cool-down routine. Some people also find psychological benefits in stretching and warming up to put them in the right frame of mind for exercise or to help them relax after exercise.

CHAPTER THREE

3. RESEARCH DESIGN AND METHODOLOGY

3.1 Research Methodology

The research methods were selected and employed the descriptive statistical analysis method. This helped that the student researcher treated the current status of the problem.

3.2 Research Design

The research involved three steps. First, the available literature which is found from the libraries and on line internet resources were collected to get information on the profile of indigenous and non indigenous. Second, the basic questions were formulated and informed the direction of the study. Questionnaires were preferred because they made it possible to secure information from large number of people. Finally, the researcher had the opportunity to observe in augural session of meeting with athletes, coaches, clubs and managers which was organizing by local athletics federation. The meeting helped the researcher to understand the cause and preventions of short distance athlete's injury,

3.3 Source of the Data

The data were collected from primary and secondary sources. To maximize the acceptance of the research output it took primary data in every effort. Thus the primary data's were clubs, athletes, coaches, medical personnel working with athletes, federal and Regional Athletics federation Technical Staffs (FRAFTS) and clubs managers. In the process of obtaining important data from secondary sources, the student researcher assessed internets sources, relevant books, IAAF coaching manuals that were relevant to the topic under study.

3.4 Sampling and Sampling Techniques

By using probability (multi- phase) sampling and non probability (purposive) sampling the samples were obtained. Accordingly, the first stage information was obtained from national athletics federation technical stuffs and four coaches of national short distance athlete's of both sexes. In the second stage important information was also obtained from Southern Nation Nationalities People Republic Athletics Federation Technical Stuffs (SNNPRAFTS).

Finally, information was obtained from four Athletic clubs. The four athletics clubs taken as a sample were selected from 12 athletics clubs using the methods of simple random sampling. The study includes both sexes of all short distance athletes in these athletics clubs. The total population of short distance athletes were 90, where 45 males and 45 females. First athletes were selected from the sampled athletic clubs using the method of stratified sampling followed by simple random sampling. Accordingly, athletes selected from each club were four males and four females with total of 8. So, the total athletes taken as sample from four clubs were 60 from which 30 male and 30 females. The coaches selected as a sample were all coaches of short distance athletes working in the selected athletic clubs. The numbers of coaches selected were one from each club with a total of 4 based on purposive sampling. Managers were also taken from those selected athletic clubs based on purposive sampling.

3.5 Instrument for Data Collection

For the best way of the study data were collected with both open and closed ended questionnaires. The close ended questionnaires used were rating scales and dichotomies. The open ended questionnaires used were pictorial diagram of human anatomical structure presented to athletes, interview focus and observation. All information obtained through different instrument were organized and framed to suit analysis, finding and conclusion.

3.6 Procedure of data Collection

To conduct the study, the following relevant procedures were used. First relevant data were assessed from what have been done in relation to the problem Secondly before distributing the prepared questionnaire to respondents it was presented to professional and expertise to validate the questionnaire comments and corrections. After consolidation of questionnaire comments, it was translated to Amharic to make respondents understand correctly. Then questionnaire were distributed to respondents to make a pilot test at the athletics clubs level with relevant athletes and coaches. This helped again the student researcher to see the validity of each question item in terms of appropriateness and language clarity. Then the questionnaire was revised and administered depending up on suggestion collected from the concerned respondents. When administering the questionnaire, research assistants had the necessary orientation, how to distribute and collect questionnaire were used. Prior contacts were made with respondents to ensure willingness to participate in the study and to maximize the return rate of questionnaire.

3.7 Method of Data Analysis

When the data collected, using the aforementioned instruments were tabulated, analyzed and interpreted by using descriptive statistical analysis. Especially, frequency table, with percentage, and cross tabulation were dominantly used. Accordingly, data were interpreted to write up the findings and conclusions. The measurement scales were used in string, nominal, and interval scales.

CHAPTER FOUR

4.1 Findings and interpretation of data

This section discusses about the demographic, and socioeconomic condition, causes, levels, types of injury, and its possible prevention mechanisms of short distance athletes.

4.1.1. Demographic and Socioeconomic Condition of Respondents

Concerning the back ground or characteristics of the respondent in the study sex, age, and educational back ground were identified as airing indirect influence on the issue of this study. Regarding the influence of causes and possible prevention of injury matters no research was done on this issue. In these chapter as influencing causes, levels, types and possible prevention of injury in specified clubs as discribed from the findings as follows.

Table 1 Sex of respondent

No	Sex of respondents	frequency	Percent (%)	Valid %
1	Male	30	50.0%	50.0%
2	female	30	50.0%	50.0%
	Total	60	100.0%	100. %

Table 1 shows that the percentage of male and female respondents. As it can be shown on the table 50% were male and 50% were female. Hence male and female are found to have given equal chance.

Table 2 Age of Respondents

No	Item	frequency	Percent %	Valid %
1	16-23 years	35	58.3%	58.3%
2	24-29 years	25	41.7%	41.7%
	Total	60	100.0%	100. %

As the age of respondents is concerned, it can be displayed on table 2 that 58.3% of them are having an age ranging between 16-23 years and the rest 41.7 % of them are having an age ranging from 24-29 years. Thus, the majority of respondents have age ranging from 16-23 years

Table 3 Education Status of Respondent

No	Item	frequency	Percent (%)	Valid %
1	Below grade 10^{th}	48	80%	80%
2	10^{th} grade complete	8	13.3%	13.3%
3	10+2	3	5%	5%
4	Diploma	1	1.7%	1.7%
	Total	60	100.0%	100.0%

As we can be seen from table 3 that, 80% of the respondents an having an educational level below grade 10. This finding implies that the majority of short distance athletes are low educational status.

4.1.2 Findings and Interpretation of Causes of Injury

The researcher collected different causes of lower limbs of injuries and provided to 60 respondents. There fore this section finds out the response of respondents on each cause.

Table 4 improper foot wear

No	Item	frequency	Percent (%)	Valid %
1	Strongly disagree	1	1.7%	1.7%
2	Disagree	2	3.3%	3.3%
3	Agree	45	75%	75%
4	Strongly agree	12	20%	20%
	Total	60	100.0%	100.0%

As described on table 4 that, the respondents asked to whether their degree of agreement or disagreement on improper foot wear leads athletes potentially dangers on their foot or not, the majority of respondents confirm that 95% of them are agreed. The information obtained from the data showed that, causes of injury that athletes suffer from in the first rank was resulted from improper foot wear. Hence improper foot wear is the principal cause for injury. Further more, sex of respondent is cross tabulated with improper foot wear to know difference of impact influence sex wise. See table below.

