WOMEN'S FIELD EVENTS PRESENT STATUS AND FUTURE PROSPECTS; IN 3 SELECTED FIRST DIVISION ATHLETICS CLUBS

BY

ASHENAFI TSADIK

SEPTEMBER 2012

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

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SCHOOL OF GRADUATE STUDIES

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Abbreviations

A.A Addis Ababa

A.A.U Addis Ababa University

AT	Anaerobic Threshold
ATP	Adenosine triphosphate
IAAF	International association of athletics federation
EAF	Ethiopian Athletics Federation
IOC	International Olympic Committee
NSPE	National Sport Policy of Ethiopia
VO_2 max	Maximum volume of oxygen

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Abstract

The purpose of the study was to investigate the present status and predict future perspective of women's field events in three selected first division athletics clubs in A.A. the participants of Sthis study are 34 field events athletes and 12 field events coaches of Defense Athletics club, Ethiopian commercial bank Athletics club and Prison police Athletics club. These clubs are considered because of their accessibility for the research. The researcher used questionnaires and observation as data collection instruments. The questionnaire contains both close ended and open ended questions. Close ended questions are analyzed using percentage and open ended questions are analyzed using descriptive statements and also there is check list for observation. The analysis was classified by three 1) background information 2)

questions related to training 3) factors affecting field events. Accordingly the result of the study revealed that most of field events athletes in clubs are young but also it shows that some of them have to be replaced. All clubs do not allow their athletes in planning the training program. It was admitted by both athletes and coaches that most athletes don't take feedback from their coaches at the end of every training because one coach trains many athletes with different disciplines. Most athletes and coaches rank; lack of sufficient and balanced diet, lack of incentive, venture of the training, lack of qualified coaches, lack of well designed program and lack of adequate facilities as the most affecting factors.

Based on the findings and conclusions made the researcher suggest : clubs have to fulfill the basic facilities and equipment of and have to provide sufficient and balanced diet which helps for the development of Athletes' performance, clubs have to educate athletes that during menstruation period athletes can exercise except flexibility exercise, and also clubs have to have projects which feed the main athletes clubs by training starting form kids athletics stage to performance level.

Key words:

Athletics - The collection of sports including track and field, cross country running, and road racing. The name is derived from the Greek work "athlos," meaning "contest."

Muscle Power- Work done over a given period of time. Power is very important to those events in track and field that require explosive strength such as the long and high jumps.

Takeoff- The act of leaving the ground.

Declaration

I undersigned, declare that this is my original work and has not been presented for a degree in any university. All sources of the materials used for this thesis have been dully acknowledged.

Declared by

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Signature _____

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confirmed by

Name _____

signature

This thesis has been submitted for examination by my approval as a university adviser.

Name _____

Signature _____

Date of submission _____

the competitions: a stadium which features an oval running track surrounding a grassy area. The throwing and jumping events generally take place within the central enclosed area.

Track and field is one of the sports which makes up the umbrella sport of athletics. It is under the banner of athletics that the two most prestigious international track and field competitions are held: the athletics competition at the Olympic Games and the IAAF World Championships in Athletics. The International Association of Athletics Federations is the international governing body for track and field.

Field events are generally individual sports with athletes challenging each other to decide a single victor. the jumping and throwing events are won by the athlete who has achieved the greatest distance or height in the contest. Regular jumping events include long jump, triple jump, high jump and pole vault, while the most common throwing events are shot put, javelin, discus and hammer.

The limited role of the community in sports, the decline of sports in schools, the shortage of sports facilities, as well as the lack of trained personnel in the sphere have also made the problem more complex (National sport policy, 2005).

The increase in public expectation from sport sectors crates changes in the sport policy, what and how sport training could be delivered. In order to keep with this changes, clubs in many sport activities have become the call of the study because their number is increasing from day to day. The national sport policy of Ethiopia (NSPE, 2004) puts,

" ... organize special training and completion forums for talent youth in various types of sports and recruit the gifted ones by working in conjunction with sports clubs and federations."

So Appropriate implementation can favorably influence the over all development of the countries sport in many aspects. To see the expected development sharkey (1986) said that:

" talent identification, proper recruitment procedure, researches, scientific training, setting with in reach goals, competent and effective organizational structure, etc are preconditions"

1.2 Statement of the problem

Athletics is one of the purest of all sorts, relaying solely on the strength of the human body rather than their technological implements to improve performance. Sophia Lal, DO, Anne Z. Hoch, DO (2007) stated that:

"Sport has been one of the most important socio cultural learning experiences for boys and men, and those same benefits were becoming available to girls and women especially in the last 35 years"

More over, the sport and games played in a country can tell us a lot about the country. Ethiopia has the best long distance runners in the world. Ethiopia took 5th place in the world ranking during the Olympic champion at Beijing (International Olympic committee, 2010). Jundah (2008) also stated that:

" Since Ethiopia joined the Olympic Game in 1956 until Bejing Olympic, they collected a total of 14 gold medals, 5 silver medals and 123 bronze medals. Almost all of the medals collected in long distance running."

Accordingly, the recent Ethiopian sport commission has the mission in General to work on all athletics disciplines in particular focusing on the events which the country has not been well known, that is sprinting, Jumping and throwing events to represent Ethiopia in International competitions. Now a days some developing countries have started showing good results in more technical events like Jumping and throwing.

The researcher is motivated and interested to conduct this research for the flowing reason; comparing with long distance run our country has to bring a change in sprinting, Jumping and throwing, especially on field events Ethiopia has no result for several years. So the researcher argues that Ethiopian Field events athletes would repeat what has been achieved by long distance athletes if there is scientific training, organized clubs …

1.3 Research Questions

This study attempts to answer the following leading research question;

1. What are the major factors that affect women's field events athletes?

2. To what extent women's field events athletes are satisfied with the services provided by their clubs?

3. How are field events in Ethiopia practiced?

4. What will be the future of women's field events athletes?

1.4 Objectives of the study

1.4.1 General objective

The purpose of the study was to investigate the present status and predict future perspective of women's field events

1.4.2 Specific objective

The specific objective of this research was:

- To identify major factors which affects women's field events athlets.

- To asses how is field events practiced in our country
- To asses the development of field events in our country.

1.5 Significance of the study

The researcher hopes that the result of the study are important for the following major reasons .

- To give valuable feedback about the problem of field events for concerned bodies.
- To investigate the problems of field events.
- To explore factors affecting women's field events.
- To provide clue for future researchers in field events broadly.

1.6 Delimitation of the study

The study was delimited to women athletes and coaches of three selected first division Athletics clubs which are found in A.A, because of resource, time, money and other constraints. So the researcher will restrict himself to Defense Athletics Club, Ethiopian commercial Bank Athletics club and prison police Athletics club and also to make the study manageable, the study was designed to focus only on coaches and women athletes of the three selected clubs.

1.7 Limitation of the study

During under taking these study financial problems, time constants, unwillingness of respondents in filling the questions because of tiredness, shortage of reference materials and others affects the researcher. Hence, the researcher beliefs these problems contributed to the imitation of the study. In fact, attempts were made to overcome these limitations.

1.8 Definition of operational terms

Athletics - The collection of sports including track and field, cross country running, and road racing. The name is derived from the Greek work "athlos," meaning "contest."

Athletic Shape- How fit an athlete is for his chosen event.

Field- Participation area for field events.

Fosbury Flop - a technique used in the high jump where the jumper's goes head first over the bar with their back toward the bar when going over it.

Grip- The hand position of a throwing implement.

Intensity- The degree of stress placed on an organism.

Muscle Power- Work done over a given period of time. Power is very important to those events in track and field that require explosive strength such as the long and high jumps.

Muscle Strength- Greatest amount of force an athlete can exert at one time.

Recovery- The act of bringing an arm or leg back to the drive, push, or stride position.

Scissors Jump- A high-jump style in which the legs are moved in a scissors motion when crossing the bar.

Takeoff- The act of leaving the ground.

1.9 Organization of the study

This study was organized in 5 chapters. The first chapter presents and discusses. The background of the study, statement of the problem, objective of the study, limitation and delimitation of the study respectively and definition of operational words. The second chapter attempted to forward review of literatures. Chapter three covered the research design and methodology. The fourth chapter deals on the analysis and interpretation of athletes and coaches response and finally chapter five presents summary, conclusion and recommendation.

Chapter two

Review literatures

This chapter discusses some literatures written by many authors. it includes History of track and field, List of track and field events, Field events, Training Principles, coaching roles and skills, Developing a plan and Factors which affect women athletes.

2.1 History of track and field

The sport of track and field has its roots in human prehistory. Track and field-style events are among the oldest of all sporting competitions, as running, jumping and throwing are natural and universal forms of human physical expression. The first recorded examples of organized track and field events at a sports festival are the Ancient Olympic Games. At the first Games in 776 BC in Olympia, Greece, only one event was contested: the stadium footrace. The scope of the Games expanded in later years to include further running competitions, but the introduction of the Ancient Olympic pentathlon marked a step towards track and field as it is recognized today it comprised a five-event competition of the long jump, javelin throw, discus throw, the stadium foot race, and wrestling.

Track and field events were also present at the Pan-Hellenic Games in Greece around this period, and they spread to Rome in Italy around 200 BC. After the period of Classical antiquity (in which the sport was largely Greco-Roman influenced) new track and field events began developing in parts of Northern Europe in the Middle Ages. The stone put and weight throw competitions popular among Celtic societies in Ireland and Scotland were precursors to the modern shot put and hammer throw events. One of the last track and field events to develop was the pole vault, which stemmed from competitions such as the Fierljeppen contests in the Northern European Lowlands in the 18th century.

