Factors that Affect Performance of Short Distance Athletes in the case of Ethiopian Youth Sport Academy

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This is to certify that the thesis prepared by Zewdie Gebreegziabher, entitled:

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DECLARATION

I hereby declare that this honors thesis presents my own work and had not been previously submitted to this or other institution for a degree, diploma or other qualification. Citations from the other authors were listed in the references. A signature of confirmation by:

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List of Acronyms

In this research the acronyms of different ideas was abbreviated below.

- IAAF (International association of athletics Federation)
- CECS (Coaching Education Certificate System)
- ROM (Range of Motion)
- LTAD (Long Term Athlete Development)
- ATP (Adenosine Triphosphete)
- DRI (Dietary Reference Intake)

Abstract

Athletics is a popular sport in Ethiopia; so many athletes are doing training day to day throughout the year with so many obstacles that hinder their performance. The objective of this study was to find out major factors that affect the performance of short distance athletes of Ethiopian youth sport academy Addis Ababa and Asela campus. The research method of this study was descriptive survey method. As stated clearly in the sample size this study take all target population, thus purposively all population were taken.. 80 respondents participated as the source of data. Data were collected through open and closed ended questionnaire for athletes, semi structured interview for coaches, technical directors, and physiotherapist and observation check list from 73 Athletes, 4 coaches and 1 physiotherapist those participated in the study. The data were valid because the instruments answered the research questions and reliable even if it repeated again. A pilot study was conducted with 8 respondents who were not part of the actual group. The data collected were organized, analyzed, tabulated and interpreted using SPSS software in percentile. As far as major findings of the study were concerned, majority of the respondents stated their view that, there were a problem of supplying sport wear and sport shoes providing on time, sport injuries and nutritional factors. Then the study was concluded that there were a problem of scientific training, problem of supplying sport wear on time, sport injuries, food and water contamination. The researcher recommended that to supply enough and quality sport wear on time.

Keywords: Factors, Performance, academy, Injury, Training, Affect

CHAPTER ONE

INTRODUCTION

1.1. Back ground of the study

Throughout history males and females were involved in different types of physical activities of sport. The natural and instinctive type of movement of man changes progressively in modern physical activities of sport.

Athletics sport involves in different events which is track and field events. Track event includes from short distance up to long distance (marathon) and also field events are jumping and throwing. Running event can held in track and out of track. Race walk, six kilometer female, eight kilometer male both sex up to marathon can held out of track in international level. All other out of this track events held in track Thomson, (2000).

In Ethiopia athletics is becoming a popular sport like other sport such as foot ball. So many athletes are doing training day to day throughout the year with so many obstacles that hinder their performance. But even though obstacles challenge for all most all athletes, there are a number of athletes starting from Abebe Bekila reach elite level that can compute in international level by winning marathon event record 2:15:16:2 by running bar foot. Furthermore, roads are usually cambered, and this forces the foot on the higher part of the slope to rotate inward (pronate) excessively, while the range of movement of the foot on the lower part of the slope is reduced. In addition, the leg on the lower side of the camber is artificially shortened and therefore acts as a short leg. Running on a concrete surface increased the risk of injury in women but not in men Macera et al. (1989).

There are different factors to take into account in athlete performance are; Athlete's age, Athlete's maturity, training age, different training phases of the year, Competition distances targeted, Number of training sessions per week, Mileage/kilometer weekly volume, Athlete's strengths and weaknesses. Dynamic response which can be very strong but deteriorates over the course of the stretch and static which remains constant for as long as the muscle is elongated Mathews, (1991).

Key Traits of successful Performers are why certain athletes able to reach their goals, while others do not? Successful performers possess the following five key traits.

1. Self-respect. Successful athletes value themselves as important and worthwhile. They hold themselves in high esteem, demonstrate respect for themselves, and take pride in everything they do.

2. Self-responsibility. Successful athletes take responsibility for their actions and their attitudes. They set goals and realize they must pay the price for success. They do not blame others for setbacks and are able to stay positive in difficult situations.

3. Self-confidence. Successful athletes believe in themselves. They do not allow anything or anyone to diminish their self-worth. They look forward to competition because it is an opportunity for growth. They always give their best effort and trust in the results.

4. Self-improvement. Successful athletes continually improve. They strive to master the skills necessary for success. They realize that athletic success is similar to climbing a never-ending staircase. There is always room for improvement, and each new step presents new challenges.

5. Self-forgiveness. Successful athletes are able to forgive themselves when they do not live up to their expectations. They understand they will experience setbacks and disappointments in their quest for success. They know how to get back up after they fall.

Dr. Ralph Vernacchia,(2009) sport psychologist at Western Washington University, believed peak performers combine the personal.

The path to Success attributes of attitude, passion, and character with the physical, mental, and emotional characteristics of confidence, commitment, concentration, and composure. Vernacchia branded these characteristics the four Cs of peak performance.

1. Confidence. Peak performers are confident, approach competition with positive anticipation, and do not worry needlessly about their ability to perform. They have inner peace in knowing they have prepared themselves for competition and will always give their maximum effort.

2. Commitment. Peak performers are relentless in their drive and determination to be the best that they can be. They hold themselves responsible for their actions and do not make excuses. They establish a reputation for giving 100 percent every time they go on the playing field or court.
3. Concentration. Peak performers are focused on the task at hand. They attend to the details of their performance and are able to quickly refocus when they get distracted.
4. Composure. Peak performers stayed composed. They recognize potential threats to their overall performance and utilize strategies to refocus and perform at the highest level.

Short distance athletics event includes 100m, 200m, 400m, male and female, 100m hurdle female, 110m hurdle male, 400m hurdle male and female, 4x100m relay male and female and, 4x400m male and female relay. This all short distance athletics branches shows that the event needs coaches with enough knowledge and skill to give scientific training. Every athletics event needs its own facilities, strategic plans and high effort in order to reach the athletes in high performance level. The performance improvement of short distance athletes in Ethiopia is not that much when the researcher compare with some other countries those they can highly competent in international level. Next to this, the performance improvement of short distance athletes of Ethiopian youth sport academy of the two campus were not as expected. For the performance improvement of short distance athletes, different things are goes together like professional coach, genetics, nutrition, scientific principle of training, physiological factor, psychological factor and facilities. From the experience of the researcher that has seventeen year job experience; in wereda athletics coaching / project/, in Maychew athletics training center coaching and Ethiopian youth sport academy short distance athletics coaching the researcher observe that there are factors that affect the performance of short distance athletes like those mentioned above.

Then standing from this the researcher was interested to study the factors that affect performance of short distance athletes of Ethiopian youth sport academy in the case of Addis Ababa and Asela campus.

1.2. Statement of the problem

Performance needs a proper scientific knowledge and skill of coach. It was basic thing to be successful in every competition and to transfer the trainees to different short distance athletics

clubs. Improving performance of short distance athletes need different things such as training materials, enough and professional coaches, physical fitness, sport wear, sport shoes, training regularly, proper recovery time, preventing from injury, good coach and athlete relationship, content of the nutrition, peaceful rest, free from anxiety and facilities are some from the factors that can help for the improvement of athletic performance. The more physically active the athlete is, the more carbohydrates that athlete needs to consume. Additionally, the amount of carbohydrates required is dependent on the athlete's total energy expenditure, type of sport and the environmental condition in which the athlete is competing. The recommended intake of carbohydrates for athletes ranges from 6 to 10 g/kg/day (Rodriguez N., DiMarco N., Langley S, 2009).

Novice runners' risk of injury is also greatest in those who have not been particularly active or physically fit before beginning more intensive training (Jones et al. 1993; 1994).

Then the researcher observed in short distance athletes of Ethiopian youth sport academy Addis Ababa and Asela campus as there might not have enough coaches, the recovery time from one session to the next session might not enough, content of the nutrition might not enough, the training area might not enough and quality, there might no enough training materials and sportswear and the athletes face with different injury occurred during training.

According to the researcher assumed the main problem of the short distance event was, there was a problem in the fulfillment of the above mentioned basic things.

Therefore to examine the above mentioned assumptions the research was interested to investigate this topic as a research problem.

1.3. Research questions

It was based on general what the researcher observed on the ground with different problems that can hinder for the short distance athlete performance. Based on this in order to find out the major factors that affect the performance of short distance athletes in Ethiopian youth sport academy in Addis Ababa and Asela campus, the researcher formulated the following research questions.

1. Is there enough number of professional coaches on both campuses?
2. Do the athletes get training in a scientific manner?
3. Is there enough standard training facilities and materials?

4. How the physiotherapists manage/treat/sport injuries?

1.4. Research Objectives

1.4.1. General objective

The general objective of this study was to find out major factors that affect the performance of short distance athlete's of Ethiopian youth sport academy in the case of Addis Ababa and Asela campus.

1.4.2. Specific objectives

The specific objectives of the study were listed below.

1. To identify the presence of enough number of professional coaches in the Academy.
2. To examine whether the short distance athletes training was scientifically done or not.
3. To identify the amount of standard training facilities and materials.
4. To assess how the physiotherapists manage/treat/sport injuries.

1.5. Significance of the study

Because of existing athletes in Ethiopian youth sport academy Addis Ababa and Asela campus were not successful in producing best performance short distance athletes who can compute in national and international level.

This study would be important for the improvement of performance of short distance athletes of Ethiopian youth sport academy in both campuses. Then in addition to this the study played a significant role in producing athletes with best performance in short distance running.

Finally this research would initiate other researchers for further studies in the short distance event of the two campus of Ethiopian youth sport academy.

1.6. Delimitation of the study

The aim of this study was to identify the major factors that affect the performance of short distance athletes thus it was delimited in both academy Addis Ababa campus and Asela campus with 73 (Seventy three) athletes, 23 (Twenty three) male athletes 23 (Twenty three) female athletes from Asela campus and 16 (Sixteen) male athletes and 11(eleven) female athletes in Addis Ababa campus. The whole short distance coaches, 3(three) male coaches from Asela

campus, and one female coach form Addis Ababa campus totally 4(four) coaches, one technical director from each campus and one physiotherapist from each campus a total of two physiotherapist and would recommended possible solution on which the athlete performance might improved in a specific case of these two campus.

1.7. Limitation of the study

The study of the major factors that affect the performance of short distance athletes in both academy Addis Ababa and Asela campus was limited by review of related literatures which was related with the major factors that affect the performance of short distance athletes, shortage of time to access everything better than that has been done and financial problems.

1.8. Operational definition

Operational definition on the description of the core /basic/ words that found in the study staring from the research title were.

- **Factors: -** the elements contributing to a particular result by influencing the activity.
- **Performance: -** the accomplishment of a given task measured against present known standards of accuracy and completeness.
- **Athletics**: - an activity which includes running, jumping, throwing and walking race.
- **Athlete**: - a sports person who participates in short distance athletics.
- **Injury**: - a bad occurrence which is happened during training or physical activity in the form of sprain, strain, dislocation and fracture.
- **Affect**: - an action influences on another part or body.
- **Training**: - a systhematic process of improving an athlètes performance in a selected event to meet the objective.
- **Professional**: - a person who have unique skill and knowledge in specific profession/ event/.
- **Coach**: - a person that helps or prepares someone to prepare for something.
- **Facilities**: - materials which are basic to held athletics training.
- **Nutrition**: - the process of taking meal like carbohydrate proteins and vitamins.
- **Sport Academy**: - a training center of different types of sports including athletics found in Addis Ababa with Asela campus branch.

1.9. Organization of the study

The research paper was organized in the following way.

The first chapter was an introductory part of the study which includes back ground of the study, statement of the problem, research objectives, research question, and significance of the study, delimitation of the study, limitation of the study, operational definition of key terms and organization of the study. The second chapter deals with detail information of related literature which related to the major factors that affect the performance of short distance athletes.

The third chapter included research methodology, research design, source of target population, sample size and sampling techniques, source of data, data collecting instrument (questionnaire, interview, observation) and data collecting procedure. The fourth chapter included data analysis and interpretation. And the fifth chapter of the study included summary, conclusion and recommendation of the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Major Factors Affecting Athletics Performance

Athletics need many factors to improve the performance of athletes. And there are also so many factors that can affect the performance. The following are factors that can affect the performance of athletes in athletics.

Technique, Altitude, Aerobic endurance, Sleep, Nutrition, Life style, Training methods, Environmental factors, Motivation, Prevention of injures , Training Surfaces, Training Shoes, Muscle composition, Coordination, Balance, Stages of athlete development, Training Principles, Flexibility, Power, Sprint mechanics, Speed development, Speed training, Reaction speed, Acceleration sprints, Speed endurance training and so on.

From this, the Major factors Affecting performance of short distance athletes are the following.