Table 5 sex of respondent on improper foot wear cross tabulation

No	Sex of respondents	Strongly disagree	Disagree	Agree	Strongly agree	Total
1	Male	1	1	5	24	31
2	female	1	2	5	21	29
	Total	2	3	10	45	60

As it can be shown on table 5 respondents have agreed that improper foot wear highly cases of injury to both sexes.

Table 6 Group training

No	Item	frequency	Percent (%)	Valid %
1	Strongly disagree	2	3.3%	3.3%
2	Disagree	3	5%	5%
3	Agree	10	16.7%	16.7%
4	Strongly agree	45	75%	75%
	Total	60	100.0%	100.0%

As it is described on table 6 of the respondents asked to rate their degree of conformity or disconformities on group training whether it causes injury or not 91.7% of them are confirmed. The information obtained form the above showed that, causes of injury that short distance athletes suffer from group training. Hence group training can cause injury. In addition, Sex of respondent is cross tabulated to know whether there was a difference of impact influence in sex wise. See table below.

Table 7 sex of respondent on group training Cross tabulation

Group training without considering individual difference causes lower limb injury

No	Sex of respondents	Strongly disagree	Disagree	Agree	Strongly agree	Total
1	Male	1	1	5	24	31
2	female	1	2	5	21	29
	Total	2	3	10	45	60

As it can be seen on table 7 of the majority of male and female respondents have agreed that group training can causes injury without considering sex difference.

Table 8 Excessive load

No	Item	frequency	Percent (%)	Valid %
1	Strongly disagree	1	1.7%	1.7%
2	Disagree	1	1.7%	1.7%
3	Agree	28	46.6%	46.6%
4	Strongly agree	30	50%	50%
	Total	60	100.0%	100.0%

As shown on the table 8 the majority of them are confirmed that an agreement of 96.6% of them are cause injury. This information showed that, the causes of injuries athletes suffer with in the second level was also excessive load on the

body. The above information analyzed or understood that athletes running or performing activity beyond their limits tremendously receive excessive load. Thus, in turn excessive load on the body expose to injury. Similarly Sex of respondent is cross tabulated with excessive load to ensure difference impact influence in sex wise. See table below

Table 9 Sex of respondent on excessive load Cross tabulation

Athletes experiencing excessive load on the body can cause

No	Sex of respondents	Strongly disagree	Disagree	Agree	Strongly agree	Total
1	Male	1	1	13	14	29
2	female	0	0	16	31	31
	Total	1	1	28	30	60

As it can be displayed on table 9 excessive load on the body affect both male and females to injury without considering sex difference.

Table 10 intend too much too soon

No	Item	frequency	Percent (%)	Valid %
1	Strongly disagree	3	5%	25%
2	Disagree	2	3.3%	3.3%
3	Agree	7	11.7%	11.7%
4	Strongly agree	48	80%	80%
	Total	60	100.0%	100.0%

As it shown on table 10 respondents asked whether intending too much too soon can expose athletes to injury or not 91.7% of them come to consensus.

The information obtained from the above known that, the causes of short distance athletes injury suffer with in the third rank was intending too much too soon. Hence practicing too much too soon is the key cause of injury. Besides. Sex of respondent is cross tabulated with athlete intend too much too soon to know the difference influence in sex wise. See table below.

Table 11 Sex of respondent on intend too much too soon Cross tabulation

Intend too much training can easily victimize athletes to injuries

No	Sex of respondents	Strongly disagree	Disagree	Agree	Strongly agree	Total
1	Male	2	2	4	24	32
2	female	1	0	3	24	28
	Total	3	2	7	48	60

As it can be shown on table 11, 24 males and 24 female's respondents have harmony that athletes intending too much too soon can easily prone to injury. This information confirmed that there was similar impact of influence to both sexes.

Table 12 poor per iodization

No	Item	frequency	Percent (%)	Valid %
1	Strongly disagree	0	0%	0%
2	Disagree	2	3.3%	3.3%
3	Agree	7	11.7%	11.7%
4	Strongly agree	51	85%	85%
	Total	60	100.0%	100.0%

As it is displayed on the table 12, the majority of them asked to their degree of agreement or disagreement whether poor periodization can expose athletes to injury or not 96.7% of them are strongly agreed. These argued that, the causes of athletes injuries described that the third rank were poor periodization. Therefore poor per iodization can also cause injury. Moreover, sex of respondent is cross tabulated with this variable to know whether there was a difference of impact influence in s ex wise. See table below.

Table 13 sex of respondent on poor periodization Cross tabulation

No	Sex of respondents	Strongly disagree	Disagree	Agree	Strongly agree	Total
1	Male	0	2	4	27	33
2	female	0	0	3	24	27
	Total	0	2	7	51	60

As it can be displayed on table 13.33 males and 27 female's respondents have agreed that poor per iodization can causes injury. This reality confirms that both sexes responded without distinction.

Table 14 Excessive distance (frequently) running

No	Item	frequency	Percent (%)	Valid %
1	Strongly disagree	3	5%	5%
2	Disagree	4	6.7%	6.7%
3	Agree	40	66.6%	66.6%
4	Strongly agree	13	21.7%	21.7%
	Total	60	100.0%	100.0%

As it can be seen on table 14 of the respondents asked to rate their degree of consensus or non consensus on whether excessive distance (frequently) running can expose athletes to injury or not 88.3 of them come to consensus. The information tells that causes of short distance athlete injury that suffer from the fourth rank of excessive distance (frequently) running. From these we understood that excessive distance (frequently) running also cause injury. Likewise, Sex of respondent is cross tabulated with excessive distance to know whether there was a difference of impact influence in sex wise. See table below.

Table 15 sexes of respondent on excessive distance (frequently) running cross tabulation

The onset of symptom for injury is related to frequently running (excessive distance)

No	Sex of respondents	Strongly disagree	Disagree	Agree	Strongly agree	Total
1	Male	2	2	21	7	32
2	female	1	2	19	6	28
	Total	3	4	40	13	60

As it can be displayed on table- 15 majority of males and females respondents have agreed that excessive distance (frequently) running can causes injury to both sexes without variation.