Discrete modern track and field competitions, separate from general sporting festivals, were first recorded in the late 19th century. These were typically organized by educational institutions, military organizations and sports clubs as competitions between rival establishments. Competitive hurdling first came into being around this point, with the advent of the steeplechase in England around 1850. The amateur athletics association was established in England in 1880 as the first national body for the sport of athletics and, under this grouping, track and field became the focus of the annual AAA Championships. The United States also began holding an annual national competition – the USA Outdoor Track and Field Championships – first held in 1876 by the New York Athletic Club. Following the

establishment of general sports governing bodies for the United States (the Amateur Athletic Union in 1888) and France (the Union des societies françaises de sports athlétiques in 1889), track and field events began to be promoted and codified.

The establishment of the modern Olympic Games at the end of the 19th century marked a new high for track and field. The Olympic athletics programme, comprising track and field events plus a marathon race, contained many of the foremost sporting competitions of the 1896 Summer Olympics. The Olympics also consolidated the use of metric measurements in international track and field events, both for race distances and for measuring jumps and throws. The Olympic athletics programme greatly expanded over the next decades, and track and field contests remained among the Games' most prominent. The Olympics was the elite competition for track and field, and only amateur sportsmen could compete. Track and field would continue to be a largely amateur sport, as this rule was strictly enforced: Jim Thorpe was stripped of his track and field medals from the 1912 Olympics after it was revealed that he had played baseball professionally. That same year, the International Amateur Athletic Federation (IAAF) was established, becoming the international governing body for track and field, and it enshrined amateurism as one of its founding principles for the sport. The National Collegiate Athletic Association held their first Men's Outdoor Track and Field Championship in 1921, making it one of the most prestigious competitions for students, and this was soon followed by the introduction of track and field at the inaugural World Student Games in 1923. The first continental track and field competition was the 1919 South American Championships, which was followed by the European Athletics Championships in 1934. Up until the early 1920s, track and field had been almost exclusively a male-only pursuit. The women's sports movement led to the introduction of five track and field events for women in the athletics at the 1928 Summer Olympics and more women's events were gradually introduced as years progressed (although it was only towards the end of the century that the men's and women's programmes approached parity of events). Furthermore, major track and field competitions for disabled athletes were first introduced at the 1960 Summer Paralympics.

With the rise of numerous regional championships, as well as the growth in Olympic-style multi-sport events (such as the Commonwealth Games and the Pan-American Games), competitions between international track and field athletes became widespread. From the 1960s onwards, the sport gained more exposure and commercial appeal through television coverage and the increasing wealth of nations. After over half a century of amateurism, the amateur status of the sport began to be displaced by growing professionalism in the late 1970s. As a result, the Amateur Athletic Union was dissolved in the United States and it was

replaced with a non-amateur body solely focused on the sport of athletics: The Athletics Congress (later USA Track and Field). The IAAF soon followed suit in 1982, abandoning amateurism, and later removing all references to it from its name by rebranding itself as the International Association of Athletics Federations. The following year saw the establishment of the IAAF World Championships in Athletics – the first ever global competition for just athletics which became one of track and field's most prestigious competitions along with the Olympics.

The profile of the sport reached a new high in the 1980s, with a number of athletes becoming household names (such as Carl Lewis, Sergey Bubka, Sebastian Coe, Zola Budd and Florence Griffith-Joyner). Many world records were broken in this period, and the added political element between competitors of the United States, East Germany, and the Soviet Union, in reaction to the Cold War, only served to stoke the sport's popularity. The increase in the commercial capacity of track and field was also met with developments in the application of sports science, and there were many changes to coaching methods, athlete's diet regimes, training facilities and sports equipment. This was also accompanied by an increase in the use of performance-enhancing drugs, and prominent cases, such as those of Olympic gold medalists Ben Johnson and Marion Jones, damaged the public image and marketability of the sport.

2.2 Field events

There are two types of field events: jumping, and throwing

2.2.1 Jumping

Jumping events are divided in to four such as; long jump, triple jump, high jump and pole volt.

At first look the four jumping events in athletics might appear very different from each other. From a technical point of view they range from the relatively simple Long Jump through the High Jump and Triple Jump to the apparently complex Pole Vault. There are, however, a number of very important commonalties among jumps, the understanding of which will help the coach working with athletes in any of the events.

Aims

The goal in the jumping events is to maximize either the measured distance or height of the athlete’s jump. In the Triple Jump, of course, the goal is to maximize the distance of three consecutive jumps while in the Pole Vault the athlete is aided by the use of the pole.

Biomechanical Aspects

Distance and height of flight are determined mainly by three parameters: (a) ***velocity at take off***, (b) the ***angle of take off*** and (c) the ***height of the centre of mass at take off***. Of these, take off velocity and take off angle are generally the most important.

The height of the centre of mass is determined by the athlete's body height though it is influenced by the athlete's position at take off. Take off velocity and take off angle are both the result of the actions of the athlete prior to and during take off. So, the take off is of major importance in all jumping events.

There are additional factors affecting the height of flight in the Pole Vault. The most important of these are the transfer of energy to the pole during the take off and then the return of that energy from the pole after the take off to provide additional lift to the athlete's body.

Once the flight path has been established at take off the measured result can be negatively influenced by, in the case of the High Jump and Pole Vault, ineffective bar clearance or, in the case of the Long and Triple Jump, poor landing technique.

Movement Structure

The movements of the jumping events can be broken down into four main phases:

1. Approach

2. Take off

3. Flight

4. Landing.

In the Triple Jump the take off-flight-landing sequence is repeated three times. In the Pole Vault the four phases apply but the phase structure used by coaches is modified to take into account the additional movements the athlete makes because of the pole.

In the approach phase the athlete generates horizontal velocity. In the Long Jump, Triple Jump and Pole Vault of the final result is largely determined by the level of horizontal velocity at take off, therefore, the athlete's objective in the approach phase of these events is to come close to his/her maximum running speed. In the High Jump horizontal velocity plays a lesser part in the final result and the athlete's objective is to find the optimum rather than maximum running speed in the approach. The approach phase also includes preparation for the take off. It is vital, therefore, that the running speed is appropriate for the athlete's ability to use it in the take off and that the athlete is in control of the speed.

The characteristics of a good approach in all the events are:

- It is fast.
- It is accurate and consistent.
- It prepares the athlete for a powerful take off.

In the take off phase the flight path of the athlete's body (and thus the maximum distance or height of flight) is determined. Clearly, the take off is of critical importance in all the jumping events. The athlete's objectives in this phase are to (a) ensure that his/her centre of mass is as high as possible at the moment of take off, (b) add the maximum level of vertical velocity to the horizontal velocity generated in the approach and (c) take off at the optimum angle. The optimums for (b) and (c) vary depending on the event and the technique used by the athlete.

The characteristics of an effective take off are:

- The athlete must be 'tall'.
- The take off foot is planted firmly in a fast, flat 'pawing' action – it is not stamped on the ground and there is no bracing action.
- The knee of the free leg is driven or punched through from the hips.
- The hip, knee and ankle joints are fully extended.

In the flight phase of the Long Jump and the three flight phases of the Triple Jump, the athlete's objectives are to avoid actions that would reduce the distance of the flight path and to position the body for landing. In the flight phase of High Jump and Pole Vault the athlete must avoid reducing the height of the flight path and ensure clearance of the bar. In the Pole Vault the objectives also include maximizing the additional lift available from the pole.

In the landing phase of the Long Jump and the final phase of the Triple Jump the athlete's objective is to minimize the loss of distance that occurs after the initial touchdown of the feet. In the first two landings of the Triple Jump the objective is to make the transition to an effective take off into the following phase. The athlete's objective in the landing phase of the High Jump and Pole Vault is land safely and avoid injury.

2.2.1.1 long jump

It is one of the oldest track and field events, having its roots as one of the events within the ancient Greek pentathlon contest. The athletes would take a short run up and jump into an area of dug up earth, with the winner being the one who jumped furthest. Small weights (Halters) were held in each hand during the jump then swung back and dropped near the end in order to gain extra momentum and distance. The modern long jump, standardized in England and the United States around 1860, bears resemblance to the ancient event although no weights are used. Athletes sprint along a length of track which leads up to a jumping board and a sandpit The athletes must jump before a marked line and their achieved distance is measured from the nearest point of sand which was disturbed by the athlete's body.

The athletics competition at the first Olympics featured a men's long jump competition and a women's competition was introduced at the 1948 Summer Olympics. Professional long

jumpers typically have strong acceleration and sprinting abilities. However, athletes must also have a consistent stride to allow them to take off near the board while still maintaining their maximum speed. In addition to the traditional long jump, a standing long jump contest exists in which athletes must leap from a static position without the aid of a run up. A men's version of this event featured on the Olympic program from 1900 to 1912

2.2.1.2 Triple jump

Similar to the long jump, the triple jump takes place on a track heading towards a sandpit. Originally, athletes would hop on the same leg twice before jumping into the pit, but this was changed to the current "hop, step and jump" pattern from 1900 onwards. There is some dispute over whether the triple jump was contested in ancient Greece: while some historians claim that a contest of three jumps occurred at Ancient Games, others such as Stephen G. Miller believe this to be incorrect, suggesting that the belief stems from a mythologized account of Phayllus of Croton having jumped 55 ancient feet (around 16.3 m). The Book of Leinster, a 12th century Irish manuscript, records the existence of geal-ruith (triple jump) contests at the ancient Tailteann Games

The men's triple jump competition has been ever-present at the modern Olympics, but it was not until 1993 that a women's version gained World Championship status and went on to have its first Olympic appearance three years later. A men's standing triple jump event featured at the 1900 and 1904 Olympics but such competitions have since become very uncommon, although it is still used as a non-competitive exercise drill.