2.1.1. Technique

In long distance running during the push-off phase, the body is propelled forward via the support foot and finally the toes. The recovery phase is that period when the body is in the air with neither foot in ground contact. The support phase is when the foot recontacts the ground. As the body's center of gravity passes over the supporting foot, the drive phase of the next stride begins. As each leg is propelled forward, the opposite arm opposes all phases of the runner's stride. In other words, the left leg is forward at the same time the right arm is forward, and vice versa.

Factors to consider in instructing running mechanics include the following: Individual differences in running styles must be respected while basic principles of mechanics must be obeyed. Stride length (the distance between each foot) and stride frequency (the strides per second) are the basic components of running speed. Good running posture is produced by "running tall," with the runner's shoulders being square to the runner's hips, and weight centered over the hips and respective support foot. The greater the acceleration, the greater the body lean forward. Do not lean forward at slow speeds, as these results in an inefficient running style. (The forward leaning action causes the body to reach out with the foot to prevent falling. This results in braking, which slows the athlete and requires much physical effort to overcome the braking. Also, it leads to shorter stride length.) Distance runners should seek a running style that is

efficient for the majority of the race, yet leaves them effective for specific challenges in a race, such as when they decide to catch an opponent or kick at the end of a race. Arm action should be a "comfortable forward and back swing," with the angle between forearm and bicep at less than 90 degrees until a sprinting action is required and the optimal arm angle changes to approximately 90 degrees. During the arm action swing forward and back, the runner should avoid an arm carry that crosses the body's midline, as this ultimately causes a decrease in stride length. The arms control running, as the arms' cadence supports the runner's frequency in stride revolutions. The optimal foot strike is a "mid foot" strike, in which the athlete lands on a relatively flat foot in a supporting position under the hips, while the body's weight continuously moves forward to the ball of the foot as the respective leg straightens and finally into a push-off phase from the toes, Uebernoth.V, Frantz.De.L, John Bryson.et. Al (1984)

The stride cycle is similar to that of a sprinter, except that since running economy dictates a short stride, the heel recovery after the drive foot lifts from the ground will not raise all the way to the hips. It will recover to only about three-fourths of that distance for the miler when it starts to descend forward. The 400-meter sprinter with fairly high heel recovery. Both athletes will swing the free leg forward and downward, and move the foot back under the body's center of mass upon landing. Since the middle distance runner is moving at a slower rate than the sprinter, the body doesn't pass over the support foot as quickly and the foot can land almost directly under the center of mass. Dorsal flexion of the ankle joint is still an important issue to keep the athlete rolling off the ball of the foot. The arm carriage for the sprinter is very similar to that of the 800-meter athlete. The hands should be relaxed and swing forward to the midline of the body, but without crossing the midline. The hand will swing about chin high with the elbow bending to less than 90 degrees. On the downswing, the hand moves back toward the hip pocket as the elbow opens to about 120 degrees. The miler, on the other hand, will have a shorter arm stroke due to a shorter stride. The motion should be in the same direction to the midline but not crossing it. In both races, the shoulders should remain level and perpendicular to the direction of the run. No twisting back and forth of the torso should be observed. When watching the motion of the athlete's body at the top of the head, you should not see much up and down motion (vertical displacement).

An athlete's mechanical potential is measured by the ability to place each body segment in certain required positions to reduce ground time, improve stride frequency and stride length, and

reduce the air time of each stride. All of this, in turn, will contribute to faster speeds. Coaches must develop a technical model for each of their athletes that display their stride pattern. Coaches must then work. On modifying each athletes movement patterns to help the athletes improve their sprinting technique (thus improving their technical model) Macera et al. (1989).

Many coaches teach the high hurdles as a highly technical event, spending much of their time (and the athlete's energy) measuring and analyzing aspects of hurdling such as number of strides to the first hurdle, takeoff distance, landing distance, hurdle clearance techniques, and touchdown times, while neglecting the basic premise of the event the 110-meter high hurdle race is a sprint event. The majority of the coach's (and athlete's) energy should be spent on teaching the concept of sprinting over the hurdles. The athlete's speed is a function of his stride length and stride frequency. The hurdler's stride length is for the most part predetermined by the set distance from the starting line to the first hurdle, in between each of the 10 hurdles, and then to the finish. Ideally, there are eight strides to the first hurdle and three strides in between. This means that the young high school hurdler takes the same number of strides as the elite international-caliber hurdler. The difference between them is the hurdler's stride frequency. The coach, then, needs to develop the athlete's stride frequency, and does this by training him with fast rhythmic repetitions over the hurdles so as to adapt the athlete's speed to hurdling. Ralph Lindeman and John Millar.

2.1.2. Sleep

It is no secret that the body needs sleep in order to function at its highest level. Athletes tend to be especially limited on sleep time due to competition schedules, prolonged training days, and work demands Fischer, Nagai, & Teixeira, (2008). It is during the period of sleep that the body discards unnecessary information from the brain, heals, and gains energy for the next day’s activities. A good night’s sleep is imperative to enhancing performance Willis, (2009).

The central nervous system controls every aspect of athletic performance, from firing the correct sequence of muscle contraction to reflexes and reaction, exact biomechanical movements to function of skills Underwood, (2010). When athletes do not receive a full night of sleep, athletic performance decreases due to sleepiness. Researchers that studied ballet dancers found that health also deteriorated when sleep deprivation patterns were continuous Fietze et al., (2009). In another study, after thirty hours of sleep deprivation, running performance during a five-mile run

on a treadmill was reduced. An interesting finding during this same study was that the perceived effort remained the same; athletes run a shorter distance because the perceived effort was the same as that for five miles. The deleterious effect of thirty hours of sleep deprivation impaired performance as much as nine percent. Thus, loss of sleep may result in a significant reduction in aerobic performance Oliver, Costa, Laing, Bilzon, & Walsh, (2009).

Athletes in particular require more sleep than the average relatively sedentary individual Davenne, (2009). Researchers who performed a study in 2005 found that when athletes were allowed to sleep as much as they could, players experienced enhanced performances, better moods, and a decrease in fatigue compared to when customary sleeping habits were instilled Dement, (2005). This data is consistent with Dement's later study that found that the first factors to decline in performance are mood, cognitive function, and the ability of the brain to perform motor skills Davenne, (2009). According to Underwood (2010), the muscles need an appropriate amount of sleep in order to meet the demands of reflex and reaction impulses. Evaluative tasks, visual tracking, and focus also depend on adequate rest. Lack of sleep also reduces blood flow to the brain resulting in confusion and physical inabilities seen in individuals who are sleep deprived Underwood, (2010). Additionally, these symptoms peek during the mid-afternoon, predisposing athletes to poor performance in games performed at this time or later that evening Fietze et al., (2009).

It is not only the amount of time spent sleeping that affects performance. The quality of sleep received is also paramount to an athlete's ability to perform well. Deep sleep is essential for the release of growth hormones, which allow for the growth and repair of muscles, fat burning, and bone strengthening. The release and consequential effects of this hormone allow for an athlete to recuperate after an intense workout or competition and continue working toward better results. Sleep and physical activity have direct influences on each other Davenne, (2009).

2.1.3. Muscle Composition

Human variations in skeletal muscle properties affect maximum speed potentials. For example, individuals who have a genetic expression of fast-twitch muscle will be better suited to events that involve rapid and forceful muscle contractions such as sprinting. Researchers believe that muscle fiber composition is genetically determined and minimally affected by training. Type I, oxidative muscle fibers, are rich in mitochondria, red in appearance and carry great endurance capacity. Type II muscles fibers, also known as fast twitch muscle fibers, possess few

mitochondria, are white in appearance, and have a high capacity to contract forcefully and rapidly, due to having different structures of key proteins involved in muscle contraction that allow faster ATP breakdown and contractile protein movement during contraction. Fast-twitch fibers are commonly additionally classified as fast-twitch type a (IIa), (moderate fatigue resistance) and fast-twitch type b/x (IIb/x), (The Science of Speed: Determinants of Performance in the 100 m Sprint fatigue resistance). While training does not affect the distribution and amount of slow twitch and fast-twitch muscle fibers, type IIa and type IIb/x fiber types may interconvert with training. Muscle fiber size is greatly affected by age and training. Muscle fiber area increases by 15-20 fold (hypertrophy) from birth through young adulthood. While increases in muscular strength are often accompanied by muscle hypertrophy, an increased ability to generate force does not always occur with simultaneous increases in muscle cross-sectional area. This phenomenon is a result of an improvement in the capacity of the neuromuscular system to recruit and activate a greater number of muscle motor units. Uebernoth.V, Frantz.De.L, John Bryson.et. al (1984)

2.1.4. Stages of Athlete Development

The five stages to LTAD are indicating both the outline of the stage and the associated chronological and developmental age. Those are kid's athletics, multi event group, event group, specialization and performance.

Windows of opportunity for train ability within the long-term athlete development plan component timeframe.

Flexibility- in both males and females the ideal age for developing flexibility occurs between the ages of six and ten.

Skill-In males the ideal age for skill development is between 9 and 12 and for females it is between eight and eleven years.

Speed- for both males and females there are two windows of opportunity for development of speed. In males these are between seven and nine and thirteen and sixteen years. In females they are between six and eight, and eleven and thirteen years.

Strength- is best characterized by developmental age rather than chronological age. In males it is around twelve –eighteen months after PHV and in females it is at PHV.

Endurance for both males and females the optimal time period is at PHV. Caution is recommended in that aerobic power training should not be introduced until after PHV and then only progressively. Prior to this, the focus would be on aerobic capacity training. Thomson, (2000) IAAF CECS Introduction to coaching.

2.1.5. Training Principles

- The procces of training can be planned because it follows certain principles:

- Principles of Overload
- Principles of Reversibility
- Principles of Specificity
- Principles of Individualisation
- Principles of variety Thomson, (2000)

2.1.6. Flexibility

Flexibility as suppleness and can further define it as the range of possible movements in a joint or series of joints (de Varies, 1986). As a fitness component, flexibility encompasses all the elements contributing to the whole musculoskeletal system, such as the muscles themselves, ligaments, tendons, bony structures, neural pathways, joints and even the skin. These factors which contribute to and also constrain muscle flexibility and subsequent range of motion (ROM) are highlighted. Research has suggested that there are two components to the stretch-reflex: a dynamic response which can be very strong but deteriorates over the course of the stretch and static which remains constant for as long as the muscle is elongated (Mathews, 1991).

2.1.7. Nutrition

2.1.7.1 Carbohydrates

Carbohydrates are the most efficient source of energy for the body and are the only source of energy available for anaerobic activity. For this reason, inadequate intakes of carbohydrates have greatly impeded sport performance. Additionally, carbohydrates spare muscle tissue, are the primary energy source for the nervous system and help improve and maintain intestinal health Rosen bloom, C. (2000).

The Dietary Reference Intake (DRI) for carbohydrate consumption among adolescent males (ages 14-18 years old) is 100 grams per day DGA, (2010). The DRI is established as the minimum amount of carbohydrates needed to supply the brain adequate energy to function appropriately. This DRI does not take into consideration the carbohydrates needed to maintain blood glucose during exercise or the need to maintain adequate skeletal muscle glycogen Petrie H., Stover E., Hors will C., (2004).

The more physically active the athlete is, the more carbohydrates that athlete needs to consume. Additionally, the amount of carbohydrates required is dependent on the athlete's total energy expenditure, gender, type of sport and the environmental condition in which the athlete is competing Rodriguez N., DiMarcoN., Langley S., (2009). The recommended intake of carbohydrates for athletes ranges from 6 to 10 g/kg/day Rodriguez N., DiMarco N., Langley S., (2009). In general, athletes competing in endurance activities have higher carbohydrate needs than athletes competing in strength activities. It is recommended that an athlete consume no less than 50% of their calories as carbohydrates RodriguezN.DiMarcoN.LangleyS, (2009).

2.1.7.2. Protein

Protein supports the growth, maintenance and repair of body tissues, particularly muscle. Protein makes up enzymes that are needed to facilitate chemical reactions within the body. Protein helps maintain fluid balance, transport nutrients and helps defend the body against disease Rosen bloom, (2000).

For the athlete, protein plays an essential role for muscle growth and recovery following intense training Phillips S., Moore D., Tang J., (2007).

The DRI for protein for 14 to 18 year old males is 0.73 g/kg/day and the Acceptable Macronutrient Distribution Range for protein is 10-35% of total calories DGA, (2010). Adequate energy intake is essential to maximize utilization of protein specifically for muscle growth and repair Rosen bloom, (2000).

Both endurance and strength exercises influence the protein needs of an athlete. For the endurance athlete, an increase in protein oxidation during exercise provides the basis for an increased protein need.

The recommended protein intake for endurance athletes are range from 1.2 to 1.4 g/kg/day. For athletes participating in strength and resistance exercises, adequate protein is essential to support muscle growth and repair.

The recommended protein intake for strength athletes range from 1.2 to 1.7 g/kg/day Phillips S. Moore D. Tang J., (2007).