Table 16 excessive (overload/training

No	Item	frequency	Percent (%)	Valid %
1	Strongly disagree	4	6.7%	6.7%
2	Disagree	10	16.6%	16.6%
3	Agree	34	56.7%	56.7%
4	Strongly agree	12	20%	20%
	Total	60	100.0%	100.0%

As it cab be shown on table 16 the respondents asked to their degree of agreement or disagreement on whether excessive (overload) training expose athletes to injury or not 76.70% of them agreed. The data obtained from the

above information cause of short distance athletes injury suffer with in the fifth level was excessive (overload) training. So, it causes injury to the athletes. Furthermore, Sex of respondent is cross tabulated to know whether there was a difference of impact influence in sex wise. See table below

Table 17 sex of respondent on excessive (overload) training

The onset of symptom for injury is related to excessive (overload) training

No	Sex of respondents	Strongly disagree	Disagree	Agree	Strongly agree	Total
1	Male	2	4	18	5	29
2	female	2	6	16	7	31
	Total	4	10	34	12	60

The most important findings that we can see from table 17 of male and female respondents have agreed that excessive training can causes injury

Table 18 Malnutrition

No	Item	frequency	Percent (%)	Valid %
1	Strongly disagree	3	5%	5%
2	Disagree	4	6.7%	6.7%
3	Agree	34	56.7%	56.7%
4	Strongly agree	19	31.6%	31.6%
	Total	60	100.0%	100.0%

As it can be described on table 18 the respondents asked to their degree of agreement or disagreement whether malnutrition can expose athletes to injury or not 93.7 of them are agreed. This information showed that, cause of injury that athletes within the most level were malnutrition. Still, sex of respondent is cross tabulated with malnutrition to know whether a difference of impact influence in sex was wise. See below.

Table 19 sex of respondent on malnutrition crosses tabulation

Athletes who unable to afford himself with nutrition diet can easily victimized by injury

No	Sex of respondents	Strongly disagree	Disagree	Agree	Strongly agree	Total
1	Male	2	2	18	10	32
2	female	1	2	16	9	28
	Total	3	4	34	19	60

The most important findings which can see from table 19 is that, majority of male and female respondents have agreed that malnutrition can causes injury without sex difference.

Table 20 poor techniques

No	**Item**	frequency	Percent (%)	Valid %
1	Strongly disagree	20	33.3%	33.3%
2	Disagree	18	30%	30%
3	Agree	14	23.3%	23.3%
4	Strongly agree	8	13.3%	13.3%
	Total	60	100.0%	100.0%

As it can be described on table 20 of the respondents asked to whether poor technique can leads athletes to injury or not 63.3% of them are refused. The information obtained form the above explained that, poor technique cannot cause injury to the athletes. Besides, sex of respondent is cross tabulated with poor technique to know whether there was a difference of impact influence in sex wise. See table below.

Table 21 sex of respondent on poor technique crosses tabulation

Poor technique of short distance athlete leads to injury

No	Sex of respondents	Strongly disagree	Disagree	Agree	Strongly agree	Total
1	Male	12	8	7	4	31
2	female	8	10	7	4	29
	Total	20	18	14	8	60

As it can be seen on table 21 male and 18 female respondents have rejected that, poor technique cannot causes injury. They have similarity in their Reponses. This fact confirms the finding presented on Table 20

4.1.3 Findings and interpretation of level of injury

We discusses about level of injuries with which athletes encounter during their training program. Accordingly, first, second and third level injuries are investigated.

Table 22 first level injuries

No	Item	frequency	Percent (%)	Valid %
1	Strongly disagree	6	10%	10%
2	Disagree	12	20%	20%
3	Agree	13	21%	21%
4	Strongly agree	29	49%	49%
	Total	60	100.0%	100.0%

Table 22 shows that 70% of them contract to have first level injury. The first level injury appears in the second rank in its occurrence. Furthermore, the response of respondents was cross tabulated sex wise. See table below.

Table 23 sex of respondent cross tabulated with first level injury

Athletes encountered lower limb injury that causes pain after exercise and also felt some hours after exercise has stopped.

No	Sex of respondents	Strongly disagree	Disagree	Agree	Strongly agree	Total
1	Male	4	8	6	20	38
2	female	2	4	7	9	22
	Total	6	12	13	29	60

he findings which can be described from table 22 is that, most male and female respondents contract that they encounter first level injury without considering sex difference. This fact proved or described on table22

Table- 24 Second level injuries

No	Item	frequency	Percent (%)	Valid %
1	Strongly disagree	9	10%	10%
2	Disagree	4	6.7%	6.7%
3	Agree	24	40%	40%
4	Strongly agree	26	43.3%	43.3%
	Total	60	100.0%	100.0%

As it can be seen from table 24 that 83.3% of the respondents were contract to having second level injury. It was the first rank of injury that majority of athletes encountered during their athletic career. Furthermore, the response of respondents was cross tabulated with second level injury to determine the difference in sex wise. See table below.

Table -25 Sex of respondent cross tabulated with second level injury

Athletes encountered lower limb injury that feels

highly discomfort , and yet block training and competition

No	Sex of respondents	Strongly disagree	Disagree	Agree	Strongly agree	Total
1	Male	2	3	14	15	35
2	female	4	1	10	11	26
	Total	6	4	24	26	60

The most important findings that can see from table 25, the majority of male and female respondents contract to encounter second level injury during their training and competition with out sex difference.

Table-26 Third level injury

No	Item	frequency	Percent (%)	Valid %
1	Strongly disagree	14	(14) 23.33%	23.33%
2	Disagree	20	(20) 33.33%	33.33%
3	Agree	12	(12) 20%	20%
4	Strongly agree	14	(14)23.33%	23.33%
	Total	60	(60)100.0%	100.0%

As we have seen from the table 26 that, 56.7%(34) respondents were disagreed to this injury. From these we can conclude that most athletes did not

experience the problem. Moreover, response of respondents is cross tabulated sex wise on table below.

Table- 27 Sex of respondent cross tabulated with third level injury

Athletes encountered injury that causes severe discomfort and recognized as pain that limits training and racing performance

No	Sex of respondents	Strongly disagree	Disagree	Agree	Strongly agree	Total
1	Male	6(42.9%)	12(60%)	6(50%)	9(64.3%)	33
2	female	8(57.1%)	8(40%)	6(50%)	5(35.7%)	27
	Total	14(100%)	20(100%)	12(100%)	14(100%)	60

As it can be shown in table 27, there is an obvious similarity between two sexes but majority of them disagreed to encounter third level injury.

4.1.4 Findings and interpretation of type of injuries

The student researcher presented the picture of human anatomical muscular structure of lower limbs to 60 respondents and requested them to pin point the area where they feel pain and suffer the injury. Therefore, these section discuses the response of respondents in both sexes independently.