2.2.1.3 High jump

The first recorded instances of high jumping competitions were in Scotland in the 19th century. Further competitions were organized in 1840 in England and in 1865 the basic rules of the modern event were standardized there Athletes have a short run up and then take off from one foot to jump over a horizontal bar and fall back onto a cushioned landing area. The men's high jump was included in the 1896 Olympics and a women's competition soon followed in 1928.

Jumping technique has played a significant part in the history of the event. High jumpers typically cleared the bar feet first in the late 19th century, using the Scissors, Eastern cut-off or Western roll technique. The straddle technique became prominent in the mid-20th century, but Dick Fosbury overturned tradition by pioneering a backwards and head-first technique in the late 1960s – the Fosbury Flop – which won him the gold at the 1968 Olympics. This technique has become the overwhelming standard for the sport from the 1980s onwards The

standing high jump was contested at the Olympics from 1900 to 1912, but is now relatively uncommon outside of its use as an exercise drill.

2.2.1.4 Pole vault

In terms of sport, the use of poles for vaulting distances was recorded in Fierljeppen contests in the Frisian area of Europe, and vaulting for height was seen at gymnastics competitions in Germany in the 1770s. One of the earliest recorded pole vault competitions was in Cumbria, England in 1843. The basic rules and technique of the event originated in the United States. The rules required that athletes do not move their hands along the pole and athletes began clearing the bar with their feet first and twisting so that the stomach faces the bar. Bamboo poles were introduced in the 20th century and a metal box in the runway for planting the pole became standard. Landing mattresses were introduced in the mid-20th century to protect the athletes who were clearing increasingly greater heights.

The modern event sees athletes run down a strip of track, plant the pole in the metal box, and vault over the horizontal bar before letting go of the pole and falling backwards onto the landing mattress. While earlier versions used wooden, metal or bamboo, modern poles are generally made from artificial materials such as fiberglass or carbon fiber. The pole vault has been an Olympic event since 1896 for men, but it was over 100 years later that the first women's world championship competition was held at the 1997 IAAF World Indoor Championships. The first women's Olympic pole vaulting competition occurred in 2000

2.2.2 Throwing

Throwing events divided in to four disciplines such as shot put, discus throw, Javelin throw and hammer throw. Each of the events has a specific set of restrictions including (a) the characteristics of the implement used (size, weight, shape and aerodynamic qualities), (b) space limitations (the Shot Put ring, the length of the Javelin Throw runway, the throw sector lines) and (c) technique requirements dictated by the rules which influence the sequence of movements and make them unique. However, there are a number of very important commonalties among the different throws, the understanding of which will help the coach working with athletes in any of the events.

Aims

The goal in the throwing events is to maximize the measured distance covered by the implement.

Biomechanical Aspects

The distance that any thrown object travels is determined by a number of parameters. For the athlete and coach the most important are the three release parameters: (a) ***height*** (b) ***speed***

and (c) ***angle*** and, in the cases of the Discus Throw and Javelin Throw, the (d) ***aerodynamic qualities of the implement*** and (e) ***environmental factors*** (wind and air density due to relative humidity and or altitude).

The release height is determined by the athlete's body height though it is influenced by the athlete's position at release. The release velocity and release angle are both the result of the actions of the athlete prior to and during release. Neither the aerodynamic qualities of the implement nor the environmental factors can be affected by the athlete, though it is possible to make some adjustments to the throwing technique that will maximise the potential distance of a throw.

Movement Structure

The movements of the throwing events can be broken down into four main phases:

1. Preparation

2. Momentum building

3. Delivery

4. Recovery.

Note: The descriptions below apply to right-handed throwers.

In the preparation phase the athlete grips the implement and assumes a position to start the momentum building phase. The preparation has no direct influence on the throwing distance.

In the momentum building phase the athlete and implement initially move together as one unit but then the athlete overtakes the implement during the 'hop' or impulse stage in the javelin, the glide in the linear shot put, the turn in the discus and the rotational shot put and during the single support phase of the hammer turns.

In the delivery phase velocity is stored, increased and transferred from the athlete's body to the implement and the implement is released. The link between the momentum building phase and the delivery phase is the ***power position***, when the athlete has two feet on the ground. With some differences for the Hammer Throw, the common features of an effective power position in the throwing events are:

- Muscular tension throughout the body.
- A balanced stance with both feet on the ground.
- Body weight over the right foot, right heel lifted.
- Right heel and left toe lined up.
- Backward lean against the direction of the throw.

In addition to an effective power position the common elements of effective delivery phases are:

- A well co-ordinated sequence of successive action of all the joints involved in the throw: foot, knee, hip, shoulder, arm and hand.
- A twisting extension of the right leg using the strong muscles of the leg to lift the body.
- A bracing of the left leg to accelerate the right side of the body and produce vertical movement.
- A bow tension or twisted position causing high pretension in the trunk, shoulder and arms which can be used to produce acceleration.
- A blocking action in the upper body in which turning movement of the trunk is stopped with the left side allowing the right side to accelerate.

2.2.2.1 Shot put

The genesis of the shot put can be traced to pre-historic competitions with rocks: in the middle ages the stone put was known in Scotland and the steinstossen was recorded in Switzerland. In the 17th century, cannonball throwing competitions within the English military provided a precursor to the modern sport. The modern rules were first laid out in 1860 and legal throws had to be taken within a square throwing area of seven feet (2.13 m) on each side. This was amended to a circle area with a seven foot diameter in 1906 and the weight of the shot was standardized to 16 pounds (7.26 kg). Throwing technique was also refined over this period, with bent arm throws being banned as they were deemed too dangerous and the side-step and throw technique arising in the United States in 1876. Shot Putters are generally the largest and most explosive athletes on a team.

The shot put has been an Olympic sport for men since 1896 and a women's competition using a 4 kg (8.82 lb) shot was added in 1948. Further throwing techniques have arisen since the post-war era: in the 1950s Parry O'Brien popularized the 180 degree turn and throw technique commonly known as the "glide," breaking the world record 17 times along the way, while Aleksandr Baryshnikov and Brian Old-field introduced the "spin" or rotational technique in 1976.

2.2.2.2 Discus throw

As one of the events within the ancient pentathlon, the history of the discus throw dates back to 708 BC. In ancient times a heavy circular disc was thrown from a set standing position on a small pedestal, and it was this style that was revived for the 1896 Olympics. This continued until the 1906 Intercalated Games in Athens, which featured both the ancient style and the increasingly popular modern style of turning and throwing. By the 1912 Olympics, the

ancient standing throw style had fallen into disuse and contests starting within a 2.5 m squared throwing area became the standard. The discus implement was standardized to 2 kg (4.4 pounds) in weight and 22 cm (8 inches) in diameter in 1907.The women's discus was among the first women's events on the Olympic program, being introduced in 1928.

2.2.2.3 Javelin throw

As an implement of war and hunting, javelin throwing began in prehistoric times. Along with the discus, the javelin was the second throwing event in the ancient Olympic pentathlon. Records from 708 BC show two javelin competition types co-existing: throwing at a target and throwing the javelin for distance. It was the latter type from which the modern event was derived. In ancient competitions, athletes would wrap an ankyle (thin leather strip) around the javelin which acted as a sling to gain extra distance. The javelin throw gained much popularity in Scandinavia in the late 18th century and athletes from the region continue to be among the most dominant throwers in men's competitions. The modern event features a short run up on a track and then the thrower releases the javelin before the foul line.

The first Olympic men's javelin throw contest was held in 1908 and a women's competition was introduced in 1932. The first javelins were made of various types of wood, but in the 1950s, former athlete Bud Held introduced a hollow javelin, then a metal javelin, both of which increased throwers performances. Another former athlete, Miklós Németh invented the rough-tailed javelin and throws reached in excess of 100 m – edging towards the limits of stadium. The distances and the increasing number of horizontal landings led the IAAF to redesign the men's javelin to reduce distance and increase the implement's downward pitching moment to allow for easier measurement. Rough-tailed designs were banned in 1991 and all marks achieved with such javelins were removed from the record books. The women's javelin underwent a similar redesign in 1999. The current javelin specifications are 2.6 to 2.7 m in length and 800 grams in weight for men, and between 2.2 to 2.3 m and 600 g for women

2.2.2.4 Hammer throw

The earliest recorded precursors to the modern hammer throw stem from the Tailteann Games around 1800 BC, which featured events such as throwing either a weight attached to a rope, a large rock on a wooden handle, or even a chariot wheel on a wooden axle. Other ancient competitions included throwing a cast iron ball attached to a wooden handle – the root of the term "hammer throw" due to their resemblance to the tools. In 16th century England, contests involving the throwing of actual blacksmith's Sledgehammers were recorded. The hammer implement was standardized in 1887 and the competitions began to

resemble the modern event. The weight of the metal ball was set at 16 pounds (7.26 kg) while the attached wire had to measure between 1.175 m and 1.215 m.

The men's hammer throw became an Olympic event in 1900 but the women's event – using a 4 kg (8.82 lb) weight – was not widely competed until much later, finally featuring on the women's Olympic programmer a century later. The distance's thrown by male athletes became greater from the 1950s onwards as a result of improved equipment using the denser metals, a switch to concrete throwing areas, and more advanced training techniques. Professional hammer throwers as historically large, strong, sturdy athletes. However, qualities such as refined technique, speed and flexibility have become increasingly important in the modern era as the legal throwing area has been reduced from 90 to 34.92 degrees and throwing technique involves three to four controlled rotations.