Extensive research has unveiled differences in absorption rates of specific proteins, whey and casein and their relation to sport performance, namely muscle anabolism Boirie, 1997 & Dangin, (2001).

These proteins are both derived from milk but have distinct differences in digestion and absorption. Why protein is considered a "fast" protein. Why is a soluble protein that is emptied from the stomach rapidly resulting in large increase in plasma amino acids over a short duration Boirie, (1997).

When proteins therefore ideal for stimulating rapid protein synthesis and is most effective when consumed directly before and after a workout Dangin, (2001).Casein protein is relatively insoluble and clots in the stomach, significantly delaying gastric emptying. Casein is considered a "slow" protein Boirie, (1997).

A continual supply of aminoacids is released over time as a result of this delayed gastric emptying creating dietary protein requirements are increased with exercise.

2.1.8 Prevention of Injures

2.1.8.1 Prevention through Skill

Skill is of great important in safety. You must see skills training as not simply a means of improving performance, but also as a means of preventing injury. Skill involves not only the physical control to make the body do what the mind instructs, but also the mental ability to read a situation, to know the risks involved, and so reduce them. It is also important for the athletes to develop the ability to relax in competition and training so that the body can be allowed to carry out the required activity at an automatic level. Tension and anxiety can break down the reflex nature of skilled performance and increase the risk of injury. Fatigue also causes a breakdown of skill. This fatigue may occur in a single training session or result from training loads being too close together. Whether overtraining is short term or long term a coach must be able to recognize the signs and symptoms of fatigue and reduce training levels before injury or illness occurs Uebernoth.V, Frantz.De.L, John Bryson.et. al (1984) Olympic games.

2.1.8.2. Prevention throughout fitness

Skill alone will not totally protect an athlete because he is at risk he understand activity beyond the limit imposed by his general fitness. We have already discussed in training theory the five main components of physical fitness.

Increased fitness reduces the risk of injures in two ways by its effect on the muscles, tendons and joints and by increasing general endurance so that the participant can compete for the whole duration of training and competition without fatigue Ibid (1984) Olympic games.

2.1.8.3. Prevention through strength

Muscles become stronger if they are made to work. The load that you choose must be appropriate to the athlete's requirement for his particular event. For example, it is obviously unnecessary to strength training must meet individual needs and the most appropriate training for muscles is frequent repetitions of the type of work required for individual skills. Correctly strengthened muscle is more resistant to injury. Ibid, (1984) Olympic games.

2.1.8.4 Prevention through Endurance

This involves both muscular endurance and cardio-respiratory endurance. The development of endurance fitness prevents fatigue. Injury statistics for all sports indicate that injures are more liable to occur what an athlete's is tiring. Ibid (1984) Olympic games

2.1.8.5. Prevention through Flexibility

This is often an understand aspect of physical fitness and is sometimes overlooked. Your athletes should understand that flexibility is important part muscle fitness and has an important role to play in injury prevention. Thigh muscles are clearly at risk from tearing, for example, hamstring strains. Flexibility is achieved by stretching in various ways. It is easy, uses little energy, requires no apparatus and improves with practice. Ibid (1984) Olympic games

2.1.9. Training Surfaces

Running surfaces are often too hard or too cambered and accordingly, in terms of the Nigg model (2001), require increased muscle activity to produce the preferred lower limb movement patterns. The ideal running surface is a soft, level surface, such as a gravel road, which is more forgiving and requires less muscle pre-activation to ensure optimum shock absorption. Unfortunately, we are usually forced to run on tarred roads or concrete pavements.

Furthermore, roads are usually cambered, and this forces the foot on the higher part of the slope to rotate inward (pronate) excessively, while the range of movement of the foot on the lower part of the slope is reduced. In addition, the leg on the lower side of the camber is artificially shortened and therefore acts as a short leg. Running on a concrete surface increased the risk of injury in women but not in men Macera et al. (1989).

Grass surfaces, although soft, can be uneven, while the sand on beaches is either too soft (above the high-water mark) or too cambered (below the high-water mark). Athletic tracks are of varying harnesses and introduce the problem of running continuously in one direction around a curve. This causes specific stresses on the outer leg, which must overstrike to bring the athlete around each corner. Similarly, uphill running puts the Achilles tendon and calf muscles on the stretch and tilts the pelvis forward, while downhill running accentuates the impact shock of landing and pulls the pelvis backward, thereby extending the back. Downhill running also causes the muscles to contract eccentrically, thereby increasing muscle damage Schwane et al. (1983). Over striding more common when, running downhill also increases the loading on the anterior calf muscles. A running injury may first occur shortly after the runner has changed to uphill or downhill running, or to running on the beach or on a tartan or cinder track, or to running continuously on an unfavorable road camber. The best plan of action is to vary the terrain on which you support. If persistent, see a physical therapist or chiropractor. They can develop a program to stretch the plantar fascia and strengthen the lower leg muscles; taping to support bottom of foot; prescribe a night splint to keep foot stretched run, to run in both directions around a track, and to avoid running on the beach, except for an occasional session Macera et al. (1989).

2.1.10. Training Shoes

Injury may follow a recent change in shoes, either simply from one pair of shoes to another, or from a training shoe to racing flats or spikes or, more commonly, from one model to another. Other significant potential factors in injury include running in worn-out shoes, either with worn-off heels, with heel cup and midsole having molded to your genetic foot faults (usually collapsing inward), or with mid-soles that have flattened out or become hard.

Surprisingly, one study found that runners who used the more expensive shoes Marti, Vader, et al. (1988) or who owned two pairs of shoes Walther et al. (1989) had more injuries. This probably reflects selection bias: only runners who run greater distances in training or who have

been injured previously are likely to buy expensive running shoes or to own more than one pair of shoes.

2.1.11. Training Methods

High training volumes and previous injury are two of the most important predictors of injury Powell et al. (1986); Marti, Vader, et al. (1988); Brill and Macera (1995); Van Mechelen (1992). But injury may also follow a sudden increase in training distance or speed (training too much, too fast, too soon, too frequently; Van Mechelen (1992); Brill and Macera (1995); Almeida et al. (1999) or may occur when undertaking too many races or long runs. Novice runners Risk of injury is also greatest in those who have not been particularly active or physically fit before beginning more intensive training Jones et al. (1993; 1994). Beginning runners who increase their training according to the rapid improvement in the fitness of their heart, lungs, and leg muscles may exceed the capacity of their bones (which adapt more slowly) to cope with the extra load caused by running and may develop tibia or fibular bone strain (shin splints) or a stress fracture. It is for this reason that it is advisable to follow the structured training programs for beginners proposed.

Different training methods can also promote muscle strength and flexibility imbalances. Every kilometer that we run increases the strength and inflexibility of the muscles most active in endurance running-the posterior calf, hamstring, and back muscles-with a corresponding reduction of strength in their opposing muscles---the front calf, front thigh, and stomach muscles. This strength/flexibility imbalance has traditionally been regarded as such an important risk factor in injury that many authorities Anderson (1975); Dram 1980; Beaulieu (1981), but not all Osler (1978), believe that it is important to maintain muscle flexibility as you train. For this reason, flexibility (stretching) exercises are usually prescribed to both prevent and cure injuries. However, insufficient stretching has not been found to be a risk factor for injury. In fact, injured runners were those who stretched for longer before running Jacobs and Berson (1986); Ijzerman and van Galen (1987). Indeed, a careful analysis of all the published literature Shrier (1999; 2000) and a controlled clinical trial Pope et al. (2000) all conclude that pre-exercise stretching, even when combined with adequate cool-down and warm-up sessions Van Mechelen (1992,1993); Brill and Macera (1995); Pope et al. (2000) does not influence the incidence of lower limb injuries. However, a full description of the commonly prescribed stretching exercises is included in this chapter for those who wish to follow a regular stretching program.

2.2. Stride Frequency

Conceptualizing the performance component of stride length is best accomplished by simply relating it lo distance. With stride frequency, time becomes our concern. When we reduce the time necessary to apply force at lake off and eliminate wasted lime in the air, stride frequency will improve. Achieving meaningful gains in this performance component have traditionally been overlooked. In the Speed Dynamics philosophy, we consider it a primary focus. Several contributors to improved stride frequency can be identified. Strength and power, dynamic mobility and flexibility all influence stride rate values. However, one performance capacity remains the most critical and vita! Improvement of the function and efficiency of the neurological system. It is the nervous system that controls every obvious and subtle movement of the body. Therefore, specific training of the euro-muscular system can and should begin from the earliest days of preparation. IAAF quarterly, (2009).

2.3. Sprinting Mechanics

Understanding proper sprinting mechanics, however, will help contribute to speed development. Mechanics has to do with the effects of energy and forces on the body. For sprinters, muscle power, neurological innervations, and length of limbs are the most important factors to consider. These factors influence the two main components that affect speed: stride length and stride frequency. Stride length is governed by the power the sprinter puts into the stride, or the ground contact time. Stride length also has an effect on the angle of the force to the ground. When athletes over stride, or place the landing foot too far forward of their center of mass, they create braking forces that slow them down. While trying to lengthen their stride, by over striding athletes may actually cause their stride to shorten. The best way to improve stride is not by changing technique but rather by improving the ability to produce power (i.e., speed and strength). Natural increases in stride length occur when greater power is applied to the ground due to improvements in stride frequency. Stride frequency is limited by the physiological makeup of each athlete. It is governed by the firing ability of the nerves stimulating the muscles, the fiber type the muscles are made up of, and the length of the limbs. The more fast-twitch fibers one has, the greater stride frequency one can attain. Shorter limbs rotate with greater frequency. Longer limbs have a lower stride frequency. Short sprinters therefore typically run with a very powerful stride and on average run the short races (60 to 100 meters) faster. Tall

sprinters run faster in the longer sprint races in which both speed and endurance are needed. Uebernoth.V, Frantz.De.L, John Bryson.et. al (1984) olympic games.

2.4. Speed Development

The suggestion from evidence in the literature and most coaches is that in order to best develop locomotive speed, the muscles engaged in that activity must have been enhanced through either a pre-speed period of strength training or through a simultaneous development of speed and strength Bompa, (1991).

In order to best address the training methods at the disposal of the coach in relation to speed development, we need to generate a framework that allows us to categorize the components of speed into domains of duration; in other words short-term speed and long-term speed. In order to do this we will break down the speed phases into those which are <6s (short-term speed) and those which are >6s but no more than 30s (long-term speed). This means that within the short-term speed training domain we are dealing with the ability to both react to a signal and also the acceleration capabilities of the athlete. The long term speed domain is therefore more associated with the ability to maintain peak speed. You should further consider that the ability to repeatedly produce speed whether short term or more long term is dependent on the ability to recover from the previous effort and thereby re-synthesize the utilized substrates Glister, (2005).

2.5. Speed Training

In any sprinting event, sprinting speed1 is the most important factor for predicting success. Even among 400m runners, it is usually the faster 400m sprinter who wins (other factors being equal). Any human exercise, such as sprinting, is a holistic activity and it is difficult to separate exercise into individual component parts. Nevertheless, for training purposes, we emphasize these separate components of sprinting speed development: sprinting ("full-speed," full recovery), relaxation, and power production. Sprinting, or absolute speed, can be trained through repetitions of short distances (30-100m), done at or near full speed, in a relaxed manner. We emphasize relaxation in all of our speed training and do not want the athlete to strain to hold full speed (in training). We also emphasize variety in these sprint work intervals, which may help avoid a plateauing effect (stagnation) that is possible in repetitive exercise at the same intensity Bernie Dare & Beverly Kearney Spring (1988).

2.6. Acceleration

This is evaluated by timing a full speed sprint, from a standing or crouch start. Timing starts from the first movement of the rear foot of the athlete. Only experienced athletes, typically of at least university level, should use a crouch start.

The acceleration ability of an athlete can be judged by subtracting the flying start 30 meters time from the standing or crouch start time. Accomplished performers register a 1.0 second differential, while the developing athlete's mark falls into the 1.4 to 1.6 range. The lowering of this differential is the best evidence of improvement in the acceleration phase. New Studies in Athletics no. 2-3, (1996), Uebernoth.V, Frantz.De.L, John Bryson.et. al (1984) Olympic games.

2.7. Speed Endurance Training

This is often overlooked as a component within speed development primarily because of the overlap into the domain of anaerobic endurance; however despite this overlap it should be considered as a component of speed endurance development. As with peak speed endurance development, training for this component is usually conducted with repetitions in excess of the race distance, But at near maximal speed with 90–95percent of maximal effort. Therefore the primary training method uses interval sessions based around the various methods already mentioned. The sessions can be manipulated by either altering the duration of the trial or manipulating the recovery period between each trial. Speed endurance within the speed training domain will focus on ATP-PC and anaerobic glycol sis reserves. Bernie Dare & Beverly Kearney Spring, (1988)

2.8. Motivation

2.8.1. What is Motivation?

Athletes motivation is regarded as one of the most misunderstood aspects of the coaching process Weinberg and Gould (2003), with coaches' definitions of this concept ranging from consequences and explanations of behavior to internal characteristics and external influences Finch (2002). This range of explanations is considered by many scholars to be the primary reason for the general lack of understanding of motivation among coaching practitioners Duda and Treasure (2001); Finch (2002); Weinberg and Gould (2003).