Table-28 male responses

N.o	Type	Frequency	%
1	Hamstrings	17	18.8
2	Shin splint	16	17.7
3	Achilles tendonitis	13	14.4
4	Plantar fasciitis	12	13.3
5	Quadriceps pain	10	11
6	Lower leg compartment syndrome	8	8.8
7	Iliotibial band syndrome	7	7.7
8	Knee Joint pain	6	6.6
9	Ankle sprain	1	0.9

The information for table 28 showed that, the types of injuries male athletes encountered with in the first rank was hamstring, second was shin splints the third level injury type recorded was Achilles tendonitis fourth rank recorded was plantar fascistic, fifth rank recorded was quadriceps pain the sixth was lowered compartment syndrome, seventh level injury type athletes encounter was illiotibial band syndrome, eight encounter was knee joint pain and ankle spriaim respectively. From the information analyzed we understand that male short distance athletes mostly encountered with hamstring, shin splint, Achilles tendonitis, plantar facilities, and quadriceps pain respectively. Ankle sprain is the least observed injury type from the responses.

Table-29 Female Responses

N.o	Type	Frequency	%
1	Hamstrings	16	17.7
2	Shin splint	14	15.6
3	Achilles tendonitis	13	14.4
4	Quadriceps pain syndrome	12	13.3
5	Plantar fasciitis	11	12.2
6	Iliotibial band syndrome	10	11.1
7	Knee Joint pain	8	8.8
8	Ankle sprain	4	4.4
9	Lower leg compartment	2	2.2

The information from the table 29 showed that, the types of injuries female short distance athletes encountered was first hamstrings, second level injury typed occurred was shin splint, third Achilles tendonitis, the fourth level injury type recorded was quadriceps pain syndrome fifth level injury type registered was plantar fascistic, the sixth level injury type was Illiotibial band syndrome, seven knee joint pain, Ankle sprain and lower leg compartment syndrome respectively. From the information obtained or understood that female athletes mostly encountered with hamstrings, shin splint, Achilles tendonitis, quadriceps pain syndrome, and plantar fascistic, respectively lower leg compartment is the least observed injuries from the responses.

4.1.5. Findings and interpretation of possible injury prevention

This section discusses about possible prevention mechanisms of injury of short distance athletes. Accordingly the responses of respondents were treated as follows.

Table-30 Massage

No	Item	Frequency	Percent (%)	Valid %
1	Yes	44	73.3%	73.3%
2	No	16	26.7%	26.7%
	Total	60	100.0%	100.0%

As massage can be described on table 29, that respondents asked to reply yes or no from the alternative give and 73.3% of them accepted it, The information obtained from the above showed that, massage ranked the first injury prevention mechanisms. The awareness and the knowledge of respondents on massage is very significant and they used it before and after training. Furthermore, the response of respondents was cross tabulated with massage to know whether there is a similarity of impact influence in sex wise. See table below.

Table – 31 Sex of respondent cross tabulated with massage

Do you take massage before and after training and competition?

No	Sex of respondents	Yes	No	Total
1	Male	24	9	33
2	Female	20	7	27
	Total	44	16	60

As shown on table 31, there is a great difference between male and female response on massage that means the majorities are accepted.

Table – 32 Prior medical examinations

No	Item	Frequency	Percent (%)	Valid %
1	Yes	12	20 %	20%
2	No	48	80%	80%
	Total	60	100.0%	100.0%

As it can be described on table 32 that, the respondents use the alternative of yes or no whether they take prior medical examination before joining clubs or not and 80% of them given negative response. The information obtained from the above showed that taking medical examinations was ranked as the second important injury prevention mechanism. These described that, there was no

attention for medical examination from the beginning. Besides, the response of respondents is cross tabulated with taking prior medical examination to know whether there was a difference of impact influence in sex wise. See table below.

Table -33 Sex of respondent cross tabulated with prior medical examination

Do you take medical examination before joining clubs?

No	Sex of respondents	Yes	No	Total
1	Male	1	28	35
2	Female	5	20	25
	Total	12	48	60

As it shown on Table 33, there is a difference between male and female respondents on taking prior medical examination. This fact also confirms the finding presented on table32.

Table-34 Athletes fitness

No	Item	Frequency	Percent (%)	Valid %
1	Yes	14	23.3%	23.3%
2	No	46	76.7%	76.7%
	Total	60	100.0%	100.0%

As it can be displayed on table 34 that respondents were given an alternative yes or no to choose. 76.7% of respondents were replied with refused. The information obtained revealed that, it is the third important injury prevention

mechanism. Besides that, the response of respondents is cross tabulated with athlete's fitness to know whether there was a difference of impact influence in sex wise.

Table -35 Sex of respondent cross tabulated with athletes fitness

Do you feel better abut the current status of your fitness?

No	Sex of respondents	Yes	No	Total
1	Male	7	26	33
2	Female	7	20	27
	Total	14	46	60

As shown in Table 35, there is a difference between male and female response on fitness. This confirms the findings on table 34

When we come to coaches, managers, clubs, technical stats of athletics federation and Medical doctor working with athletes interviewed about athlete fitness, prior Medical examination and taking massage, all totally agreed or consensus that there is no proper measurements, professional coach, athletes selection and fulfill requirement of short distance athletes. Because of these athletes injured frequently.

CHAPTER FIVE

Summary, Conclusion and Recommendation

5.1 Summary

The questionnaire was distributed to 60 respondents with 100% response rate where by 50% male and 50% female. Hence male and female were found to have equal chance in this study. The majority of athletes incorporated in the study were age of ranging from 16-29 years and educational level of almost below grade 10. From these we can understand that majority of athletes engaged in short distance races have low educational status.

The study so far ilustrrates the causes, levels, types of injury, and possible prevention mechanism of short distance athlete's injury. With this view the researcher tried to investigate the following basic questions.

- What types of injury frequently occur in short distance athletes?
- What are the causes of injury of short distance athletes?
- What are the possible preventive mechanisms to be taken for injury of short distance athletes?
- What are the levels of injuries mostly encounter short distance athletes?

By descriptive statically analysis of data was gathered from athletes, Coaches, clubs, managers, technical stuffs of national and regional athletics federation; medical person working with athletes, and four national team coaches were interviewed. Questionnaire employed for the study composed of four parts. The first part causes, the second levels, the third types and the fourth possible prevention of injury. The researcher presented pictoral/ diagram of human anatomical structure to identify types of injury. The researcher also gathered, organized required data using interview questions, and finally analyzed the following key finding and summary of the study.