2.3 Developing a Plan

Good planning, organization and review are essential in whatever we do in our lives. Whether it is small things like arranging to meet friends, to bigger things like learning something new or to very big things such as building a house we need to plan, then build and review. If your goal, for example, is to travel to see a distant relative you may start by finding out how far away they live, what are the possible means of transport, when is it convenient to visit, how long will you stay there and will you come back the same way? Deciding these things is all part of the planning process. As you set out on your journey you will monitor your progress to ensure that everything is going to plan. Once you have returned home and the journey is now complete, you review how the trip went; what went well in addition to what did not go as well and what you might have learned to apply to any future travels.

The exact same steps are required in being an effective coach and the planning, organization, doing, monitoring and reviewing skills are all part of the coaching process. If you do not plan and review when you coach do not be surprised if, on your ‘coaching journey’, you and your athletes do not ‘arrive’ at where you want to be. We have already seen that the process of coaching can be simply stated as planning what you are going to do, doing what you have planned to do and then reviewing what you have done. This ‘Plan-Do-Review’ process of coaching is cyclical, repeated over and over. We have looked at the ‘doing’ of your coaching in the chapter on developing the skills of coaching and noted that coaches, particularly novice coaches, tend to enjoy this doing aspect of the coaching process most. We have learned that long term athlete development means that coaches should have the athletes they coach ‘doing the right things at the right time’. This is not possible without planning and review and the coach needs to take the time to develop the skills of effective planning and review. In the

long term plan, all training should be planned so that it is suitable for the long term development of each athlete's potential.

Planning the Training Programme

One of the most important responsibilities of the coach is planning the athlete's training programme. Planning is a long term process since elite athletes may not reach their full performance capabilities until
24 years of age or older. In this long term planning the coach has traditionally looked at what the athlete wants to achieve in competition for a particular year and has divided this year into a number of periods, structuring the year according to these competition needs. Now we know that this traditional approach to planning ignores the long term developmental needs of the younger and beginner athletes. There should be structure to the training and periods of differing activities but these should reflect the athlete's stage of athlete development, not the demands of competition. The first thing that a coach needs to do in planning the training programme is to identify what stage of athlete development each athlete is in by looking at their chronological age, biological age and training age. In those situations where the coach uses competitions to determine the training structure for athletes in the Kids' Athletics, Multi-Events and Event Group Development stages, this is a clear sign that the coach has not understood long term development and is specialising too early.

The term 'periodization' is used simply to describe the division of the training programme into a number of periods of time. Each of these periods will have specific training objectives. The major objective of any plan is to meet the long term needs of the athlete. For athletes in the Specialization and Performance stages it is focused also on bringing the athlete to the most important competitions of the season, fully prepared and in a physical and mental state to perform at a level never previously achieved. Achieving optimum performance at the right place and time is called 'peaking'.
Planning for the year or season ahead is done backwards. The coach and athlete decide how much time is available for training and then plan where they want to be at the end of this time. This might be where and when the major competitions will be for the season ahead but for athletes in the Multi-Events and Event
Group Development stages the coach should always remember that there will only be one 'peak' in the year. The next task is to work back in time through the training periods until arriving at the beginning of the training year. All training plans should be simple and flexible

as the plan will be modified according to the athlete's progress and improvements in the coach's knowledge and experience.

2.4 Training Principles

Training is a systematic process with the objective of improving an athlete's fitness in a selected activity.

It is a long term process that is progressive and recognizes the individual athlete's needs and capabilities. Training programmes use exercise or practice to develop the qualities required for an athlete's long term Development.

The process of training can be planned because training follows certain principles. These principles of training need to be fully understood before the coach can produce effective long term programmes. Training to improve an athlete's performance obeys the principles of training such as: specificity, overload, adaptation, reversibility, Variation, Individual Differences and active involvement.

2.4.1 Specificity

To improve the range of movement for a particular joint action, you have to perform exercises that involve that joint action. It is quite possible for an athlete to have good mobility in the shoulder joint but to have poor hip mobility. Conducting shoulder mobility exercises may further improve the shoulder mobility but it will not affect hip mobility.

In addition to developing general levels of all round mobility in an athlete, coaches need to consider the specific mobility requirements of a given event. The coach can analyze the technique of his/her event, identify which joint actions are involved and determine which need to be improved in terms of the range of movement. A thrower, for example, might require improvements in his/her shoulder and spine mobility.

The amount and nature of the mobility training required by each athlete will vary according to the individual athlete's event requirements and his/her individual range of movement for each joint action. It may be necessary to measure the range of movement for particular joint actions to determine the present range and future improvement.

Specificity is an important principle in strength training, where the exercise must be specific to the type of strength required, and is therefore related to the particular demands of the event. The coach should have knowledge of the predominant types of muscular activity associated with his/her particular event, the movement pattern involved and the type of strength required. Although specificity is important, it is necessary in every schedule to include exercises of a general nature (e.g. power clean, squat). These exercises may not relate too closely to the

movement of any athletic event but they do give a balanced development and provide a strong base upon which highly specific exercise can be built.

To use heavy throwing implements or weighted belts may seem the obvious solution to the specificity problem, but it is probable that by doing so the athlete will unconsciously develop compensatory movements in his/her technique in adjusting to the new weight. Most authorities consider that in the throwing events the training implement should be kept within 15% of the competition weight.

Can we be specific in the speed of movement? Training at low velocity increases low velocity strength substantially but has little effect on high velocity strength.

Is there then any justification for slow velocity strength training for athletes who have to perform movements at great speed? Yes. Slow velocity training may be of value in stimulating maximum adaptation within the muscle. Muscle growth (and increase in contractile strength) is related to the amount of tension developed within the muscle. When an athlete performs high velocity strength work, the force he/she generates is relatively low and therefore fails to stimulate substantial muscular growth. If performed extensively the athlete may not be inducing maximum adaptation with the muscles. It is important therefore for the athlete to use fast and slow movements to train the muscles.

2.4.2 Overload

When an athlete performs a mobility exercise, he/she should stretch to the end of his/her range of movement. In active mobility, the end of the range of movement is known as the active end position. Improvements in mobility can only be achieved by working at or beyond the active end position.

- Passive exercises involve passing the active end position, as the external force is able to move the limbs further than the active contracting of the agonist muscles
- Kinetic mobility (dynamic) exercises use the momentum of the movement to bounce past the active end position

A muscle will only strengthen when forced to operate beyond its customary intensity. The load must be progressively increased in order to further adaptive responses as training develops, and the training stimulus is gradually raised. Overload can be progressed by:

- increasing the resistance e.g. adding 5kg to the barbell
- increasing the number of repetitions with a particular weight
- increasing the number of sets of the exercise (work)
- increasing the intensity- more work in the same time, i.e. reducing the recovery periods

2.4.3 Adaptation

The body will react to the training loads imposed by increasing its ability to cope with those loads. Adaptation occurs during the recovery period after the training session is completed.

If exercises lasting less than 10 seconds (ATP-CP energy system) are repeated with a full recovery (approximately 3 to 5 minutes) then an adaptation in which stores of ATP and CP in the muscles are increased.

This means more energy is available more rapidly and increases the maximum peak power output. If overloads are experienced for periods of up to 60 seconds, with a full recovery, it is found that glycogen stores are enhanced.

The most noticeable effect of weight training with heavy loads on fast twitch muscle fibers is larger and stronger muscles (hypertrophy).

The rate of adaptation will depend on the volume, intensity and frequency of the exercise sessions. In their recent investigation 6 weeks of low-volume, high-intensity sprint training induced similar changes in selected whole-body and skeletal muscle adaptations as traditional high-volume, low-intensity endurance workouts undertaken for the same intervention period. The time of adaptation may be quicker for high-intensity sprint training when compared to low-intensity endurance training, but that over a longer period, the two training regimens elicit similar adaptations.

2.4.4 Reversibility or Detraining

Improved ranges of movement can be achieved and maintained by regular use of mobility exercises. If an athlete ceases mobility training, his/her ranges of movement will decline over time to those maintained by his/her other physical activities.

When training ceases the training effect will also stop. It gradually reduces at approximately one third of the rate of acquisition. Athletes must ensure that they continue strength training throughout the competitive period, although at a much reduced volume, or newly acquired strength will be lost

Detraining risk for athletes

The effects of a long period of inactivity on physical fitness comes from a UK case study of an Olympic rower, who took more than 20 weeks to fully recover his fitness after an eight-week lay-off. Although the athlete in question took the time off in response to the need for a physical and mental break rather than because of illness and injury, this case study has clear implications for injured athletes.

The athlete, an elite heavyweight male rower and current Olympic champion, allowed himself the luxury of eight weeks of inactivity after competing in the Sydney Olympic Games in September 2000. His fitness was assessed by means of a lab-based incremental rowing test

on four separate occasions: eight weeks before the Olympics; after eight weeks of inactivity; after eight weeks of retraining; and after a further 12 weeks of training. The key findings were as follows: After eight weeks' detraining

- $V0_2$ peak had decreased by 8%. After eight weeks of retraining it had increased by only 4%, returning to just below pre-Olympic values after a further 12 weeks;
- Power at peak oxygen consumption fell from a pre-Olympic value of 546W to 435W - a reduction of 20%. After eight weeks' retraining it had increased by 15%, resuming pre-Olympic values after a further 12 weeks;
- Power at reference blood lactate concentrations declined by 27%, but returned to just below or just above pre-Olympic levels after 20 weeks' retraining.