It is important to note that while the direction-of-effort and intensity-of-effort components of motivation have been defined separately, these dimensions are, in practice, interrelated Weinberg and Gould (2003). For example, if an athlete is highly attracted toward a particular sport, then he or she is likely to invest a great deal of effort in that particular situation. However, as Finch (2002) highlights, this may not always be the case. Here, she suggests that while an athlete may be attracted to a specific situation, they may fail to demonstrate any intensity of effort. Such a scenario could arise if an athlete does not enjoy a positive working relationship with the coach, if the grade of competition is too challenging or too easy, if the athlete receives no recognition for his or her efforts or performances, or if the athlete lacks any clear goals upon which to focus their efforts.

Finch (2002) suggests that coaches need to be aware of how motivation can be influenced by environmental sources (extrinsic motivation) as well as sources inside the athlete (intrinsic motivation). In this respect, intrinsic motivation refers to internal motives for participation, such as fun, skill improvement, enjoying challenges, and personal mastery of tasks.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Research Design

The methodology of the research study emerged out of the nature of the problem made the purpose of the study, and this study used qualitative and quantitative research design.

3.2. Source of Target Populations

The target population of the study was the whole male and female short distance athletes of Ethiopian youth sport academy Addis Ababa and Asela campus, the technical directorates of the two campus, short distance athletics coaches of the two campuses and physiotherapist of the two campuses. The participants in the target population of the researcher were four coaches, two technical directorates, one physiotherapist and seventy three athletes. Thus, the total target populations were 8o (Eighty).

3.3 Sample Size and Sampling Techniques

3.3.1. Sample Size

In this study the whole target population was taken, the whole short distance athletes, coaches, physiotherapists and, technical directorates of the two campuses of Ethiopian youth sport academy. Therefore due to less target population number the study did not take any simple; that was used 8o target population as a whole.

3.3.2. Sampling Techniques

As stated clearly in the sample size this study taken all target population, thus purposively all population were taken and no any technique was applied to take sample. The researcher used the whole short distance athletes, coaches, physiotherapists and, technical directorates of the two campuses of Ethiopian youth sport academy.

3.4. Source of Data

The researcher used primary and secondary source of data. The primary sources of data were athletes, coaches, technical directors and physiotherapist by questionnaire, interview, and observation. And review of related literatures as secondary sources of data.

3.5. Data Collecting Instrument

In order to get reliable information from the research participant, the type of instruments were questionnaire, interview and observation was used in order to gather all the necessary information from the participants. The questionnaire was prepared with both open and closed ended items.

The interview was conducted to gather data from short distance coaches, physiotherapists and technical directorates of the academy. More over in order to gather additional information for the study, the researcher also used observation for the coaches and athletes in the training time.

3.5.1. Questionnaire

The researcher selected the questionnaire as one of the data gathering instrument because of its appropriateness to collect information from a larger population. And on the other side it helped to secure relevant information free from bias. In addition to that it was also important to obtain descriptive information that answered the basic questions of the study with no doughty. The questionnaire of the research was prepared in English and then it was translated in to Amharic language. Then the athlete understood the content of the questionnaire easily. And finally, it was also simply analyzed in English language. The questionnaire was prepared by closed ended and open ended questions. Because the respondents were academy athletes those have been an ability to understand the question. So they have expressed their ideas without any problem.

Then the researcher mentioned 39 male athletes and 34 female athletes from the two campus of the academy a total of 73 athletes of short distance runners were taken for the questionnaire of the study.

Totally this would determined by using the whole athletes for the questionnaire.

3.5.2. Interview

The researcher used the semi structured interviewing method. In semi structured interviewing the interviewee responded with precise answers and described when additional explanation was needed. It didn't expect more detail life history of the participant.

3.5.2.1. Interview of Coaches

The researcher used the whole coaches of the short distance athletes of the two campuses for the interview. So the researcher selected a total of 4 coaches by taking as a whole.

3.5.2.2. Interview for Physiotherapists

Here also, the researcher has took both physiotherapists of the two campus for the interview those determined the issues. So the researcher selected 1 physiotherapist one from each campus.

3.5.2.3. Interview for Technical Directorates

Even in this interview the researcher used both technical directors of the Academy to identify the representative for interview. Then the researcher has taken 2 technical directorates one from each campus of Ethiopian youth sport academy.

3.5.3. Observation

First and for most, the participants were informed about the objective of the observation. And the researcher used overt observation method. Because they had to be volunteer unless otherwise if they had refused to be observed no one could force them. That means the researcher has to be honest and open about who was he and what he wants to do.

3.5.3.1. Observation of the Athletes

Because of all short distance athletes of the two campuses have taken as a whole so the researcher observed the whole athletes' openly three times from different direction when the coaches were coaching and the athletes are doing training.

Then 23 males and 23 female athletes taken from Asela campus and 16 male and 11 female athletes have taken from Addis Ababa campus. Then, 39 male and 34 female a total of 73 athletes of the two campuses of Ethiopian youth sport academy were taken for observation.

3.5.3.2. Observation for Coaches

The two campuses of the academy coaches, one female coach from Addis Ababa campus and 3 male coaches' form Asela campus were taken as a whole for observation while they were giving training.

3.6. Data Collecting Procedure

- The researcher designed the instrument (the questionnaire, interview and the observation), based on the nature of the topic.
- First and for most the researcher has contacted with the concerned body, administrative person of the two campus of the Ethiopian youth sport academy with a letter of cooperation in order to give permission and support for organization to collect data and obtain relevant information of the study.
- All participants of the study were informed about the purpose of the study.
- The social relationship for the observation was the first step in the collection of the data because this was the first hand information way of the data collection.
- The time of contact for distribution of questionnaire, observation, and interview was determined.
- All the questionnaires were revised how to distribute, collect and administering the concerned respondents.

Then these all things administered and facilitated by the research assistant for the data collecting ways.

3.7. Validity and Reliability of the Instrument

3.7.1. Validity of the Instrument

All the neccessary research questions were answered by the valuable research instruments of questionnaire, interview and observation. Because the instruments help to gather the necessary data from the short distance athletes, coaches, technical directors and physiotherapists of the academy.

3.7.2. Reliability of the Instrument

The instruments questionnaire, interview and observation that the researcher selected were reliable. Because even if it repeated again and again the result was similar. The researcher has implemented apilot study before the actual study carried out. A pilot study was conducted with 8 respondents who were not part of the actual group but has similar characterstics. The purpose of the pilot study was to check the relevance of the questionnaires design to collect data for the study. Generally the objective was to check the clarity of the questionnaire items. Accordingly, 10 questionnaires was distributed for 8 athletes.

3.8. Data Analysis Techniques

In this study the researcher used SPSS software and the analysis was done in description and presentation.

CHAPTER FOUR

DATA ANALYSIS, INTERPREATUON AND DISCUSSION

The fourth chapter deals with the interpretation and analysis of the data collected from respondents through questionnaire, interview and observation checklist from the whole population of the study.

The data gathered from the questionnaire were organized in a tabular form and interpreted by using percentage. Whereas the information collected through interview and observation checklist were qualitatively described in order to give appropriate answer for the basic questions set in the study.

4.1 The general Characteristics of the Athletes

Sex	Frequency	Percent
Male	39	53.4%
Female	34	46.6%
Total	73	100.0%
Age		
15-16	19	26.0%
17-18	51	69.9%
19-20	3	4.1%
Total	73	100.0%
Educational Status		
Grade 5-8	16	21.9%
Grade 9-12	56	76.7%
Diploma	1	1.4%
Total	73	100.0%

In the general character of the athletes 39(53.4%) of the total athletes were males. Whereas 34(46.6%) of them also females.

From this the majority of the research participants are male athletes of the Ethiopian Youth Sport Academy.

From the above table of the 19(26%) of the total athletes were at the age of 15-16 years old. 51(69.9%) of them also at the age of 17-18 years old. 3(4.1%) of the total athletes were at the age of 19-20.

So, from this the majority of the participants of the short distance athletes are at the age of 17-18 years old.

The educational level of the respondents of the above table 16(21%9) of the athletes were grade 6-8. 56(76.7%) of them also grade 9-12. And the rest 1(1.4%) of the total athletes was at the diploma level.

Therefore, majority of the short distance athletes of the research participants were grade 9-12.

4.2. The respondents responded the research questions

Table 2. The respondents respond on the availability of materials

Items 1	Frequency			Percent
Is there any material which is used for training?	Valid	yes	50	68.5%
		No	23	31.5%
	Total		73	100%

Table 2. Item number one shows that 50 (65.5%) of the respondents said yes there was materials which used for the training of short distance athletes and 23 (31.5%) of the respondents said that there were no training materials which was used for short distance athletes of the academy. So, the respondents those 50 (65.5%) of the male and female respondents put that there were materials which used for the training of short distance athletes.

From the respondents response there were training materials and even from the researcher has observed; materials like hurdle were small in number and some of them were broken down and tied rubber and tread. So generally there were materials which used for training of the short distance athletes of the academy in both campuses.

Table 3. Respondents responded on gymnasium training program.

Item 2	Frequency			Percent
Is there any gymnasium training program?	Valid	yes	72	98.6%
		No	1	1.4%
	Total		73	100%
Item 3	Valid	Very good	36	49.3%
If your answer for the Above question number one is 'yes', how do you describe the quality of materials in the gymnasium?		Good	21	28.8%
		Satisfactory	15	20.5%
		Low	1	1.4%
	Total		73	100%

Table 3. Of item number two 72 (98.6%) of male and female respondents respond that as there was gymnasium training program. And 1 (1.4%) respondents said that there was no gymnasium training program.

So, from this male and female short distance athletes of the academy have gymnasium training program. Even from the observation of the researcher, the short distance athletes of the academy have the gymnasium training program.

Table 3. As indicated in the table three item number three 36 (49.3%) shows as short distance athletes of the academy describe the quality of gymnasium material was very good. From the total number of 73 respondents 21(28.8%) of them respond the quality of gymnasium material was good. 15 (20.5%) of the respondents put it as the quality of gymnasium material was satisfactory. And 1 (1.4%) of male and female respondents said that the quality of gymnasium material was low.

Therefore from the above response of the respondents and from the researcher's observation the quality of gymnasium material was very good.

So, based on the above presentation the quality gymnasium materials help to do for effective and measurable power exercises.

Table 4. Respondents respond about the training area.

Items 4	Frequency			Percent
Is there enough training area for all exercise of short distance athletes?	Valid	yes	63	86.3%
		No	9	12.3%
		Missed	1	1.4%
	Total		73	100%
Item 5	Valid	Very good	22	30.1%
If your answer for question number one is 'yes' how do you describe the quality of the area?		Good	30	41.1%
		Low	14	19.2%
		Very Low	7	9.6%
	Total		73	100%

Table 4. Item number four of the respondents respond on the availability of training area for all exercise of short distance athletes. From the total participants of the respondents 63 (86.3%) of them were said that yes there was enough training area for all exercise in the short distance athletes. Some athletes 9 (12.3%) of respondents indicate that there was no enough training area for all exercises of short distance athletes. And only 1 (1.4%) respondent missed from answering neither nor describing the amount of training area of short distance athletes.

Then, from the response of the participants there were different training areas but from the interview of the coaches and from the observation of the researcher there was lack of standard sand truck areas in the academy that used for short distance athletes.

Short distance athletics needs different training areas based on the principles of training that is principles of variety in different areas in truck, grass land, hill up and down helps athletes to be relaxed and to be motivated. So according to this principle if the short distance athletes did not get variety of training area they would boride and also their performance could never improved.

Table 4. In the above table number six from the total number 73 (100%) of male and female respondents 22 (30.1%) described as it was very good training area. Others 30 (41.1%) of the respondents said the quality of training area was good. And 14 (19.2%) male and female

respondents put it as the training quality was low. Some athletes 7 (9.6%) also describes as the quality of the training area was very low.

Therefore from the response of the athletes and from the researcher's observation the quality of the training area of the academy was good.

Table 5. Respondents respond about the punctuality at the training area.

Items 6	Frequency			Percent
Do you get on time at the training area?	Valid	always	45	61.6%
		Most of the time	26	35.6%
		Some times	2	2.7%
	Total		73	100%
Item 7	Valid	always	59	80.8%
The punctuality of your coach to arrive at the training area:		Most of the time	13	17.8%
		Some times	1	1.4%
	Total		73	100%

Table 5. In the item number six from the total number of 73(100%) male and female respondents 45 (61.6%) athletes identify as they always get on time at the training area. On the other side 26 (35.6) of the respondents described that, most of the time get on time at the training area. And 2 (2.7%) of the respondents responded that sometimes they get on time at the training area. The researcher also observed on his observation time some male and female short distance athletes did not get on time at the training place.