1. As it is described on table-4 the respondents asked to their degree of agreement or disagreement on weather improper foot wear leads athletes to potential dangers on their foot or not almost all or 95% of them are agreed.

The information obtained from the data showed that, causes of injury that athletes suffer from in the first rank was improper foot wear. The interview with coaches confirmed shoes as the major contribution for occurrence of injury. Hence, improper foot wear is the principal cause for injury. Furthermore, sex of respondent is cross tabulated with improper foot wear on table-5 to know whether there was difference of impact of influence sex wise or not, however come up with no difference.

2. As it is described on table-6 of the respondents asked to their degree of confirmity or disconformities on group training whether it causes injury or not 91.7% of them conformed. The information obtained from the above showed that, cause of injury that short distance athletes suffer with in the second rank is resulted from group training. The observation confirmed that there was no strict follow up of coaches for athletes during their training activity. The interview from national coaches also confirmed that most of the time athletes are performing their duty in group. From these information I analyzed that most respondents were practicing group training while engagement of their normal training. Hence group training can cause injury. Furthermore, sex of respondents were cross tabulated with group training on table-7 to know whether there were a difference of impact influence in sex wise but closer with no difference.

3. As shown on the table-8 respondents asked to their degree of agreement or disagreement on weather excessive load expose to injury or not 96.6% of them are confirmed. This information showed that, the causes of injuries athletes suffer with in the second level are also excessive load on the body. Since running is a highly repetitive activity it may exceed beyond the capacity of the athletes. This condition may happen when athletes have been encouraged to perform at a level which are said to exceed their capacities. From the information analyzed we understood that athletes running or performing activity beyond their limits tremendously receive

excessive load. Athletes failing to cope up with the physical activities during session and these confirmed the above findings. Thus excessive load on the body is a core for the occurrence of injury. Furthermore, sex of respondent was cross tabulated with excessive load and get nearer up with no variation.

4. As it is seen on table 10, respondents asked whether intending too much too soon can expose athletes to injury or not 91.7% of them come to consensus. The information obtained from the above made known that, the causes of short distance athletes inury suffer with in the third rank was intending too much too soon. In short distance run one cannot achieve peak performance overnight. The desire of athletes cannot be successful if they intend too much too soon, but training is gradual process which must encompasses all rounded development. In these condition athletes puts themselves under them in to point of incomplete recovery. Hence practicing too much too soon is the key cause of injury. Besides, sex of respondent is cross tabulated with athlete intend too much too soon on table-11 and approach with no difference.

5. As it is displayed on the table-12, of the respondents asked to their degree of agreement or disagreement on whether poor periodizaiton can expose athletes to injury or not 96.7% of them are agreed. These showed that, the causes of injuries that athletes suffer from the third rank were poor periodizaiton. From the information analyzed, I understood that those athletes who were practicing, unorganized training and insufficient training can subject to unreasonable risk and this brings early fatigue. Therefore poor periodizaiton can also cause injury. Moreover, sex of respondent was cross tabulated with poor periodizaiton on table-13 to know whether there was a difference of impact influence in sex wise or not, and come near with no variation.

6. As it can be seen on table 14, the respondents asked to their degree of consensus or non consensus on whether excessive distance (frequently running) can expose athletes to injury or not 88.3% of them come to consensus. The information tells that causes of short distance athletes injuring suffer with the fourth rank was excessive distance (frequently running),. When the distance increase from the usual distance. The lower limb gets fatigue with much accumulation of lactic acid. When this lactic acid not properly removed from the muscle, it starts to dysfunction the normal physiological condition of the muscle and tendon. Athletes encounter inadequate recovery which leads to discomfort to continue training. By far the most crucial responsibility of coaches is that of supervision, but what researcher practically observed was negligence of coaches during such practical routine. From all these I understood that excessive distance (frequently running) also cause injury. Likewise, sex of respondent is cross tabulated with excessive distance (frequently running) on table-15 to know whether there is a difference of impact influence in sex wise but with no disparity.

7. As it can be shown on table 16, of the respondents asked to their degree of agreement or disagreement on whether excessive (over load) training can athletes to injury or not 76.7% of them are agreed. The data shown that, cause of injury that short distance athletes suffer from the fifth level was excessive training. Excessive training causes eccentric muscle pain because the training pattern is difficult to adapt. In addition, sex of respondent is cross tabulated with excessive training on table-17 to know whether there was a difference of impact influence in sex wise or not, however come out with no sex disparity.

8. As it can be described on table 18, of the respondents asked to their degree of agreement or disagreement on whether malnutrition can leads athletes to injury or not 93.7% of them are agreed. This information shown that, cause

of injury that athletes suffer from the sixth level was malnutrition. Athletes unable to get appropriate fluids, fruits, and vegetables can easily exposed to injury. Still, sex of respondent is cross tabulated with malnutrition on table-19 to know whether there is a difference of impact influence in sex wise or not, yet approach with no distinction.

9. As it can be described on table 20, of the respondents asked to whether poor technique can leads athletes to injury or not 63.3% of them are refused. Using economical style of running and avoiding the appearance of sitting while running is very important for athletes, the information obtained from the above shown that, poor technique can not cause injury to the athletes. Besides, sex of respondent is cross tabulated with poor technique on table-21 to know whether there is a difference of impact influence in sex wise or not, and closer with no difference.

10. Table -22 shows a clear indication that 76.7% of the respondents contract to have first level injury. The first level injury appears in the second rank in its occurrence. Athlete aware of this injury but pain does not occur during normal activity, so continue training without complain. Furthermore, sexes of respondents were cross tabulated on table-23 and appear with no sex dissimilarity in response.

11. According to the second level of injury it can be indicated from table 24 that, 83.3% them were having second level injury. It was the first rank of injury that majority of athletes encountered during their athletic career. The information showed that respondents may continue running for a period of time and then after wards protest of pain. This level of injury causes discomfort to athletes. The situation associated with these levels of injury tells that it is very critical issue which needs fast response from the concerned bodies. In addition, responses of respondents on table-25 were

cross tabulated with Second level injury to determine the difference in sex and advance no variation.

12. Regarding the third level of injury showed from the table 26 that 56.7% them were disagreed to this injury. From these we can conclude that most athletes did not experience the problem. Pain presents at the onset of training and interfere with speed and duration of training session constant pain, discomfort and loss of function. Moreover, the responses of respondents were cross tabulated on table-27 and draw closer with no sex difference.