The researchers recommend that training programs should limit periods of complete inactivity to no more than two to three weeks. Prolonged periods of inactivity should be avoided and the training programme should incorporate some form of "maintenance" training where a prolonged break is desired

2.4.5 Variation Principle

This principle has several meanings. After your athletes have trained hard for several days, they should train lightly to give their bodies a chance to recover. Over the course of the year use training cycles (periodization) to vary the intensity and volume of training to help your athletes achieve peak levels of fitness for competition. This principle also means that you should change the exercises or activities regularly so that you do not overstress a part of the body. Of course changing activities also maintains athletes' interest in training.

Perhaps you're thinking that the specificity principle and variation principle seem to be incompatible. The specificity principle states that the more specific the training to the demands of the sport, the better; and the variation principle seemingly asserts the opposite-train by using a variety of activities. The incompatibility is resolved by the degree to which each principle is followed. More specific training is better, but it can become exceedingly boring. Thus some variety that involves the same muscle groups is a useful change.

2.4.6 Individual Differences Principle

Each individual is unique. Each individual brings to athletics his own capabilities, capacities and responses to training. Different athletes will respond to the same training in different ways. There is no such thing as an ideal training programme that will produce optimal results for everyone. You, as the coach, need to understand the principles of training and apply them with your knowledge of the individual athlete. This knowledge should be of the many factors that affect the planning of the individual athlete's training programme. These factors include

heredity, developmental age and training age. Athletes inherit physical, mental and emotional characteristics from their parents. This is heredity. These inherited characteristics should be recognised by the coach. Many of these characteristics can be modified by systematic training but the extent to which they can be changed and modified will be limited by the inherited potential. Not every athlete has the inherited potential to be an Olympic champion. All athletes have the ability to make the most of what inherited potential they do have.

Our knowledge of growth and development tells us that young athletes of the same chronological age can be at very different levels of physical maturity. Individuals of the same chronological age can often be up to four years apart in their developmental or biological ages.

Each individual athlete has a different level of fitness and experience. The length of time an athlete has been training will affect their fitness level and capacity for work. Training age must be considered and is simply the number of years an athlete has trained for athletics or an athletics-related activity. The importance of knowing an athlete's training age was emphasised in the chapter on 'Developing the Athlete'. It is not possible to know the appropriate stage of development without knowing an athlete's chronological age, biological age and training age. Without knowing the athlete's stage of athlete development it is not possible to plan appropriate training.

Athletes of the same chronological age, but different stages of athlete development and very different capacities for training. The athletes' capacities for work may be similar, but the individual responses to training will still need to be considered.Athletes of different chronological ages, but same stage of athlete development and similar capacities for training.

Every athlete is different and responds differently to the same training activities. The value of training depends in part on the athlete's maturation. Before puberty, training is less effective than after puberty. Other factors that affect how athletes respond to training include their pre training condition; genetic predisposition; gender and race; diet and sleep; environmental factors such as heat, cold, and humidity; and of course motivation. As discussed previously, it's essential to individualize training as much as possible.

2.5 Coaching Roles and Skills

The United Kingdom Coaching Strategy describes the role of the sports coach as one that "enables the athlete to achieve levels of performance to a degree that may not have been possible if left to his/her own endeavors". Dyson speaking to the 19th session of the International Olympic Academy, Greece 1979, widened the horizon when he said that "the wise coach develops not only the fullest physical potential in his charges, but also those capacities and habits of mind and body which will enrich and ennoble their later years".

The role of the sports coach is to create the right conditions for learning to happen and to find ways of motivating the athletes. Most athletes are highly motivated and therefore the task is to maintain that motivation and to generate excitement and enthusiasm. The role of the coach could be quite daunting since the above implies what could be construed as quite awesome responsibility, especially for the part-time non-professional.

2.5.1 Coaching Roles

The roles that you will find you undertake as a coach will be many and varied and you will find at some stage in your coaching career that you will be, but not limited to:

Advisor - Advising athletes on the training to be conducted and suitable kit and equipment.

Assessor - Assessing athletes performance in training and in competition

Counselor - Resolving emotional problems on the basis that sharing anxieties can be both relieving and reassuring.

Demonstrator - Demonstrate to the athletes the skill you require them to perform.

Friend - Over the years of working with an athlete a personal relationship is built up where as well as providing coaching advice you also become someone, a friend, who they can discuss their problems or share their success with. It is important to keep personal information confidential because if you do not then all respect the athlete had for you as a friend and coach will be lost.

Facilitator - Identify suitable competitions for them to compete in to help them achieve their overall objectives for the year.

Fact finder - Gathering data of national and international results and to keep abreast of current training techniques.

Fountain of knowledge - This may be part of the advisor role in that you will often be asked questions on any sporting event, events that were on the television, diet, sports injuries and topics unrelated to their sport.

Instructor - Instructing athletes in the skills of their sport.

Mentor - When athletes attend training sessions you are responsible, to their parents and family, for ensuring that they are safe and secure. You have to monitor their health and safety whilst training and support them should they have any problems or sustain any injuries.

Motivator - Maintain the motivation of all the athletes the whole year round.

Organiser and planner - Preparation of training plans for each athlete and organise attendance at meetings and coaching clinics.

Role Model - A person who serves as a model in a particular behavioural or social role for another person to emulate. The way you conduct yourself whilst in the presence of your athletes provides an example of how they should behave - what sort of example should we be

providing to someone else's children? Perhaps one of the most important roles of a coach.

Supporter - Competition can be a very nerve racking experience for some athletes and often they like you to be around to help support them through the pressures. Role of a 'Friend' and perhaps 'Counsel or' come in here to.

The roles of the coach and athlete in determining training requirements will change over the time an athlete is with a coach. When an athlete first starts in a sport/event (cognitive stage) the coach's role is to direct the athlete in all aspects of training (telling or showing coaching style). As the athlete develops and demonstrates a sound technical understanding (associative stage) of the sport/event then gradually the coach's role changes to one where the coach and athlete discuss and agree appropriate training requirements (involving coaching style). As the athlete matures and demonstrates a sound understanding of training principals (autonomous stage) then the athlete will determine the training requirements. The coach's role becomes one of a mentor providing advice and support as and when required.

2.5.2 Coaching skills

As a coach you will initially need to develop the skills of: organizing, safety, building rapport, providing instruction and explanation, demonstrating, observing, analyzing, questioning and providing feedback.

Organizing

In organizing the training session you need to plan in advance how you will manage the athletes, equipment and area - group athletes accordingly to numbers, ability and the activity - continually check the plan is safe during the session.

Safety

In providing a safe environment for the athletes you must assess the risk of: the area, equipment and athletes - continue to assess risk throughout the session - keep athletes on the set task and follow correct practice and progressions.

Building Rapport

In building rapport with the athletes learn and use their names, smile and make eye contact, coach the athlete rather than the sport, show interest in and respect for the athletes.

Instruction and explanation

In providing Instruction and Explanation you should think about and plan what you are going to say, gain the athlete's attention, ensure they can all hear you, keep it simple and to the point and check they understand by asking open questions.

Demonstration

In providing demonstration make sure you are in a position where the athletes can clearly see and hear you, identify 1 or 2 key points for the athletes to focus on, repeat the demonstration

in silence 2 or 3 times (side, back and front view), ask if they have any questions and check they understand by asking open questions. There are times when it might be more appropriate to use someone else to provide the demonstration.

Observation and Analysis

In observing and analyzing break the action down into phases, focus on one phase at a time, observe the action several times from various angles & distances, compare the action with your technical model and if appropriate determine what corrective action is required. Remember your ears can also be used to observe - e.g. listen to the rhythm of the feet of the hurdler Feedback

In providing feedback encourage the athlete to self analyze by asking appropriate open questions, provide specific and simple advice, limit the advice to 1 or 2 points, check they understand what they will do next and make the whole process a positive experience for the athlete.

2.6 Factors which affect women athletes

2.6.1 Gender differences (anatomic and physiologic) that may affect performance

Adult females, compared with their male counterparts, tend to have shorter stature and limbs, weigh less, and have smaller articular surfaces. These differences result in less power for striking, kicking, and throwing Women have wider pelvis but also narrower shoulders and smaller thoraces than men Their leg length per total height is less than men's and most of their subcutaneous fat is in their hips and lower body, resulting in a lower center of gravity and, hence, better balance.

Comparing equally trained and conditioned women and men, men have more muscle mass per total body weight and therefore can run faster, jump higher, and lift more weight. Female athletes are more buoyant and better insulated because they have a greater percentage of body fat per body weight and therefore may have an advantage in cold water sports.

Women have a smaller stroke volume because they have a smaller heart size and heart volume. This means that they have an increased heart rate for a given sub maximal cardiac output (cardiac output ¼ stroke volume _ heartrate). Because a woman's stroke volume is less, even with an increased heart rate, her cardiac output is approximately 30% lower than an equally trained man's cardiac output Her systolic blood pressure is also lower than a man's. Because men have approximately 6% more red blood cells and 10% to 15% more hemoglobin per 100 mL of blood than women, the blood of men has a greater oxygen-carrying capacity.

Compared with women, adult men, because of their chest size, have a greater vital capacity, which is the maximal volume of air that can be moved through the lungs from a maximal inspiration to a maximal expiration. A man's residual volume, the volume of air that remains in the lungs after maximal expiration, is also greater. Women have less total lung capacity because their smaller vital capacity and residual volume. Finally, an adult woman's breathing capacity is approximately 10% less than her age-matched male counterpart.