From the above analysis even if 45 (61.6%) of the respondents indicated as they always get on time at the training area and, from their responds, and the observation of the researcher also there were some other athletes they do not get always on time at the training place.

Therefore athletics coaching in general needs high punctuality of coaches and athletes because if no punctuality, the late comers athletes could not worm up their body properly, and if the

worming is not held properly they faces with injury. So their punctuality helps them to improve their performance.

Table 5. Item number seven there are 73(100%) male and female respondents of short distance athletes of the academy 59 (80.8%) respond that the coach always arrive on time at the training area. In the same question on the above table13 (17.8%) of the respondents describe most of the time the coach arrives at the training area on time. And 1 (1.4%) of the male and female respondents put as the coach arrive some times on time.

Therefore from the 73 (100%) of male and female respondents 59 (80.8%) respond as the coach was always punctual. So the Ethiopian youth sport academy athletes respond that the coach was always punctual.

From the beginning athletics was measured in time. In addition to this the punctuality of the coach is the basic thing that to manage athletes on time and to start training on time. So this helps the athletes to do proper warming up and also helps for the prevention of injury by doing effective warming up. So, as it was discussed here the punctuality of the coach shows as one system of scientific training.

Table 6. Respondents respond about the follow up and evaluation of the coach during training

Items 8	Frequency			Percent
Does your coach follow up you while you are doing training?	Valid	always	16	21.9%
		Most of the time	4	5.5%
		Some times	53	72.6%
		No	-	-
	Total		73	100%
Item 9 Does your coach motivate you?	Valid	always	51	69.9%
		Some times	20	27.4%
		No	2	2.7%
	Total		73	100%
Item 10	Valid	Yes	70	95.9%
Does your coach evaluate your performance?		No	3	4.1%
	Total		73	100%

Table 6. According to the item number eight, from the total number 73 (100%) of male and female 16 (21.9%) of the respondents describe as the coach always follow up while they were doing training. On the same item 4 (5.5%) of the respondents said that as the coach follow up most of the time at the training time. Whereas 53(72.6%) respondents put that sometimes the coach follow up while doing the training. From the respondents no one respond that as there was no follow up of the coach during training time.

Based on the respondents the short distance coaches sometimes follow up their athletes in different ways and the researchers observation short distance coaches of the academy did not follow up their athletes at the training time effectively.

A coach of the academy follows up their athletes in different ways for example at the training time, while they are eating their food, at rest time and at school. This helps the athletes to be wise and discipline and also to succeed the main objective /goal/ that was set to succeed in the short term or long term plan.

Therefore there was problem of following up of athletes and this hinders the scientific training of academy athletes.

Table 6. In the above table item number nine 51(69.9%) of male and female respondents were always motivated by their coach. As the athletes put it clearly in table 8 item number 9, 20 (27.4%) of them were sometimes motivated by their coach. More ever, 2 (2.7%) of the athletes responded as their coach does not motivate them.

This shows that most of the respondents reacted as their coach motivates them. More ever, the researcher has observed that the athletes were well-motivated by their coach.

Therefore, as short distance running needs more motivation by its nature, the coach has to strengthen his motivation for the short distance athletes even more.

Table 6. As indicated in the above table item ten, out of the 73 respondents 70 (95.9%) of male and female athletes responded that as their coach evaluates their performance. Whereas 3 (4.1%) of them said as the coach does not evaluate them.

The researcher also gathered additional information by interviewing of coaches and observed several times at the training and competition time as the coach evaluates the athletes performance.

Therefore this indicates that the coach evaluated the short distance athlete performance at the training time, test time and competition time. Continuous assessment and evaluation of athletes by training, test, and, competition time is one of the scientific training method

So, this proper follow up of the athletes increases their good ethical consideration and shows progressive improvement of their performance.

Table 7. Respondents respond on full recovery

Items 11	Frequency			Percent
1. Do you fully recover before the next day training program?	Valid	yes	61	83.6%
		No	12	16.4%
	Total		73	100%

Table 7. From the above table 61 (83.6%) of the total male and female respondents indicated as they fully recover before the next day training program. From the total male and female respondents 12 (16.4%) of them answered as they did not fully recover before the next day training program.

In addition to this the researcher observed some athletes of short distance were running to school after training and those athletes describe in the questionnaire as they did not get full rest because of they always hurry from training to school and from school to training. A good night's sleep is important to enhancing performance Willis, (2009).

So, in this item most of the short distance athletes have full recovery time before the next day program. But some athletes did not recover fully before the next day program because of the regular education every day after the morning training. Then, if it so, the short distance athletes those did not have full recovery time could not improve their performance because of the lack of full recovery time.

Table 8. Respondents respond about warm up and cooling down

Items 12	Frequency			Percent
Do you warm up your body before starting the main training program?	Valid	yes	71	97.3%
		No	1	1.4%
	Missed		1	1.4%
	Total		73	100%
Item 13	Valid	always	59	80.8%
Do you perform cooling down exercise after training?		Most of the time	12	16.4%
		Some times	2	2.7%
		No never	-	-
	Total		73	100%

Table 8. In the item twelve of this table 71 (97.3%) of male and female respondents put it as they did warming up before starting the main training program and there only1 (1.4%) athlete respond as there was no warming up before the main training program. There was only one athlete also missed the item number one.

All of the respondents agreed as they did warming up before starting the main training program except one respondent said no and one respondent also missed the item. Then the Ethiopian youth sport academy short distance athletes did worming up exercise before the main training program was started.

So in general according to the principles of training warming up exercise was very important because it makes the body ready for the main training program and if warming up was done properly it facilitates blood circulation and helps to prevent injury. Thomson (2000), Introduction to coaching in athletics

Table 8. In the above table item thirteen 59 (80.8%) of the total male and female respondents respond as they always performed cooling down exercise after training, 12 (16.4%) respondents also respond that they perform cooling down most of the time, 2 (2.7%) athletes also put it as they cool down some times and no one responded that for the alternative no never cool down.

These shows the short distance athletes properly cool down and even in the observation of the researcher the athletes were cooling down properly except some athletes those they were going to their school every morning after training.

The same is true table 10 item number twelve this also follows the principle of training that is the principles of cooling down exercise. It is very necessary because it returns body temperature to normal. Facilitates cooling down, helps to prevention of injury and for fast recovery, Thomson (2000).

Therefore, generally the athletes those cool down properly would not face to injury, can ready for the next day training program and they shows progressive improvement in their performance.

Table 9. Respondents respond about nutrition

Items 14	Frequency			Percent
Do you have any kind of food that you don't eat in the Academy's menu?	Valid	yes	39	53.4%
		No	34	46.6%
	Total		73	100%
Item 15	Valid	Strongly agree	29	39.5%
Have you ever been sick by food and water contamination in the Academy?		Agree	9	12.3%
		Neutral	8	11%
		Disagree	15	20.5%
		Strongly disagree	12	16.4%
	Total		73	100%

Table 9. In the item number fourteen 39 (53.4%) respondents responded as they have a kind food that they did not eat. Whereas 34 (46.6%) athletes also responded as they eat all kind the academy food.

In addition to this the respondents write down the reason why they did not eat is because of lack of good preparation of the food, problem of health and because of the life style that they did not adapt to eat the food before they enter the academy. The researcher also observed while athletes were not eating some kinds of food.

Generally from this the researcher understood that athletes or above half of them did not eat all kinds of food. This also clearly indicates that the athletes do compensate the calories what they lost in the training. So the scientific training is failed by this one.

Table 9. From item number 15, 29 (39.5%) respondents respond as they strongly agreed as they have ever been sick by food and water contamination in the Academy. In the same table of item number 15 9(12.3%) of the respondents agreed that as they have ever been sick by food and water contamination in the Academy. 8 (11%) of the respondents respond as they were neutral with the question they have ever been sick by food and water contamination in the Academy. 15 (20.5%) athletes disagreed with the question that they have ever been sick by food and water contamination in the Academy. And 12 (16.4%) respondents also strongly disagreed that means they have not been sick by food and water contamination in the Academy.

The athlete's performance improves progressively from time to time through different components of training. However if there is lack of hygiene either on athletes or on the side of cookers, food and water contamination which was the worst problem would appear. Then hygiene of an athlete is the most critical thing that relates with the improvement of performance of the athlete.

Therefore the short distance athlete of the academy declines their performance rather than improves by the case of food and water contamination.

Table 10. Respondents respond about injury and injury prevention

Items 16	Frequency			Percent
Have you ever been injured while you are doing training in the academy?	Valid	yes	54	74.0%
		No	19	26.0%
	Total		73	100%
Item 17	Valid	Strongly agree	29	39.7%
Does your coach teach you how to prevent sport injuries?		Agree	12	16.4%
		Neutral	18	24.7%
		Disagree	4	5.5%
		Strongly disagree	10	13.7%
	Total		73	100%

Table 10. In the item 16 of the above table 54(74.0%) of the total male and female respondents respond as they have ever been injured while they were doing training in the academy. Whereas 19(26.0%) of athletes respond that they did not have been injured while they were doing training in the academy.

According to this data 74% of the athletes were injured while they were doing training. The literature said injury may also follow a sudden increase in training distance or speed (training too much, too fast, too soon, too frequently; Van Mechelen (1992); Brill and Macera (1995); Almeida et al. 1999) or may occur when undertaking too many races or long runs. The researcher also observed some athletes were injured and out of training and no one physiotherapist who can treat them at the injury time.

So if athletes become injured in training they can also enter to sever injury problem rather than improving their performance.

Table 10. In the above table of item 17, 29(39.7%) of athletes strongly agreed as the coach educated how to prevent sport injuries, 12(16.4%) of the total respondents agreed the coach thought the athlete how to prevent injury, 18(24.7%) of the total athletes also become neutral, 4(5.5%) of athletes respond as they disagreed with the education of the coach how to prevent injury. And 10(13.7%) male and female of the total respondents strongly disagreed.

According to the above data the athletes respond that as the coach thought them how to prevent sport injury.

Teaching of athletes how to prevent injury is one of the best mechanisms of injury prevention method and it helps for the performance improvement.

Generally for the complete prevention of injuries coaches that they follow teaching for athletes helps to the training is scientific.

Table 11. Respondents respond about the regular training

Items 18	Frequency			Percent
1. Do you have flexibility exercise training as a regular program?	Valid	Strongly agree	29	39.7%
		Agree	26	35.6%
		Neutral	12	16.4%
		Disagree	5	6.8%
		Strongly disagree	1	1.4%
	Total		73	100%
19 Do you do speed work as a regular training?	Valid	Strongly agree	45	61.6%
		Agree	20	27.4%
		Neutral	4	5.5%
		Disagree	4	5.5%
		Strongly disagree	-	-
	Total		73	100%
20 Do you do speed endurance as a regular training?	Valid	Strongly agree	43	58.9%
		Agree	17	23.3%
		Neutral	10	13.7%
		Disagree	1	1.4%
		Strongly disagree	2	2.7%
	Total		73	100%

Table 11. In the above table item 18, 29(39.7%) of the total male and female respondents strongly agreed as they did have flexibility exercise training as a regular program, 26(35.6%) of respondents also agreed as they did have flexibility exercise training as a regular program, 12(16.4%) respondents are neutral, 5(6.8%) also respond as they disagreed, and only 1(1.4%) athlete strongly disagreed.

Almost above 75% of the respondents agreed and strongly agreed about as there was regular flexibility exercise training program.

Flexibility exercise training program is very important for short distance athletes because it prevents injuries and important for technical work like stride length and hurdle clearance activities. Thomson (2000) Introduction to coaching in athletics.

So, if the short distance coaches of the academy gives focus on the flexibility exercise training, it helps to prevent injury and improves running mechanics.

Table 13. From the item number 19 out of the 73(100%) athletes 45(61.6%) strongly agreed with the presence of speed work as a regular training, 20(27.4%) athletes of male and female respondents agreed as there was a speed work regularly, 4(5.5%) respondents answered as they are neutral and 4(5.5%) of the respondents also disagreed for the speed work as a regular training and no one was agreed with the strongly disagree of a speed work regular training.

The above item number 19 athletes response, they did speed work as a regular training. In order to develop the athletes speed, if the training or the exercise organized in such way the athlete performance improves from time to time.

In this item athletes have done speed work as a regular training, literatures also support of the speed work for the speed development, separate components of sprinting speed development: sprinting ("full-speed," full recovery), relaxation, and power production. Sprinting, or absolute speed, can be trained through repetitions of short distances (30-60m), done at or near full speed, in a relaxed manner. Bernie Dare & Beverly Kearney Spring (1988)

Therefore different speed work with relaxation and power production is one of the scientific training method of short distance athletes and improves their performance.