13. The information from table 28 showed that, the type of injuries male athletes encountered with in the first rank was hamstring, second rank was shinspints third rank was Achilles tendonitis, forth rank was plantar fasciitis, the fifth rank was quadriceps pain, the sixth rank way lower leg compartment syndrome, the seventh rank was illiotibial band syndrome, the eighth rank was knee joint plan and ankle sprain respectively. From the information we obtained that male short distance athlete mostly encountered with hamstring shin splints, Achilles tendonitis, and plantar fascistic respectively. Ankles sprain is the least observed injury type from the response,

14. The information from table 29 showed that the type of injuries female short distance athletes first encountered hamstring, second ranked was shin splints, third rank was Achilles tendonitis, fourth rank was quadriceps pain, fifth rank was plantar fasciitis, sixth rank was illiotibial band syndrome, seventh rank was knee joint pain, eighth rank was ankle sprain and lower of comportment syndrome respectively. From the information obtained or understand that female athletes mostly encountered with hamstring, shin splints, Achilles tendonitis, quadraceps pain and plantar

fasciitis of respectively. Lower leg compartment syndpome is the least observed injures from the response.

Therefore, as shown in table 28 and 29, the occurrence of injury type was an obvious similarity between male and female athletes. They mostly encountered with hamstring, shim splint, Achilles tendonitis, quadriceps pain syndrome, and plantar fasciitis. The others Iliotibial band syndrome, lower leg compartment syndrome ankle sprain and knee pain were observed but not with majority.

The research proofs that the clinical report of national medical center approved me which is supportive to my study finding, these shown that type of injury national athletes encountered were similar to that of sampled clubs.

15. Regarding to table 30,that respondents asked to reply yes or no from the alternative give and 73.3% of them accepted it. The information obtained from the above showed that, massage ranked the first injury prevention mechanisms. The awareness and the knowledge of respondents on massage are very significant and they sometimes use it before and after training. The researcher also interviewed coaches whether athletes took massage or not, and confirmed that athletes sometime utilized it. On the other hand massage helps to prevent muscle imbalance, stimulates and relax stressed muscle. So, properly utilizing massage plays vital role for injury prevention. Furthermore, the response of respondents was cross tabulated with massage on table-31 to know whether there was a difference of impact influence sex wise or not and approach that there is obvious difference between in their response.

16. It can be described on table 32 that, respondents were provided with an alternative of yes or no to choose as to whether they take prior medical.

Examination before joining clubs or not and 80% them were given us negative response. The information obtained from the above data showed that taking medical examinations was ranked as the second important injury prevention mechanism. The interview to coaches and managers also confirmed that they didn't aware about the importance of medical examination. The national and regional athletics federation technical staffs were interviewed whether there is criterion set for the precondition during the recruitment of athletes to clubs or not and come up with negative response. These shows that, there was no attention for medical examination from the beginning. Besides, the response of respondents was cross tabulated with prior medical examination of table-33 to know whether there was a difference of impact influence in sex wise or not, and emerge with obviously difference to both sexes.

17. The other variables presented to respondents were about athlete fitness. It can be displayed on tale-34 that respondents were given an alternative yes or no to choose. 76.7% respondents were replied with refusal. The information obtained that, athlete finness it is the third important injury prevention mechanism. Flexibility must accompany with an increase of strength. Endurance and speed also must be developed readily. Athletes require strong muscle structure in order to maintain proper form and posture during running. Physical exercises and stretching's plays great role for the development of fitness. Exercise build strength while stretching in designed to increase and maintain flexibility. Stretching also done during cooling down after running is completed. The researcher also observed that athletes were not performing physical exercise and stretching properly and they were discomfort about their fitness. Besides, the response of respondents were cross tabulated with athlete fitness on table-35 to know whether there is a difference of impact influence in sex wise.

5.2 Conclusion

The information obtained from the analysis of data listed under 4.1.2 described that, causes of injury in the first rank was improper foot wear. The second rank causes of injuries were resulted from group training and excessive load. Causes of injury occurred in the third level were intending too much too soon and poor periodizaiton. Fourth level cause of injury registered was excessive distance (frequently running), over load training and malnutrition are cause of injury that athletes suffer with rank fifth and sixth poor technique respectively. The information obtained from table 20 and 21 confirmed that, majority of respondents come in to consensus that poor technique can not cause injury. In all causes male and female respondents were cross tabulated and contract that, there was obviously similarity in response to have the same impact of influence in all variables.

The most important findings that we analysis of data listed under 4.1.3 showed that the first level injury appears in the second rank; whereas the second level injury appears in the first rank. Majority of athletes encountered the second level of injury during their athletic career. These confirmed that respondents were suffered with but tolerate and pursue their training. Male and female respondents were cross tabulated and indenture with obviously similarity in responses. The third level injury was not mostly occurred. From these we can conclude that third level injury was not common problem for athletes pursue training.

The information obtained from data listed under 4.1.4 disclosed that, the prevalent types of injuries both male and female athletes encountered were

shin splint, hamstring , Achilles tendonitis and quadriceps pain syndrome respectively. The other least types of injury recorded were lower leg compartment syndrome, iliotibial band syndrome, ankle sprain and knee pain respectively. From this information we understood that short distance athletes mostly encountered with shin splint, hamstrings, Achilles tendonitis and quadriceps pain respectively. Ankle sprain and lower leg compartment were the least observed injuries from the responses.

The information showed that, massage ranked the first injury prevention mechanisms. The awareness and the knowledge of respondents on massage are very significant and they use it before and after training. Properly utilizing massage plays vital role for injury prevention. The information also showed that taking medical examinations before starting training was ranked second important injury prevention mechanism. It has been concord that respondents were not take medical examination before the inception of training. The other variable presented to respondents was about athlete fitness. It has been conformed that respondents were discomfort about their fitness. The information obtained that it ranked third important injury prevention mechanism.

The researcher come up with finding is, most athletes suffer with causes of injury, levels of injury types of injury, that frequently happens on lower limbs and those needs special attention with preventive measures. This research opens for the loop for other researcher to study the detail of the problems of the athlete. The scholars need to be involved in more is types of injury occurred in other parts of athletes bodies. Above all causes of injury that are intrinsic factors in depth research are very vital.

5.3 Recommendation

The research study identified in clubs are critically defective needing serious consideration other wise going to infect all corners of athlete's development projecting in to future predicament. With this view to improve the existing state of affairs and the researcher forwarded the following recommendations.