Women have a smaller tidal volume but a faster respiratory rate than men at the same sub maximal minute volume (tidal volume _ respiratory rate) Oxygen pulse (ie, the quantity of oxygen used by the body per heartbeat), which is a measure of the efficiency of the cardiovascular and respiratory systems, is approximately three times higher in adult men. These differences give men a greater maximum oxygen uptake (VO2max. VO2max assesses cardiovascular fitness or aerobic ability by measuring the lung's ability to extract oxygen from the air and deliver it to the blood, the blood's ability to circulate that oxygen to muscle tissue, and the muscle's ability to use oxygen effectively in energy pathways. Before puberty, VO2max is about the same for both sexes. By the late teens, both sexes reach their peakVO2max; however, postpubertal men have an average 28% greater VO2max than women when expressed per total body weight and15% to25% more than that of a woman when expressed per fat-free weight.

Lactate threshold values are similar in male and female endurance athletes At distances greater than 42.2 km (26.2 miles, the distance of a marathon), sex differences in running speeds are negligible, with females potentially outperforming men at distances greater than 70 km (43.5 miles). One of the potential reasons given for enhanced performance of women in long-distance running events (O42.2 km) is the fatigue resistance of their muscles. Through conditioning in warm weather, both men and women can increase the amount of sweat and the rate of sweating.

Women mature physiologically earlier than men. The adolescent growth spurt, which precedes sexual maturation, occurs in girls at about 11 years of age; the adolescent growth spurt in boys does not begin until approximately 1 to 3 years later. Bone growth in girls ceases at about age 20 years, but in boys growth continues until the early 20s.

Strength training has several benefits for women. Because women tend be at higher risk for osteoporosis, strength training provides enhanced bone modeling to increase bone strength and reduce the risk for osteoporosis. Strength training increases functional strength for sports and daily activities, decreases nonfunctional body fat, and increases lean body mass. It creates a higher metabolic rate because of an increase in muscle and decrease in fat. From a psychological aspect, it improves self-esteem and confidence.

Women, on average, have roughly two thirds the absolute strength and power output of men. A greater difference is typically found between men and women in absolute upper body strength compared with lower body strength. Women possess approximately 40% to 60% of the upper body strength and 70% to 75% of the lower body strength of men. When measuring strength, factoring in lean body mass is important. Based on a strength-lean-body-mass ratio, women are almost equal in strength to men, and when strength is calculated per cross-sectional area of muscle, significant gender difference does not exist. For this reason, women should train in the same ways as men.

Hormones also play a role in the development of absolute strength in men and women. The androgens from the adrenal glands and ovaries are the hormones that influence strength. The most important androgens for strength development are testosterone and androstenedione. Average women have approximately one tenth the testosterones of men. Women who have higher testosterone levels may have a greater potential for strength and power development. Although hormones help in strength development, whether they are the reason for the differences in absolute strength is uncertain.

2.6.2 ENDOCRINE OR MENSTRUAL FACTORS

he female athlete responds to a programme of regular exercise in a similar fashion to the male. Women show improvements in aerobic capacity, strength, and “speed” to the same qualitative degree as men. However, due to differences associated with in-utero hormonal effects on myocyte stem cell number, as well as those induced by estrogen vs. androgen, women have a smaller skeleton, less muscle mass, lower hemoglobin levels, and a higher proportion of body fat. Thus, women’s world records are 7–10% lower than those of men. Female athletes generally show training-induced structural changes of lower body fat and a higher percent of muscle than untrained women.

A. Endocrine Function

The changes in body composition and energy metabolism associated with intense exercise may be responsible for a number of changes in endocrine function, particularly those related to the reproductive cycle.

1. Menarche

A number of studies have suggested that an exercise programme begun early in life may delay the onset of menarche. This has not been confirmed, but women who have not begun menarche by age 16 in the northern hemisphere (and perhaps earlier in other populations) should have an endocrine evaluation.

2. Exercise-Related Changes in the Menstrual Cycle

Exercise and its energy demands, if not compensated by adequate nutrition, may affect several cerebral neuro-transmitters and, subsequently, the hormones of the hypothalamic-pituitary-ovarian axis. These hormonal changes may be reflected in various ways: luteal phase deficiency, anovulatory cycles, and exercise-associated amenorrhea (EAA). About 2–5% of the untrained female population has one of
these abnormalities; among distance runners and some athletes in other events the incidence ranges from 5–65%.

a. Luteal Phase Deficiency

In this condition, the menstrual cycle length is unchanged, but the luteal phase is shortened. Progesterone secretion is deficient, probably associated with a defective mid-cycle LH surge. The subject usually does not notice any changes, and therefore does not seek evaluation unless complications occur. These include infertility, endometrial hyperplasia, and a reduced bone mass (with stress fractures). Studies show an absence of the basal body temperature (BBT) rise (due to the lack of the LH surge), low plasma progesterone, and an abnormal endometrial biopsy. This may represent a precursor to the development of anovulation or amenorrhea. Although menstrual cycles may be within normal limits, it is uncertain whether estrogen therapy may be necessary to prevent bone mineral loss.

b. An ovulation

Anovulatory cycles may be short (less than 21 days between menses) or very long (35 to 150 days). Affected women may produce adequate estrogen, but do not have an LH pulse, and have low progesterone levels. The unopposed estrogen causes proliferative endometrial growth and may lead to irregular, heavy bleeding. This can cause iron deficiency and anemia. Management may include monthly progestin therapy during days 14–25, or oral contraceptives for sexually active women. Clomiphene may be used to induce ovulation if pregnancy is desired. However, in these cases there may not be adequate estrogen to protect bone mineral competence, and estrogen replacement or an oral contraceptive should be considered. Athletes and physicians should always be aware that clomiphene is included in the list of prohibited substances.

c. Exercise-Associated Amenorrhea (EAA)

This is the commonest type of menstrual change noted in athletes, and occurs in one of two forms:

i. Primary amenorrhea. Primary amenorrhea is the absence of menses by age 16. This is probably due to multiple factors, including intense training from an early age, plus dietary inadequacy leading to an energy drain. Risks include a low bone density, scoliosis, and stress fractures. Amenorrhea beyond age 16 should be fully evaluated.

ii. Secondary amenorrhea. This is defined as the absence of 3 to 12 consecutive menses. The lack of a uniform definition makes the incidence difficult to determine. About 2% to 5% of "normal" women are amenorrheic at some time. The incidence in athletes ranges from 5% to 65%, depending upon the sport and event. This condition is most common among distance runners.

The causes of amenorrhea are not well-defined, but are probably multi-factorial. Intensive training demands in the face of inadequate caloric and nutritional replacement leads to an "energy drain" that affects cerebral neuro-transmitters and the hypothalamic-pituitary-ovarian hormone system. EAA is a type of hypothalamic amenorrhea. The gonadotrophin-releasing hormone (GnRH) pulse generator is suppressed. Many hormones that affect the GnRH pulse generator are altered by exercise. These include the endorphins, prostaglandins, catecholestrogens, serotonin, catecholamines, dopamine, cortisol, etc. These hormones in turn affect the release of LH and FSH, and thus estrogen and progesterone. A combination of the above factors, which results in an energy drain, is likely responsible for this reversible suppression of the GnRH pulse generator. The long-term consequences include infertility, a reduced bone density, stress fractures, and increased injuries.

3.Risks of Altered Menstrual Function

Abnormal menstruation or amenorrhea are often regarded by athletes as favorable, because they believe that performance is affected by the menstrual cycle and that amenorrhea is indicative of "leanness" and fitness. Recent studies have shown, however, that serious consequences result from prolonged amenorrhea, or even a short luteal phase. This hypoestrogenic state results in an uncoupling of bone formation and resorbtion, with increased resorbtion resulting in an approximate 4% loss of trabecular bone for each year of amenorrhea. This results in a higher incidence of stress fractures, and also eventual osteoporosis. Mineralisation is only partially restored with estrogen therapy and cannot be restored with calcium administration alone. Therefore, intervention should take place within 3 to 6 months of the onset of amenorrhea. Further, the low estrogen state also affects the vascular endothelium and may be a factor in the development of premature atherosclerosis. Also, athletes must be cautioned that EAA should not be considered a form of contraception, as ovulation may occur before menses resume.

B. Dysmenorrhea

Pre-menstrual symptoms of bloating, weight gain, depression, and abdominal cramping affect the athlete's sense of well being and ability to perform. Exercise is helpful in reducing some of these effects, but it does not totally alleviate the problems. Simple analgesics may be

sufficient in mild cases, but non-steroidal anti-inflammatory drugs are more effective as prostaglandin inhibitors, especially if begun just prior to the anticipated onset of symptoms. More complete control can be obtained by suppressing ovulation with hormones, such as oral contraceptives. These can be used to regulate the timing of the menstrual cycle to avoid major competitions as well as to control symptoms. Use of these agents has been shown to produce minimal if any weight gain and no changes in performance-related factors.

2.6.3 Body Types

Success as an athlete comes from a combination of athletic ability and our body build. The three components of body build are type, size and composition. A system, developed by W.H. Sheldon (c.1940), uses the terms ectomorph, endomorph, or mesomorph to describe the body type of an individual.

2.6.3.1 Endomorph

An endomorphic individual typically has short arms and legs and a large amount of mass on their frame. Their mass hampers their ability to compete in sports requiring high levels of agility or speed and perform sustained weight bearing aerobic activities such as running. Sports of pure strength, like power lifting, are perfect for an endomorph. They can gain weight easily and lose condition quickly if training stops.