Table 11. According to the above table item 20 from 73(100%) of male and female respondents 43(58.9%) of them strongly agreed as they performed speed endurance as a regular training, 17(23.3%) of the total respondents agreed that they did speed endurance as a regular training, 10(13.7%) of athletes are neutral about what the speed endurance given as a regular training, 1(1.4%)of the whole short distance athletes disagreed with what the athletes did speed endurance as a regular training, and 2(2.7%) of the total short distance athletes responded as strongly disagreed with what the athletes did speed endurance as a regular training.

In this interpretation the above item 20 the short distance athletes did speed endurance as a regular training.

Speed endurance training in short distance athletics plays a great role that helps in order to finish the competition by resisting tired. As with peak-speed development, training for this component usually conducted with repetitions in excess of the race distance at near maximal speed with 90–95 percent of maximal effort. Bernie Dare & Beverly Kearney Spring (1988).

Therefore in addition the above review literature explanation if the athletes train speed endurance regularly their performance can show an improvement. And the training can said a scientific training.

Table 12. Respondents respond about training load

Items 21	Frequency			Percent
Have you ever been over trained?	Valid	Strongly agree	20	27.2%
		Agree	22	30.1%
		Neutral	16	21.9%
		Disagree	10	13.7%
		Strongly disagree	5	6.8%
	Total		73	100%
Item 22	Valid	Strongly agree	18	24.7%
Have you ever been faced with the training too light?		Agree	11	15.1%
		Neutral	35	47.9%
		Disagree	5	6.8%
		Strongly disagree	4	5.5%
	Total		73	100%

Table 12. In the item 21 of this table from the total 73(100%) of respondents 20 (27.2%) of male and female respondents strongly agreed with the question that ‘Have you ever been over trained’. 22(30.1%) of the respondents agreed that ‘Have you ever been over trained’. 16(21.9%) of athletes respond neutral. 10(13.7%) of the respondents disagreed for the over trained in short distance athletes. And 5(6.8%) of the respondents strongly disagreed for the item have you ever been over trained.

Therefore according to the literature overtraining is short term or long term a coach must be able to recognize the signs and symptoms of fatigue and reduce training levels before injury or illness occurs Uebernoth.V, Frantz.De.L, John Bryson.et. al (1984) Olympic games.
From this the short distance athletes of the academy respond as they faced over trained. The researcher also observed that some athletes become over trained because the volume of training was equal for fresh and experienced athletes per session.

So, if the training arranged with the principle of training the short distance athletes could not over trained and they cannot improve their performance.

Table 12. As indicated in the above table item number 22 from the total respondents 18(24.7%) of them respond strongly agreed as they have ever been faced with the training too light. 11(15.1%) of the total respondents agreed as they have ever been faced with the training too light. 35(47.9%) of the respondents put it as neutral for that of the training was too light. 5(6.8%) athletes also respond that they have disagreed with the training was too light. And 4(5.5%) of the total respondents strongly disagreed with that of they have ever been faced with the training too light.

When we compare with the first item of this table, in the first item it was generalized that the short distance athletes have ever been over trained. And in this item also most of the respondents strongly disagreed with the training too light.

Generally this indicates that except some exceptions of the academy athletes all athletes did not faced with the training too light that means always they became over trained. So, the training was not scientific and leads them to injuries.

Table 13. Respondents respond performing training related with age and training age

Item 23	Frequency			Percent
1. Do you perform training according to your age?	Valid	Strongly agree	23	31.5%
		Agree	15	20.5%
		Neutral	17	23.3%
		Disagree	11	15.1%
		Strongly disagree	7	9.6%
	Total		73	100%
Item 24	Valid	Strongly agree	18	24.7%
Do you perform training according to your training age?		Agree	20	27.4%
		Neutral	16	21.9%
		Disagree	10	13.7%
		Strongly disagree	9	12.3%
	Total		73	100%

Table 13. Based on the above table item 23 from the whole 73(100%) of short distance athletes 23(31.5%) of them Strongly agreed as they perform training according to their age, 15(20.5%) from the total respondents agreed as they perform training according to their age, 17(23.3%) of male and female respondents are neutral weather they perform the training according to their age or not, 11(15.1%) from the total respondents disagreed as they perform training according to their age, And 7(9.6%) of athletes strongly disagreed as they perform the training according to their age.

From the above data item number 23 the athletes responded that the training was given according to their age. The researcher also observed in his observation time, most of the time by the principles of individualization athletes should identified or grouped to do training according to their age level. (Thomson 2000, Introduction to coaching in athletics)

Therefore performing training according to their age is very important the general body development and performance improvement.

Table 13. According to the above table item 24 18(24.7%) of the athletes answered by strongly agreed as they perform training according to their training age, 20(27.4%) of the athletes agreed that they do training according to their training age, 16(21.9%) of the respondents are neutral about the trainings based on the training age, 10(13.7%) of the respondents disagreed with the athletes perform the training according to their age, And 9(12.3%) from the total respondents strongly disagreed with that of the training and the training age of the athlete.

According to this data table of item 24, it has similar response with item 23 of the same tables. So this shows that the training of short distance athletes of the academy was performed according to the training age of the athletes.

Therefore if the short distance coaches of the academy strengthen the principles of training what they were following the principles of training that was principles of individual difference.

Then the athletes performance can show continuous improvement if it goes based on the training age.

Table 14. It is about drinking water before, during and after training

Item 25	Frequency			Percent
Do you drink water before you start training?	Valid	Strongly agree	25	34.2%
		Agree	14	19.2%
		Neutral	18	24.7%
		Disagree	7	9.6%
		Strongly agree	9	12.3%
	Total		73	100%
Item 26	Valid	Strongly agree	50	68.5%
Do you drink water during training?		Agree	7	9.6%
		Neutral	10	13.7%
		Disagree	2	2.7%
		Strongly agree	4	5.5%
	Total		73	100%
Item 27	Valid	Strongly agree	45	61.6%
Do you drink water after training?		Agree	14	19.2%
		Neutral	8	11.0%
		Disagree	6	8.2%
		Strongly agree	-	-
	Total		73	100%

Table 14. In this table item number 25, 24(34.2%) of the athletes respond Strongly agreed as the respondents they drunk water before the start of the training, 14(19.2%) of the respondents agreed as they drunk water before the start of the training, 18(24.7%) of athletes also neutral about drinking water before training, 7(9.6%) of the respondents disagreed with that of they drink water before the start of the training, And 9(12.3%) of from the total athletes strongly disagreed with that of they drink water before the start of the training.

Athletes drink water during training. According to some literatures that is Introduction to coaching in athletics Thamson (2000), drinking water before training is very important. Sawka

M., et al., (2007). Hydrating during exercise is critical to the athlete because water stimulates the body to be ready for the main training program, it prevents injury and avoids dehydration.

So, for the improvement of performance and to keep all rounded health of athletes' drinking water is very necessary. Generally the training was scientific.

Table 14. As indicated in the above table item number 26, 50(68.5%) of the athletes strongly agreed as they drunk water during training, 7(9.6%) of the athletes agreed that they drunk water during training, 10(13.7%)of male and female respondents response neutral, In the above table of the first item 2(2.7%) athletes disagreed with that of drinking water during training, and 4(5.5%) of the short distance athletes strongly disagreed that they drinks water during training.

From this the short distance athletes of the academy drinks water during the training time.

Generally drinking water during the training time helps to prevent athletes from injury, from dehydration and helps for fast recovery Sawka M., et al., (2007). The water that is lost through sweat needs to be replaced and this makes hydration critical to the athlete's performance and health.

Then drinking water in between the training time helps to improve the performance of short distance athletes.

Table 14. Based on the above table of item 27 from the 73(100%) of male and female respondents 45(61.6%) of them are strongly agreed as they drink water after training, from the total respondents 14(19.2%) of them agreed that they drunk water after training, 8(11.0%) of the athletes gave their response as neutral. Whereas 6(8.2%) of the short distance athletes are disagreed with that of drinking water after training. And no one strongly disagreed of drinking water with what after they have finish training.

As a whole, from the total 73(100%) of respondent athletes above 60% of them are strongly agreed and 19.2 athletes also response agreed that means short distance athletes of the academy drinks water after training in a good manner. Even in the observation of the researcher the habits of drinking water after training was good.

Drinking of water after training help athletes to keep their performance, Rodriguez N. DiMarco N., Langley S., (2009). Dehydration reduces both aerobic and anaerobic performance as well as cognitive performance. And this for cooling down, preventing injury, for recreation and relax the tired body. Thamson (2000), Introduction to coaching in athletics.

Therefore the short distance athletes of the academy drinks water after they have completed the training and this is one of the ways of scientific training.

Table 15. Respondents respond about sportswear

Item 28	Frequency			Percent
Do you get training and completion sport wears on time?	Valid	Strongly agree	3	4.1%
		Agree	3	4.1%
		Neutral	4	5.5%
		Disagree	22	30.1%
		Strongly disagree	41	56.2%
	Total		73	100%
Item 29	Valid	Strongly agree	5	6.8%
There is enough sport wears that you get in a year?		Agree	1	1.4%
		Neutral	7	9.6%
		Disagree	24	32.9%
		Strongly disagree	36	49.3%
	Total		73	100%
Item 30	Valid	Strongly agree	2	2.7%
The sport wear that you get is quality.		Agree	2	2.7%
		Neutral	8	10%
		Disagree	29	39.7%
		Strongly disagree	32	43.8%
	Total		73	100%

Table 15. In the above table of item 28 from the 73 (100%) of the respondents 3 (4.1%) strongly agreed as the training and competition sport wears get on time, 3(4.1%) of the total athletes were agreed, 4(5.5%) of the respondents respond as neutral about the on time availability of sport wear in training and competition. In the same table 22 (30.1%) of the respondents indicated as they were disagree and 41 (56.2%) of male and female respondents strongly disagreed about the on time availability of sport wear and in training and competition time.

The above table of item number 28 shows that short distance athletes didn't get the running shoes and sportswear on time. In addition to this the researcher observed that the short distance academy athletes didn't get any sport wear and shoes until March 2018.The availability of sport wear and the running shoes was the main thing to improve their performance and to prevent sport injuries.

Therefore the short distance athletics running needs sportswear on time. But there was lack of sportswear in the short distance athletes. So, these athletes did not get sportswear on time. Then the training could not be scientific and the athletes' face to sever injuries and then their performance declines rather than improving from time to time.

Table 15. In the same table item number 29, 5 (6.8%) of athletes strongly agreed as there was enough sport wears that was given in a year, 1(1.4%) of the respondents also agreed that the sport wear was enough, whereas 7(9.6%) athletes put their answer as neutral. 24 (32.9%) respondents from the total number of athletes disagreed for that of the sport wear is enough. From the total respondents 36 (49.3%) of them strongly disagreed for the enough amount of sport wear given in a year.

The respondents disagreed and strongly disagreed and the researcher also taken an observation as there was no enough sport wear that was given in a year. All short distance athletes get only single sportswear for training and competition.

Therefore the athletes get insufficient sportswear in a year. In addition to this the sportswear worn-out within months. As the researcher observed they also enter to sever injury rather than improving their performance.

Table 15. On the above table item number 30, 2(2.7%) of the total respondents strongly agreed the sport wear that as they have got quality. 2(2.7%) of athletes agreed that the sport wear was quality. From the respondents 8(10%) of the short distance athletes respond as neutral. 29 (39.7%) of male and female athletes disagreed with the quality of sportswear. From the total male and female respondents 32 (43.8%) of them strongly disagreed with the quality of sportswear of the academy.

So, standing from this the short distance athletes of Ethiopian youth sport academy athletes did not get quality sport wear. The researcher also cross checked in his observation as the sport's wear was not quality specially the shoes worn out within a month in training.

Then, if the athletes could not get sport wears on time, that cause for the athletes injured and the same is true the athletes of sport academy could not improve their performance. From this it is clear that there was no quality training materials in the academy.

4.3 The Response of Coaches from Interview

Item 1. Do you prepare annual plan? If so what type of plan do you prepared?

The academy coaches prepare plan with triple per iodization. Professional coaches should prepare periodized annual plan, seasonal, monthly weekly and daily which was based on the athletes performance in order of performance improvement of the athletes.

Based on the stages of athlete development, the short distance athletes age of the academy could not match with triple per iodization. Because, triple per iodization plan for 17 years old athletes is very difficult.

So, the short distance athletes of the academy training was not scientific and that is way could not improve their performance from time to time.

Item 2. Do you do pre test for athletes? If so, do you give the training based on the test result?

Athletes did pre tests before entering to the academy and the training was given based on the pre test result.