A. Coaches must avoid group training and treat individual difference with adequate supervision during their training routine.
B. Athletes must accomplish training routine within the frame work of their potential limits.
C. Athletes must consume sufficient and appropriate foods, fluids, fruits and vegetables.
D. Displaying and making awareness about types of injury to athletes and to concerned bodies helps to react and up on it for athletes healthily and their athletic career.
E. Athletes must improve their educational background so as to understand to complex situation related with injury.
F. There must be availability of proper wearing shoes for athletes.
G. Coaches must follow the schedule of athletics federation with careful, well manipulated progressive training during preparation, competition and transition period.
H. When athletes feel pain during or after training session immediately report to coaches is very important to get solution before it gets aggravation.
I. Understanding the causes by itself helps to prevent the onset of injury
J. Federation must design to offer the courses on massage so as to aquaint coaches with its necessary skill are indispensable to minimize injury.
K. Prior medical examination of athletes before recruitment to training must be conducted to reduce the risk of injury.

L. Educating or making awareness about causes, levels, types and possible prevention mechanisms to coaches, athletes and for other concerned bodies, will go a long way to minimize the number of athlete who un necessary from injury.

M. Athletes fitness must be maintained thought preparation and competition period.

N. Take responsibility for checking and maintaining the safty of exercise area and equipment

O. Avoid exercise when in pain or fatigued

P. Check environment and equipment safety in that consider hard or uneven surfaces, low levels of lighting and extreme weather conditions are just some of the environmental factors that can increase your risks of injury.

Q. Warm up and cool down before and after exercise helps to chosen muscles, increase blood flow and prepare your whole for exercise.

R. Make sure you have the correct safety equipment for the sports. Examples of safety gear designed to protect you during exercise include helmets, mouth guards, protective eye wear, shoes, shin guards, wrist guards, elbow and knee pads, gloves athletic cups and padding.

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Questionnaire Presented to al Respondents

Introduction

The main objective of this questionnaire is drawing of information about eayer of short distance athlete injury and prevention mechanism. Thus, this questionnaire strives at producing a new and most efficient why of drawing the causes of injury and pin preventive mechanism. Based on this, your accurate understanding and filling of this questionnaire is indispensable to promote the study at attaining its set objective.

Thank you for taking your time to responds

NB

1. There is no need of writing your name on this questionnaire
2. Your response to this questionnaire with a high responsibility is indispensible to the fulfillment of the aim of the study.
3. Putting "X" is indispensable to confirm your agreement from the rating scale provided

   SD. Strongly disagree (0) A- agree (2)

   D. disagree (1) SA strongly agree (3)

Part one

1. Name of the institution _____
2. Address of the institution _____

   A- Kebele _____

   B- Town _____

   C- Zone _____
3. Sex of the resodnents

   Male ☐ female
4. Age of the respondents ☐

   17-22 ☐ 29-35☐

   23-28 ☐ 36 and above
5. Educational status of the respondents☐

   Below grade 10 ☐ 10+2☐

   10th grade complete ☐ College level BSC above

Part Two

Questions to be presented to athletes putting is indispensable to confirm your agreement from the rating scale (likert scale)

The options are

SD- strongly disagree (0) A- agree (2)

D- Disagree SA- strongly agree (3)

Statement of which category one	0	1	2	3
1.1 excessive load on the body can cause or exposed to injury				
1.2 poor per iodization for their training and competition can easily resulted with athlete's injury.				
1.3 improper foot wear leads athlete to potentially dangerous blisters to foot				
1.4 group training with out considering individuals difference can causes injury				
1.5the consent for the symptom of injury is related to frequently injury				
1.6 the onset for the symptom of injury is related to over board training				
1.7 athletes who do not perform warming up and cooling down properly he/she can easily exposed to injuries				
1.8 Athletes who unable to afford himself with attritions diet can easily victimized b injury				
1.9 poor technique of short distance athlete leads to injury				
10. athlete intend too much training can easily victimized to injury				
Statement of category two	0	1	2	3
2.1 athletes encourage lower limb injury so server that prevent any attempts at running				
2.2 athletes encouraged lower limbs injury that cause server discomfort and recognized as pain that limits training and reaching performance				
2.3 athletes encountered lower limb injury that feels highly discomfort and yet lock competition				

3. Do you feel better about current status of your fitness?

   Yes ☐ No☐

4. If your answer it yes for questions no.3 how you explain it ?_____

   _____

5. Do you take massage before and after training and also after competition?

   Yes ☐ No☐

6. If your answer is yes for question no.5 discuss the details

   _____

   _____

7. Do you medical examination before joining clubs?

8. If your answer is yes of question no.7 discuss the details

   _____

   _____

Part Three

Interview presented to coaches, managers, club, technical stuff and medical person working with athletes

1. How injuries can be prevented?
2. What are the causes of injuries?
3. Are there any courses injury care and prevention from the federation?
4. How do you see athletes engaged in any excessive load with out the consent of coaches?
5. What do you suggest about the materials shoes)
6. How do you see the important of priors conducting medical examination before the inception of training .
7. What do you say about the current status of your athlete's fitness?
8. How do you see the importance of massage?

አዲስ አበባ ዩኒቨርሲቲ

የስነ ትምህርት ኮሌጅ

የስፓርት ሳይንስ ትምህርት ክፍል

መመሪያ;-

የዚህ መጠይቅ ዋና ዓላማ የአጭር ርቀት ሯጮች ጉዳት መንስኤና የመፍትሄ ሀሳብ መረጃ ለማግኘት ነው፡፡ መጠይቁ የጉዳት መንስዔ እና መከላከያ ዘደዉን በተገቢው ሁኔታ ለማመልከት ነው፡፡ ስለዚህ መጠይቁን ተርድቶ መሙላት በጥናቱ ዓላማ መሳካት ወሳኝነት አለው፡፡

ጊዜዎን ሰውተው ምላሽ ሰለሰጡን እናመስግናለን፡፡

ማሳሰቢያ፡

1. **በመጠይቁ ላይ ስሞን መግለጽ አያስፈልግም**
2. **ለጥናቱ ይበጃል ተብሎ ለአትሌቶች የተዘጋጀውን መጠይቅ በመረዳት ምላሽ እንዲሰጡን ከእንግሊዘኛ ወደ አማርኛ ተተርጉሟል**
3. **ሀላፊነት በተሞላ ሁኔታ ለመጠይቁ የሚሰጡት ምላሽ ለጥናቱ ዓላማ መሳካት እጅግ መሳኝ ነው፡፡**
4. **የ‹‹ X›› ምልክት በመጠቀም ምላሽ ማረጋገጥ ወሳኝት አለው**
5. **ለቀረቡት ጥያቄዎች ምላሽ ሲሰጡ**