Sports Benefits

- Size benefits sports such as rugby where bulk is useful, provided it can be moved powerfully
- Tend to have large lung capacity which can make them suited to sports such as rowing
- They can increase muscle mass much more easily than ectomorphs

2.6.3.2 Ectomorph

A predominantly ectomorphic individual is long, slender and thin, and therefore power and strength sports are perhaps not suitable as their slight build leaves them susceptible to injuries. While they can easily get lean and hard, their lack of musculature severely limits their chances in sports requiring mass. Ectomorphs dominate endurance sports and gymnastics. They can archive low levels of body fat which can be detrimental to health and for females in endurance sports it can result in a cessation of periods and iron deficiency.

Sports Benefits

- Light frame makes them suited for aerobic activity like gymnastics
- Smaller body surface area also enhances their suitability for endurance activity
- Their body is better at thermo regulation, important in endurance based sports

2.6.3.3 Mesomorph

A mesomorphic individual excels in strength, agility, and speed. Their medium structure and height, along with their tendency to gain muscle and strength easily makes them a strong candidate for a top athlete in any sport. They can sustain low body fat levels and find it easy to lose and gain weight.

Sports Benefits

- Respond well to cardiovascular and resistance training
- Can sustain low body fat levels
- All muscle groups can be used to derive positive training adoption
- Dependent on the sports' needs they can easily gain or lose weight

2.6.4 Healthy Diet

Diet, like the word 'nutrition', means all the food a person eats and drinks. Diet directly affects the performance and health of each athlete. Coaches should be aware that athletes' eating and drinking patterns will influence how well they can train and whether they are able to compete at their best. Coaches should work with athletes to develop healthy diets where they are individually aware of their personal nutritional goals and of how they can select the nutrition to meet these goals.

A well chosen diet offers many benefits to all athletes, regardless of event, gender, age or level of competition. These benefits include:

- ➢ Optimal gains from the training programme
- ➢ Enhanced recovery within and between training sessions and competitions
- ➢ Achievement and maintenance of an optimum body weight and physique
- ➢ A reduced risk of injury and illness
- ➢ Confidence in being well prepared for competition
- ➢ Enjoyment of food and social eating situations

Despite these advantages many athletes do not meet their nutritional goals. The reasons for this can include:

- ✓ Poor knowledge of foods and drinks
- ✓ Coaches having poor or outdated knowledge of sports nutrition
- ✓ Poor choices when buying food
- ✓ Inadequate cooking skills
- ✓ Inadequate finances
- ✓ A busy lifestyle leading to inadequate time to obtain, prepare or consume appropriate foods

- ✓ Poor availability of good food and drink choices
- ✓ Frequent travel
- ✓ Indiscriminate and incorrect use of supplements and sports foods

Nutrition and the Female Athlete

Female athletes have similar nutritional needs to male athletes but the minerals calcium and iron are particularly important in the diet of female athletes. We have seen that calcium is important for healthy bones and disruptions to the menstrual cycle may mean that the athlete is not absorbing sufficient calcium.

Healthy bones need a good supply of calcium and Vitamin D. Calcium can be provided by a well-chosen diet containing at least three servings a day of calcium-rich foods and it is recommended that women eat more calcium than men, even though they generally eat less food. Vitamin D is formed during well managed exposure to sunlight such as spending a small amount of time in the sun during the morning hours before putting on sunscreen. Any female athlete who has a disruption of the normal menstrual cycle could suffer irreversible damage to their bones and should be referred immediately to a medical expert for investigation.

Iron deficiency is a cause of fatigue and reduced performance for all athletes. Females are particularly at risk because of the increased iron requirements due to menstrual blood losses. Eating foods rich in iron will help to reduce this risk. Ideally, females should consume moderate servings of red meats in 3-5 meals each week. They may choose to eat iron-enriched foods such as enriched breakfast cereals. They may also combine plant and non-meat sources of iron with foods that help with the absorption of the iron such as vitamin C.

Routine use of iron supplements is not recommended for any athlete since too much is just as harmful as too little. Self-medication with iron supplements may not address the real problem that is causing fatigue or solve the cause of low iron levels.

Pre- and Post-Performance Nutrition

Energy levels in the body should be high before performing in either training or competition. The recommended athlete's diet shown earlier will normally supply this energy. But when should we eat and drink before exercise, and how much and what kinds of food are best? The meal itself will not produce higher performance but it can reduce performance. Eating a small amount of solid food immediately before competition is much better than eating too much. Each individual will be different in what works well for them, but in general:

- Eat a small, easily digested meal high in carbohydrate
- Eat about 2 to 3½ hours before competing

- Restrict fats and proteins since they are slowly digested
- Avoid foods which form gas in the digestive system
- Drink small amounts of water often, before and after competition, and during if it is a prolonged endurance competition or has several efforts in a single day such as in the Combined Events.

Recovery after a training session or competition is the beginning of the process of adaptation and becomes part of the preparation for the next training session or competition. Replacement of sweat losses is an essential part of this process. Both the water and salts lost in sweat must be quickly replaced. The athlete should aim to drink about 1.2 - 1.5 liters of fluid for every kg of weight lost in training or competition. If sweat loss is high then sports drinks containing sodium can be used, if no food is taken at this time.

It has been found that a small amount of high quality protein combined with carbohydrate helps the adaptation to training, if taken soon after the training session. Special sports foods such as sports bars and liquid meal supplements can provide a compact and convenient way to consume carbohydrate and protein when everyday foods are unavailable or are too bulky and impractical to consume. However, the additional cost of these products and the fact that they contain only a limited range of nutrients must be taken into account.

2.6.5 environmental factors

During an athlete's career numerous things happen which bring changes in her environment. In the early stages, the most common changes involve long, tiring journeys, sometimes combined with a stay for a number of days in an unfamiliar place. Later in the athlete's career, there are more serious changes to take note of, and to prepare for. There are three environmental conditions which an athlete will have to learn
how to acclimatize to, these are altitude, temperature and time change.

2.6.5.1 Altitude

At altitude, there is reduced air resistance, suggesting an advantage in activities involving speed, i.e. sprints. The force of gravity is reduced, suggesting an advantage where relative and maximum strength is critical. Some of the **immediate effects** of exposure to altitude are increased breathing rate, increased heart rate, giddiness, nausea, headache, sleeplessness and decrease in VO2 max. For every 300 meters above 1000 metresVO2max decreases by approximately 2.6%. The total effect of these adjustments is a reduction of work capacity.

The **long term effects** of continued exposure to altitude include are increased erythrocyte volume, increased hemoglobin volume and concentration, increased blood viscosity, increased capillarisation, continued lower V02max, decreased lactic acid tolerance and reduced stroke volume.

For **short term training at altitude**, the various benefits associated with it can be offset by other fundamental drawbacks such as are poor facilities, strange diet, different surroundings and homesickness. Benefits must be weighed against these limitations, plus those created by time change and problems in travelling to the training venue. On return from altitude training performances at sea level appear to peak between the 19th and 21st day and then again between 36 days and 48 days performance improves.

Data collected from a variety of elite endurance athletes from a variety of sports have shown that training at altitudes between 1.8km and 3km promotes improvement in endurance based activities made at sea level. At these altitudes, it can take an athlete up to three weeks to acclimatize. High altitude may result in a drop of your VO2max. The magnitude of this decline is approx. 5 to 7% per 1000 meters (Bernhard 1978). To overcome this effect a "live high train low" model was developed where athletes slept at an altitude of 2500 meters but trained at sea level.

2.6.5.2 Temperature

The ability to perform vigorous exercise for long periods is limited by hyperthermia (over heating) and loss of water and salt in sweating. Athletes should know the hazards of vigorous exercise in hot, humid conditions and should be able to recognize the early warning symptoms that precede heat injury. The circulatory system functions first to deliver nutrients to the working tissues and remove the waste products; and secondly to regulate the transfer of heat from active muscles to the body surface. It is because of this added demand on blood flow that body temperature regulation, and circulatory capacity, are significantly influenced by the environmental temperature and humidity. When performing in warm, humid conditions the circulation cannot both supply nutrients to muscle and regulate body temperature to the complete satisfaction of the body. As a result, the athlete's performance is impaired, and overheating becomes a serious problem.

Low levels of dehydration can influence performance and it is claimed that a loss of 2% body weight (1kg for a 50k athlete) can reduce performance by 10 to 20% (a 120 seconds 800

meters reduced to 132 to 144 seconds). Two factors influencing early fatigue and impaired performance in all types of sports are the depletion of the body's levels of carbohydrate and fluids. Athletes should consider the use of sports drinks to replace these.HEAT STROKE is one of the few potentially lethal complications of sport in a healthy individual.

2.6.5.3 Time

When we travel in an easterly or westerly direction, for every 15 degrees of longitude a time change of one hour occurs. The general effect of this time change is an upset to those body functions that are time-linked, e.g. sleeping, waking, eating, bowel and bladder functions. The body will gradually adjust and a minimum of one days stay for a one hours time change is regarded as a necessity. Air travel has an effect on the body. e.g. digestion upset, swelling feet and dehydration.

2.6.6 Psychological factors

It is as important for a coach to help individuals develop how they think, their mental skills, as it is to develop their physical skills. In this chapter you will be introduced to some of the factors that influence performance and how these factors may be controlled by the use of mental skills. This is a clearly psychological aspect of coaching, but it is also true that no part of coaching is without psychological aspects.