Therefore pretest result or event specific test is scientific for the training management and improvement of performance and if the coaches keep this training system athletes can improve their performance from time to time. So this is one of the scientific ways of training method that guides for the athletes' performance improvement.

Item 3. For the question do you have enough equipment for training?

The coaches respond that as there was no enough equipment for training. Due to the shortages of training materials we were limited to implement the scientific training. For example we have shortages' of starting blocks, hurdles and gymnasium materials.

According to the coaches responses there were so many deficiencies of equipments in the academy. If athletes do not practice with modern starting blocks it will be difficult to them to compete in international competitions. Gymnasium training for short distance athletes is among the vital training type put in the training plan. But due to lack of materials this type of training was not done properly as it expected. Generally lack of sufficient equipments in the academy influences athletes' performance.

Item 4. All the coaches respond for how do you measure whether your training system is scientific or not and what is your evidence? Was responding that as they measure their athletes by different tests, at the training time and at the competition time. Then, this is one of the methods of measuring athletes in order to follow up their performance.

Item 5. For this question that how do you prevent athlete's injury? Three coaches respond that by the controlling of training load and one coach also responds that by the principle of training and by educating the athletes. So, this indicates that the academy coaches control the training load but they did not teach the athletes to prevent injury.

Therefore from this that can be discussed for the prevention of athletes injury educating of athletes is one of the first and helps coach for easily understanding of athletes. And following the principle of training also the core and which should not forgotten in the training system.

4.4 The Response of Technical Directors from Interview

Item 1. The educational levels of the coaches are first degree and above and, they are competent on their event in coaching athletics.

Item 2.The technical director explains as the coaches have coaching manual. But both of the technical directors describe as the scientific training was not given because of the problem of luck of man power/coach/, luck of qualified materials, shortage of professional physiotherapist, and nutrition factors that they did not eat all kinds of food.

Item 3. What is the ratio of coaches in relation to short distance athletes?

The ratio of coaches in short distance athletes were unbalanced as the technical director's explanation that was more than 15 athletes for one coach. The researcher has crosschecked that the ratio of coaches for short distance athletes was difficult how to mention it. Therefore the coach and athlete ratio is mismatched it could be difficult to say the training was scientific.

Item 4. How do you describe the training facilities and materials? For this questions both the technical directors respond that as there was no standard sand truck, shortage of gymnasium materials and hurdle materials. From the observation of the researcher also the gymnasium materials, hurdles and sand trucks were not enough and standard.

Item 5. How many times the athletes get sport shoes and clothes per year? What does seem its quality? The technical directors of the short distance athletes of the academy describes that they get the sportswear is one time in a year, and according to the athletes day to day effort the sport wear and sport shoes are not enough. Based from this, the athletes' response from the questionnaire and the observation of the researcher the sportswear and sport shoes were not enough. This also affects the athletes' performance.

Item 6. Do the physiotherapists treat/manage/athletes to prevent injury?

One technical director said that as there was a big problem of physiotherapist in the academy. And the other technical director describes that as there was shortage of physiotherapist in the academy. Let alone the short distance athletes treat properly by the physiotherapists there was only one physiotherapist for the whole 531 athletes of the academy.

So the physiotherapist did not manage or treat the short distance athletes because of large in number and shortage of materials. Then the short distance athletes of the academy

Item 7. As a technical director do you struggle to reduce the athlete's major problem?

Both the technical directors of the sport academy describes as they tried their best to solve the basic problems of the academy. The shortage of facilities and materials of the academy hinders the direct and continuous improvement of the performance.

From the interview, technical director described as they struggle for all the above challenges and problems hinders the performance improvement of the athletes of the academy.

4.5 The Response of Physiotherapist from Interview

Item 1. For the question how many physiotherapists are there in the academy? The physiotherapist responds that as there was only one physiotherapist for the whole 531 athletes of the academy. Ethiopian youth sport academy short distance athletes do day to day training activity. So because their always speedy work they cannot resist the intensive speedy training.

Therefore such type of problems of the physiotherapist in the academy is difficult to produce athletes with good performance. So short distance athletes of the academy is impossible to improve their performance from time to time.

Item 2. The physiotherapist responds that as there were some physiotherapist equipments and the equipments are not enough to treat the athletes effectively. But even if the physiotherapist equipments were small in amount they were quality.

From the above response of the physiotherapists it is clear that there are two things that did not fulfilled. On the one side there was shortage of physiotherapist and on the other side also the amount of materials were small. Therefore the short distance athletes of Ethiopian youth sport academy training could not be scientific.

Item 3. What does seem the ratio of physiotherapist to the athletes? The physiotherapist responds that, this could not be mentioned by ratio there is no any other physiotherapist out of me.
Every type of sport needs its own physiotherapist because every day different injuries were faced and every day the clinic was crowded by different injuries. So, if the injured athletes could not treat on time they could enter to sever problem and it would be impossible to improve their performance in this case.
Item 4. How the athlete should come back to training after injury cured?

The physiotherapist responds that the athlete came back to training after the injury completely cured from the injury and completed the medicine.

But this is not only enough the athletes to return to training and also have to check the athlete was free from pain, free from fear and full of flexibility and stretching.

4.6 The Observation of the Researcher in the Short Distance Athletes

The researcher used different ways of data gathering mechanism from those one was by taking an observation of all the environments and activities. The coach prepared a plan and follows the principle of training. Therefore coaches could not manage the athletes properly at the training time because of large number of athletes for one coach that was difficult to manage. This shows that as there were no enough professional coaches that control all activities of athletes.

The coaches used training load monitoring system by using stopwatch and planning before the training that controls all the activities of the athletes and their recovery times. But the training load monitoring system was not effective in all rounded for example there was no measuring of heart beat in between the training.

All most all coaches and athletes are punctual on the training area. The Athletes have not enough sport wears, there was no quality sportswear and the sportswear did not come on time. As water is one of the important thing that help athletes for blood circulation, for fast recovery, facilitates cooling down and prevents injury. The academy athletes have seen while they were drinking water before, during and after training.

The training facility was good that was the running truck and the grassland training areas. But there were shortage of standard sand truck. Even if the gymnasium materials are enough for all of them but all of the materials were not totally quality.

Most of the short distance athletes have full recovery time before the next day program. But some athletes did not recover fully before the next day program because of the regular education every day after the morning training. Then, if it so, the short distance athletes those did not have full recovery time could not improve their performance because of the lack of full recovery time.

The athletes' nutrition was good in amount but the food that prepared for athletes was not quality. Even the athletes respond in the questionnaires was what the food prepared faced us for water and food contamination.

The physiotherapist has not enough material but the materials were quality. There was a big problem let alone for short distance athletes there was only one physiotherapist for the whole 531 athletes of the Ethiopian youth sport academy.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter deals with the summary, research findings, conclusion and recommendation of the study on that of the major factors that affect performance of short distance athletes of the academy.

5.1. Summary

As stated in the topic, the main aim of this study was to find out the major factors affecting the performance of short distance athletes of the Ethiopian youth sport academy in the case of Addis Ababa and Asela campus. In order of succeed the objective, the following questions were raised in detail.

1. Is there enough number of professional coaches on both campuses?
2. Do the athletes get training in a scientific manner?
3. Is there enough standard training facilities and materials?
4. How the physiotherapists manage/treat/sport injuries properly?

Then in order to succeed the above research questions, the qualitative and quantitative of descriptive survey research method was used. Through the instrument of questionnaire, interview and observation check list the necessary data of the study was gathered. Totally 80 participants were participated in the study. This study focused on 34 females 39 male athletes, 4 coaches, two technical directors and one physiotherapist for the successful completion of the study.

Therefore in the analysis of the data the researcher used both qualitative and quantitative methods based on the data gathered. The research study contains the following major findings.

- The short distance athletes of Ethiopian youth sport academy have training materials which they used for training.
- The academy athletes have gymnasium training program, as the researcher observed and that he has gathered additional information from the interview of the coaches that the gymnasium was sufficient.

- The training area was quality but there was shortage of standard sand truck for training. Then, the training area of short distance athletes was not enough.
- The Ethiopian youth sport academy of short distance coaches and athletes get on time at the training area.
- There were no effective follow up of the coaches for their athletes.
- The coaches evaluate their athletes and register the performance of their athletes in the training, event test and competition time.
- Most of the short distance athletes have recovered fully before the next training program. But some athletes did not fully recover before the next training program because of the regular education every day after the morning training.
- The short distance athletes of the academy did warming up exercise before starting the main training and did cool down exercise after the main training program.
- The athletes of the academy do not eat all kinds of food.
- According to the research finding the athletes faced by food and water contamination.
- Based on the research finding most athletes were injured while they were doing training. The researcher also observed some athletes were injured and stay out of training and as there was no rehabilitation area.
- Coaches of the short distance athletes teach them about the prevention of injury.
- The research finding shows that as there was, flexibility exercise, speed work and speed endurance training program for the athletes.
- Short distance athletes of the academy in both campuses have ever been over trained.
- The research finding indicates that the athletes training was given according to their age and training age. The research finding about drinking of water before, during and after training show most of the athletes drink water before, during and after training and the researcher observed some athletes did not drink water before training.
- From the research finding the athletes did not get enough and quality sport wears on time until March 2018. The researcher observed that the shoes worn out within a month in training.

5.2. CONCLUSION

According to the data interpreted, the researcher analyzed and the following necessary points were concluded.

The short distance athletics coaches of the academy have loaded with more than enough number of athletes. Coaches did not follow up their athletes but it became challenge to manage, control and to register all the activities of the athletes. Therefore, if the athletes did not managed and registered all their activities, so the number of professional coaches of the academy was not enough.

There was shortage of standard sand truck for the training short distance athletes of the academy. And the training materials like hurdle were broken down. If the athletes did not get different training areas like truck and out of truck like grass lands, hill up and downs, sand trucks and also, if the materials are not quality thus are not in standard way the athletes could not do the training effectively.

The coaches of the short distance athletes of the academy arrives on time at the training area, let their athletes warm their body properly, motivates their athlete, and evaluated their athletes performance at the training, test and competition time. So this is one of the ways of evaluating the scientific training of the academy athletes. And if the coaches strengthen this way of adaptation it would help for the improvement of the athletes' performance.

Even if most of the short distance athletes have full recovery time before the next day training program, there are some athletes did not recover fully before the next day training program because of the regular education every day after the morning training. So if an athlete could not recover fully before the next day training program, they can not cover the training load effectively, they become over trained. And the training system of the short distance athletes were not scientific.

According to the research finding, the athletes were injured while they were doing training. If athletes are faced with injury they could not cover the regular training and then from time to time their performance declines.

Because of the regular education program some of the academy short distance athletes did not cool down properly that they were going to their school morning after training. But those they do not have regular education class were cool down properly.

Because of the lack of good preparation of the food, problem of health and because of the life style, athletes did not eat the food and also sick because of food and water contamination. If the athletes sick by food and water contamination, let alone improves their performance it would difficult for their performance.

The short distance athletes drink water before, during and after training and there were also some athletes did not drink before training. Drinking water facilitates the blood circulation, facilitates recovery time and cooling down and prevents dehydration.

The short distance athletes of Ethiopian youth sport academy did not get sport wear on time, the sportswear and the running shoes were not enough in amount and also not quality. This also one causes of sport injuries which leads them to decline their performance.

There was no physiotherapist who can treat the short distance athletes of the academy at the training area. As the researcher observed, interviewed for the technical director and physiotherapists of the academy, let alone the athletes could get physiotherapy treatment at the training area, even in the whole academy there was only one physiotherapist for the whole academy 531 athletes. Then, if there is no proper treatment of the physiotherapist, the athletes could delay to return to training after they have injury. Therefore, the physiotherapists did not manage /treat/ the short distance athletes to prevent injury.

5.3. Recommendations

According to the findings and conclusions of the study, the following recommendations were drown.

- The Ethiopian youth sport academy should employ enough professional coaches and physiotherapist for short distance event.
- The Ethiopian youth sport academy should give more emphasis in preparation of food to prevent food and water contamination.
- Coaches should have to advise for the athletes those they did not drink water in a good manner.
- The short distance coaches of the academy should follow the principles of training; specially on training load management.
- The sport academy should supply enough and appropriate sport wears on time at the beginning of the year while the athletes start training.
- To prevent injury of short distance athletes; coaches should give attention to control the training not to be too much, too fast, too soon, too frequent and many races.
- The academy should have rehabilitation center and program with enough professionals.
- The academy coaches should arrange training program with their school time in order to recover fully before the next training.

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Appendix A

Addis Ababa University School of post graduate program

Faculty of natural science

Department of sport science

Questionnaires to be filled by short distance academy athletes

Dear athletes:-

The objective of this questionnaire is to collect data on the factors that affect the performance of short distance academy athletes. The information will use only for the solution of problems and to complete the MSC. So your genuine participation in providing objective is very helpful for the successful competition of the study and addressing the problems under investigation.