    5.1 **አዎ/ አይደለም**

    5.2 **በጣም አልስማማም / አልስማማም / እስማማለሁ/**

በጣም አልስማማም(1) አልስማማም (1) እስማማለሁ (2) በጣም እስማማለሁ (3)

ክፍል አንድ

1. **የተቋሙ ስም**

2. **የተቋሙ የሚገኝበት አድራሻ**

   ሀ. ቀበሌ _____

   ለ. ከተማ _____

   ሐ. ዞን _____

3. **የምላሹ ፆታ**

   ወንድ ☐ **ሴት** ☐

4. **የምላሹ እድሜ**

   17-22 ☐ 29-35☐

   23-28 ☐ **36 እና ከዚያ በላይ**

5. **የምላሹ የትምህርት ደረጃ**

   ከ10ኛ በታች ☐ 10+2 ☐

   10ኛ **ክፍል ያጠናቀቀ** ☐ **የመጀመሪያ ዲግሪና ከዚያ በላይ**

ክፍል ሁለት

ቀጥሎ በሰንጠረዥ በተዘረዘሩት ጥያቄዎች በሚከተለው ሁኔታ መልስ ስጡ፡

በጣም አልስማማም (0) **አልስማማም** (1)

እስማማለሁ (2) **በጣም አልስማማም** (3)

1	የምድብ አንድ ጥያቄ	0	1	2	3
	1.1 በሰውነት ላይ ብዙ ጫና ማድረስን ለጉዳት መከሰት ዋና ምክንያት ሊሆን ይችላል፣				
	1.2 የስልጠናና የውድድር ቁጥር በአግባቡ አለመንደፍ አትሌቱን ለጉዳት ይዳርጋል።				
	1.3 በስልጠና ጊዜ ተገቢ ያልሆነ የጫማ አደራረግ መከተል በታችኛው የእግር ክፍል በላይ በዋናነት ጉዳት ያስከትላል።				
	1.4 የእርስዎ የአካል ብቃት ባላገናዘበ ሁኔታ በቡድን የሚሰጠውን ሰልጠና ጫና ውስጥ በመግባት ለጉዳት ተደርገዋል።				
	1.5 የጉዳቱ ምልክት ሩጫን ------ ጋር ያያይዛል				
	1.6 የጉዳቱ ምልክት ከሰልጠና ጫና መጨመር ጋር ይያያዛል።				
	1.7 ዋናውን የስልጠና ሂደት ከመጀመርና ከማጠናቀቅ በፊትና በኋላ ሰውት ያለማሟሟቅና ማቀዝቀዝ ለጉዳት ያጋልጣል።				
	1.8 እራሱን በተመጣጠነ ምግብ ያልተንከባከበ እትሌት በቀላሉ ለአካል ጉዳት የመጋለጡ ዕድል ሰፊ ነው።				
	1.9 በአትሌቱ የቴክኒክ ጉድለት ምክንያት በቀላሉ ጉዳት ሊከሰት ይችላል።				
	1.10 በአጭር ጊዜ ውጤት ለማምጣት ሲባል ከፍተኛ ጫና ውስጥ ገብቶ መለማመድ ለጉዳት ያደርጋል።				
2	የምድብ ሁለት መጠይቅ				
	2.1 ጉዳት ከተከሰተ በኋላ ምቾት በጎየለኛ ሁኔታ የሚከላከል ሲሆን የስልጠና እና የውድር ተሳትፎ ይገድባል።				
	2..2 የጉዳት ዓይነት በስልጠና ሂደት ምቾት የሚላክል ሆኖ የሰልጠና ሂደቱን የሚያደናቅፍ ነው።				
	2..3 የጉዳት ዓይነት የአካል እንቅስቃሴ ከተጀመረ በኋላ የሚሰማ ሰሜት ሆኖ እንቅስቃሴ ከተጠናቀቀ ጥቂት ሰአት በኋላ ይተዋል።				

3. ስለአካል ብቃትሞ እና ሰላአጠቃላይ ሰልጠና ላይ ጥሩ ስሜት

አልሞት? አሞ □ አይለደም □

4. ለጥያቄ ቁጥር ሦስት ምልስሞ አሞ ከሆነ ቢያብራሩልኝ?

5. ከሰልጠና በፊተና በኋላ ማሳጅ ይወስዳለ ?

አሞ □ አይደለም□

6. ለጥያቄ ቁጥር አምስት መልስሞ አሞን ከሆነ ሁኔታው ቢያስረዱ_____

_____

7. ከመቀጠሮ በፊት የጤና እና የአካል ምርምራ አድርገዋል

አሞ □ አይደለም□

8. ለጥያቄ ቁጥር ሰባት መልስሞ አሞን ከሆነ ሁኔታው ቢያብራሩልን _____

_____

ክፍል ሦስት

ለክለብ ማኔጆሮች፣ ለአሰልጣኞች፣ አትሌተክስ ፌዴሬሽን ቴክኒክ ባልደረቦችና እና ለሐኪሞች ተዘጋጀ ቀለመጠይቅ

1. **የአትሌቶች የአካል ጉዳትን እንዴት መከላከል ይቻላል?**
2. **የአትሌቶች ጉዳት ምንስኤው ምንድነው ብለው ያስባሉ?**
3. **በአትሌቶች አያያዝና ጉዳት መከላከል አስመልክቶ ከፌዴሬሽን የሚሰጥ ኮርስ አለ?**
4. **ከአሰልጠኝ ፍቀድ ውጪ ከፍተኛ ጫና ውስጥ ገብቶ ልምምድ የሚያከናውኑ አትሌቶች እንዴት ይመለከቷቸዋል?**
5. **ስለ አትሌቶች መሮጫ ጫማ አቅርቦት ያለዎትን አስተያየት ቢገልጹልን?**
6. **አትሌቶች የስልጠና ሂደት ከመጀመራቸው በፊት ቅደሚያ ምርመራ ጠቀሜታ እንደት ይመለከቱታል?**
7. **ስለአትሌትዎ ወቅታዊ አካል ብቃት እንዴት ይገልፁታል?**
8. **ለማሳጅ ጠቀሜታ እንዴት ይመለከቱታል?**

DECLARATION

I declare that this thesis is my original work and has not been presented for a degree in any another university and that all Sources of materials used for the thesis have been duly acknowledged.

Name: - : - ----------

Signature: ----------

Date: - ----------

This has been submitted for examination with my approval, as a university advisor.

Name: - ----------

Signature: - ----------

Date: - ----------