Therefore I kindly request you to complete each item honestly.

I. General information

1. Name of your campus A.Ababa □ Asela □
2. Sex Male □ Female □
3. Age group 15-16 □, 17-18 □, 19-20 □
4. Your education level grade 5-8 □, 9-12 □, Diploma □

II. Please make circle the letter for your appropriate answer of the alternatives and explain for the blank space.

1. Is there any material which is used for training?

   A. Yes B. No

2. Is there gymnasium training program?

   A. Yes B. No

3. If your answer for question number two is 'yes', how do you describe the quality of materials in the gymnasium?

   A. Very good B. Good C. Satisfactory D. Low

4. Is there enough training area for all exercise of short distance athletes?

   A. Yes B. No

5. If your answer for question number four is 'yes' how do you describe the quality of the area?

   A. Very good B. Good C. Low D. Very low

6. Do you get on time at the training area?

   A. Always B. Most of the time C. some times

7. The punctuality of your coach to arrive at the training area:

   A. Always B. Most of the time C. some times

8. Does your coach follow up you while you are doing training?

   A. Always B. Most of the time C. some times D. No

9. Does your coach motivate you?

   A. Always B. some times C. There is no motivation

10. Does your coach evaluate your performance?

    A. Yes B. No

11. Do you fully recover before the next day training program?

A. Yes B. No

-If your answer is 'No', describe the reason why you do not recover fully?

_____

_____

_____

_____

12. Do you warm up your body before starting the main training program?

A. Yes B. No

13. Do you perform cooling down exercise after training?

A. Always B. Most of the time C. some times D. No

14. Do you have any kind of food that you don't eat in the Academy's menu?

A. Yes B. No

- If your answer is 'yes', describe why you don't eat?

_____

_____

_____

_____

15. Have you ever been injured while you are doing training in the academy?

A. Yes B. No

- If your answer is 'yes', how is the follow up of the physiotherapist/physicians/?

_____

_____

_____

_____

_____

||. For the following alternative that is strongly agree, agree, satisfactory, disagree and strongly disagree use the mark for which you select the answer.|

No	Different activities in the academy	Strongly agree	Agree	Satisfactory	Disagree	Strongly disagree
1	Do you have flexibility exercise training as a regular program?					
2	Do you do speed work as a regular training?					
3	Do you do speed endurance as a regular training?					
4	Have you ever been over trained?					
5	Have you ever been faced with the training too light?					
6	Do you perform training according to your age?					
7	Do you perform training according to your training age?					
8	Do you drink water before you start training?					
9	Do you drink water during training?					
10	Do you drink water after training?					
11	Have you ever been sick by food and water contamination in the Academy?					
12	Do you get training and completion sport wears on time?					
13	There is enough sport wears that you get in a year?					
14	The sport wear that you get is quality.					
15	Do your coaches educate you how to prevent sport injuries?					

THANK YOU

Appendix B

Interview for short distance athletics coaches

1. Do you prepare annual plan? If so what type of training plan do you prepare?
2. Do you do pre test for athletes? If so do you give the training based on the test result?
3. Do you have enough equipment for training?
4. How do you measure whether your training system is scientific or not? What is your evidence?
5. How do you prevent athlete's injury?

Appendix C

Interview for the technical directors of the academy

1. What are the educational levels of the coaches?
2. Do the coaches have training manual?
3. What is the ratio of coaches in relation to short distance athletes?
4. How do you describe the training facilities and materials?
5. How many times the athletes get sport shoes and clothes per year? What does seem its quality?
6. Do the physiotherapists threat/manage/athletes to prevent injury?
7. As a technical director do you struggle to reduce the athlete's major problem?

Appendix D

Interview for the physiotherapists of the academy

- How many physiotherapists are there in the academy?
- Do you have enough equipment to give physiotherapy? If yes, what about its quality?
- What does seem the ratio of physiotherapist to the athletes?
- When does the athlete should come back after injury cured?

Appendix E

Observation check list for coaches and athletes at the training time.

No	Activities	Yes/present	No/absent	Remark
1	Coach manages the athletes properly.			
2	Does the coach use training load monitoring system?			
2.1	Does the coach has a plan?			
2.2	Does the coach follow principle of training?			
2.3	Does the coach register the athletes training activity?			
2.4	Does the coach control the athletes recovery time?			
3	Athletes have enough and quality sport shoes and cloths.			
4	Athletes are always punctual.			
5	Athletes drink water before training.			
6	Athletes drink water during training.			
7	Athletes drink water after training.			
8	Does gymnasium materials are enough for all of them?			
9	Does gymnasium materials are quality?			
10	Do the athletes get enough nutrition?			
11	Do the athletes take rest properly?			
12	Do the physiotherapists have enough material?			
13	Do the physiotherapists threat them properly?			
14	The training facility is good.			

Appendix F

በአዲስ አበባ ድህረ ምረቃ ትምህርት ፕሮግራም ተፈጥሮ ሳይነስ ፋካሊቲ

የተፈትሮ ሳይነስ ዲፓርትመንት

ይህ መጠይቅ በኢትዮጵያ ወጣቶች ስፖርት አካዳሚ በአጭር ርቀት አትሌቶች የሚሞላ ነው።

የተከበራቹ ሰልጣኞች፡-

የዚህ መጠይቅ ዋና ዓላማ በኢትዮጵያ ወጣቶች ስፖርት አካዳሚ በአጭር ርቀት አትሌቶች ብቃት ላይ ተፅእኖ የሚያሳድሩ ችግሮች መረጃ /ዳታ/ ለመሰብሰብ ነው።

ይህ መረጃ ለችግሩ መፍትሄ ለማፈላለግ እና የማስተርስ ትምህርት ለመጨረስ ሚሚያ ጥናታዊ ፅሁፍ ነው።

ስለዚህ ይህ ጥናት ግቡን እንዲመታ የናንተ ተሳትፎ የጎላ አስተዋፅኦ አለው።

ሀ. አጠቃላይ መረጃ

1. የስልጠና ቦታ ስም አዲስ አበባ - □ አሰላ - □
2. ፆታ ወንድ - □ ሴት - □
3. ዕድሜ ከ15 — 16 □ ፣ ከ17 — 18 □ ፣ ከ19 — 20 □
4. የትም/ት ደረጃ ከ6 -8 □ ፣ ከ9 — 12 □ ፣ ዲፕሎማ □

I. ከቀረቡት አማራጮች ትክክለኛው መልስ የምትለው/ይው/ በማክበብ መልስ/ሺ/

ተጨማሪ ሀሳብ ካለ በተሰጠው ክፍት ቦታ ላይ ፃፍ/ፊ/።

1. ለልምምድ የሚያገለግል የስልጠና ቁሳቁስ አለ?

ሀ. አዎ ለ. የለም

2. በጂምናዚየም የምትሰሩበት ፕሮግራም አላቹ?

ሀ. አዎ ለ. የለም

3. የተራ ቁጥር ሁለት ጥያቄ መልስሽ/ህ/ አዎ ከሆነ በጂምናዚየም ያለው የልምምድ መሳርያ ቁሳቁስ ጥራቱ ምን ይመስላል?

ሀ. በጣም ጥሩ ለ. ጥሩ ሐ. መካከለኛ መ. አነስተኛ

4. የስልጠና ማእከሉ ለተለያየ ዓይነት የስልጠና ስራ የሚሆን ቦታ አለው?

ሀ. አዎ ለ. የለውም

5. የተራ ቁጥር አራት መልስህ/ሽ/ አዎ ከሆነ ቦታው አ ከዋናው ልምምድ በኋላ መቼነት እንዴት ትገልፀዋለህ/ጨዋለሽ/?

ሀ. በጣም ጥሩ ለ. ጥሩ ሐ. መካከለኛ መ. አነስተኛ

6. በልምምድ ቦታ በሰዓትህ/ሽ/ ትገኛለህ/ኝያለሽ/?

ሀ. ሁሉ ግዜ ለ. አብዛኛው ጊዜ ሐ. አልፎ አልፎ

7. አሰልጣኝህ/ሽ/ በልምምድ ቦታ በሰዓቱ ይገኛል?

ሀ. ሁሉ ግዜ ለ. አብዛኛው ጊዜ ሐ. አልፎ አልፎ

8. አሰልጣኝህ/ሽ/ በልምምድ ጊዜ ክትትልና ድጋፍ ያደርጋል?

ሀ. ሁሉ ግዜ ለ. አብዛኛው ጊዜ ሐ. አልፎ አልፎ መ. አያደርግም

9. አሰልጣኝህ/ሽ/ ያበረታትህል/ሻል/?

ሀ. ሁሉ ግዜ ለ. አልፎ አልፎ ሐ. አያበረታታም

10. አሰልጣኝህ/ሽ/ ብቃትህን/ሽን/ በየጊዜው ይመዝናል?

ሀ. አዎ ለ. አይመዝንም

11. ከቀጣይ የልምምድ ቀን በፊት ሙሉ እረፍት ታርፋለህ/ፍያለሽ/?

ሀ. አዎ ለ. አላርፍም

-መልስህ/ሽ/ አላርፍም ከሆነ ምክንያቱ ለምን እንደሆነ አብራራ/ሪ/?

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12. ዋናው የልምምድ ፕሮግራም ከመጀመሩ በፊት ሰውነትህ/ሽ/ ታማሙቃለህ/ቅያለሽ/?

ሀ. አዎ ለ. አላማሙቅም

13.ከስልጠና በኋላ ሰውነትህ/ሽ/ ታቀዘቅዛለህ/ጪለሽ/?

ሀ. ሁሉ ግዜ ለ. አብዛኛው ጊዜ ሐ. አልፎ አልፎ መ. በጭራሽ አላቀዘቅዝም

14. ከሚቀርብላቹ የምግብ ዝርዝር የማትመገበው/ቢው/ የምግብ አይነት አለ?

ሀ. አለ ለ. የለም

-መልስህ/ሽ/ አለ ከሆነ ምክንያቱ ለምን እንደሆነ ፃፍ/ፊ/?

_____

_____

_____

_____

15. በልምምድ ግዜ ጉዳት ዶርሶብህ/ሽ/ ያውቃል?

ሀ. አዎ ለ. አያውቅም

- መልስህ/ሽ/ አዎ ከሆነ የፊዝዮተራፒስት/የህክምና ባለሞያ/ ክትትል ምን የመስላል?

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ከቀረቡት አማራጮች ማለትም በጣም እስማማለሁ፣ እስማማለሁ፣ በአማካይ፣ አልስማማም እና ሙሉ በሙሉ አልስማማም ከሚለው ትክክለኛው መልስ የምትለው/ይው/ የ ምልክት በማድረግ መልስ/ሺ/

ተ.ቁ	የሚተገበሩ ዝርዝርነገሮች	በጣም እስማማለሁ	እስማማለሁ	በአማካይ	አልስማማም	ሙሉ በሙሉአልስማማም
1	የመሳሳብ ስራ/flexibility exercise/ በልምምዳቹ እንደ መደበኛ ፕሮግራም አለ፡፡					
2	የፍጥነት ስራ በመደበኛ ፕሮግራም ትሰራላቹ፡፡					
3	የፍጥነት ብርታት ልምምድ በመደበኛ ፕሮግራም ትሰራላቹ፡፡					
4	በስልጠና ጊዜ ልምምዱ ከአቅምህ/ሽ/ በላይ ሆኖ ያውቃል፡፡					
5	በስልጠና ጊዜ ልምምዱ በጣም ቀሎህ/ሽ/ ያውቃል፡፡					
6	ልምምድ ስትሰሩ ዕድሜያቹ መሰረት ያደረገ ነው፡፡					
7	ልምምድ ስትሰሩ የ ልምምድ ዕድሜያቹ /training age/መሰረት ያደረገ ነው፡፡					
8	ልምምድ ከመጀመርህ/ሽ/ በፊት ውሀ ትጠጣለህ/ጭያለሽ/፡፡					
9	በልምምድ መሀል ውሀ ትጠጣለህ/ጭያለሽ/፡፡					
10	ከልምምድ በኋላ ውሀ ትጠጣለህ/ጭያለሽ/፡፡					
11	በአካዳሚ ውስጥ በውሀና በምግብ ብክለት ታመህ/ሽ/ ታውቃለህ/ቅያለሽ/፡፡					
12	የልምምድና የመወዳደርያ ትጥቅ በወቅቱ ይሰጣችዋል፡፡					
13	በዓመት የሚሰጣቹ የስፖርት ትጥቅ በቂ ነው፡፡					
14	የሚሰጣቹ የስፖርት ትጥቅ ጥራት አለው፡፡					
15	አሰልጣኞች ስፖርታዊ ጉዳትን እንዴት መከላከል እንደሚቻል ያስተምራቹሀል፡፡					

አመሰግናለሁ