Once you gain an understanding of how you can apply and develop mental skills you will find that the benefits will extend far beyond the world of athletics. These skills are of great benefit to coaches and athletes in everyday life. Mental skills are not just a means of avoiding or recovering from disasters. They also play a very important part in organizing practice and training effectively so that things go correctly in the first place. Remember that no matter what labels you apply to this aspect of coaching, the most important part of the coach's responsibility is getting to know your athletes. You can't help them to think without knowing how and what they think.

Most athletes and coaches recognize that physical development alone is no guarantee of success in athletics. An athlete must have the correct frame of mind. Psychological preparation is as important as physical conditioning. Getting both right together is what creates an excellent or peak performance rather than an average performance. It is important to emphasize that everything in this chapter relates to anybody who wants to be better at what they do. These skills can help your athletes become better athletes, and can also help you to become a better coach.

When we talk of basic mental skills for athletes these can be summed up by the five 'Cs':

- Communication
- Commitment
- Control
- Confidence
- Concentration

2.6.7 Genetics

Athletic records are broken year after year, and the limits of human performance continue to be debated. Most physiologists agree that the current limits have to do with our genetics – specifically genes that regulate our cardiovascular endurance and muscle fiber type, but some factors are much more variable. Things like nutrition, motivation, environment and advances in equipment all allow for dramatic improvements in athletic performance.

Genetics and Sports Performance

Genetics shape us in many ways including our potential to excel in sports. Training, diet, and other factors play a large role in developing our potential, but our genes may also limit performance. You may have the genetic potential for being a champion athlete, but if you live a lifestyle of overeating and no exercise you are unlikely to achieve that potential. On the other hand, someone with limited genetic potential can find ways to compensate and become a solid performer.

Genetics have a large influence over strength, muscle size and muscle fiber composition (fast or slow twitch), anaerobic threshold (AT), lung capacity, flexibility, and, to some extent,endurance.

One major limitation for endurance athletes is cardiac capacity, or the heart's ability to deliver enough oxygen (via the bloodstream) to the working skeletal muscles. This, too, is largely determined by genetics.

The other limitation for endurance athletes is the ability of muscle tissue to effectively use oxygen and create ATP (adenosine triphosphate), the fuel that allows muscular contraction and movement. The efficiency of this process is measured by something called VO2 max (maximum volume of oxygen).

How Genetics Influence Response to Training

Your genes may also determine how your body responds to training, diet and other external factors. Research on aerobic endurance shows that some people respond more to training than

others. So even if you have a low genetic potential for endurance, you may respond well to training and develop your potential more completely than someone with genetic 'talent' who doesn't respond to training.

Training also increases cardiac efficiency, but the extent of this increase may depend upon genetics. Genetically gifted athletes will have a much greater response to training and will have a large increase in the number of mitochondria in cells. (The mitochondria are organelles in cells that produce the ATP, so the more mitochondria a person has, and the more efficient they are.)*176*

2.6.8 Resources

Material resources: these are the items you acquire to ensure effective and efficient administration practices in your organization. Even though sport in all countries is changing with times, but not uniformly for all. The gap in resources between wealthy and poorer countries is growing. Even once powerful nation states that strongly promoted sport have seen sport success erodes with decade. There is no question that the availability of quality facilities is necessary for proper training and where these do not exist, is becomes more difficult to excel.

Safe well designed equipment is important in prevention and although it is clearly event specific. Take time to ensure that and equipment is safe and fit for use every time you come to use it. Damaged of faulty equipment frequently are causes of injury.

Many different surfaces are encountered in athletics, some natural and other synthetic. Can cause problems. Whatever, the surface, be sure your athletes, choose the correct footwear to suit the conditions? Reduce the risk of injury by varying the surface for training when possible.

Clothing is very much as matter of personal choice, but must be chosen carefully. Nylon is often chapter than natural fiber, but is particularly had in hot climates and heat generating activities shoe design has advanced greatly and better, safer shoes are now available. Particular care is necessary, however, to select footwear appropriate to individual events and, especially, appropriate to the surface.

Facility resources: it is important to pay close attention to needs of athletes and coaches. This may sound self evident, but it is surprising how often sport administrators don’t find out exactly what athletes and coaches needed and want. Listed below are some of the typical

needs of coaches and athletes and coaches needed and want listed below are some of the typical needs of coaches and athletes.

Facilities needed by athletes are:

- Housing and foods close to training site
- Access to showers and transportation
- Access to appropriate educational opportunities
- Access to social, cultural, religious, and recreational opportunities other than sport
- Access to employment
- Community support, including that of the media

Facilities needed by coaches are:

- Access to sufficient resource personal such as assistants, managers, and medical specialists.
- Access to facilities and services for all, such as teaching and weight training areas and equipment.

Chapter three

Research Design and methodology

This chapter mainly focuses on method of the study, sources of data, data gathering instruments and sample size.

3.1 Method of the study

The researcher used both qualitative and quantitative research method.

3.2 Sources of data

The study used sources of data obtained from the three selected 1st division Athletics clubs organizations. The subject of the study were coaches and women Athletes of defense Athletics club, Ethiopian commercial bank Athletics club and prison Athletics club.

3.3 Data gathering instruments

The researcher used questionnaires and observation as data collection instruments.

3.3.1 Questionnaire

The researcher used questionnaire as a main data collection instrument because it is appropriate to collect information/ Data from a large population with out much constraint. It also helps to secure relevant information without bias. The questionnaire was employed by using both close ended and open ended questions.

Most of coaches in most Athletics clubs in Ethiopia are not well trained rather they are experienced and almost all athletes in most athletics clubs are uneducated or bellow grade 10 so the researcher prepared the questionnaire in Amharic for the respondents and then he translated in to English to make data analysis easy.

3.3.2 Observation

Observation session were conducted as it is a main supportive tool to gather information about the present status of women field events in some selected practical sessions(1 session for each club) by a means of checklist.

3.4 Sampling techniques and sample size

There are many 1st division Athletics clubs in Ethiopia since taking the entire population in each clubs were not be manageable the researcher used all women field events athletes(34) and all coaches(12) of shot putters, Javelin throwers; Discuss throwers, long Jumpers, Triple Jumpers and high Jumpers of Ethiopian commercial Bank Athletics club, Defense Athletics club and prison police Athletics club as a sample size for questionnaire. These clubs are considered because of their accessibility for the research.

CHAPTER FOUR

Analysis and Interpretation of Data

In this chapter, the data gathered through questionnaires and observation from coaches and Athletes are analyzed using percentage and descriptive statements.

4.1 Background Information

Based on the responses obtained from Athletes and coaches, background information's are analyzed in terms of their sex, age, marital status, educational status and discipline/event.

Table 1 Background Information of field Events athletes and coaches involved in the study.

No	Variables	Athletes			Coaches		
		Characteristics categories	Responses		Characteristics categories	Responses	
			No	Percentage		No	Percentage
1	Sex	Male	-	-	Male	10	83.33
		Female	34	100	Female	2	16.67
		Total	34	100	Total	12	100
2	Age	18-22	-	-	18-22	-	
		22-25	30	88.24	22-25	-	
		26-30	4	11.76	26-30	1	8.33
		31-35	-	-	31-35	4	33.33
		36-40	-	-	36-40	4	33.33
		40 above	-	-	Above 40	3	25
		Total	34	100	Total	12	100
3	Marital status	Married	6	17.65	Married	11	91.64
		Unmarried	26	76.47	Unmarried	1	8.33
		Divorced	2	5.88	Divorced	-	-
		Total	34	100	Total	12	100
4	Educational status	Grade 8 completed	18	52.94	Grade 8 completed	-	
		Grade 10 completed	14	41.18	Grade 10 completed	2	16.67
		Grade 12 completed	2	5.88	Grade 12 completed	3	25
		Certificate	-	-	Certificate	-	-
		Diploma	-	100	Diploma	6	50
		Degree	-	41.18	Degree	1	8.33
		Masters	-	58.82	Masters	-	-
		Total	34	100	Total	12	100
5	Types of discipline	Throwing	14	41.18	Throwing	6	50
		Jumping	20	58.82	Jumping	6	50
		Total	34	100	Total	12	100

As indicated in item no 1 of table 1; A breakdown of the study population, as the study is mainly focused on female athletes all 34(100%) are females. According to the responses of coaches 10 (83.33%) of the respondents are males and 2(19.67%) of the respondents are females. As we see from the responses the number of male coaches is greater than females. Even though females participation is increasing men's have consistently controlled the dominant governing bodies of sports and the negative attitude of the society for females participation in sport could be mentioned a factors for imbalance presence of women's coaches.

With respect to age group in item 2 of table 1; most of the Athletes 30(88.24%) are between 22 and 25 and some of the Athletes 4(11.76%) are between 26 and 30. This clearly shows that almost all of the athletes in this study are young athletes. When we see the responses of coaches, 1(8.33%) of respondent age is between 26 and 30, 4(33.33%) respondents age is between 31 and 35 and between 36 and 40 and 3(25%) of the respondents age is above 40. In view of this fact, the researcher deduces that the largest group of coaches are matured.

Regarding the marital status in item 3 of table 1; 6917.65%) of the respondents athletes are married, 26 (76.47%) of the respondents athletes are unmarried and 2(5.88%) of the respondent athletes are divorced. This shows that most of field events athletes are unmarried. Also 11 (91.67%) of the respondent coaches are married and 1 (8.33%) of the respondent coaches are married.

In addition, with regard to educational background in item no 4, 18 (52.94%) of the athletes respondents completed grade 8, 14(41.18%) of the respondents complited grade 10, 2(5.88%) of them complited grade 12,when we see the response of coaches2(16.67%) of coaches complited grade 10,3(25%) of them complited grade 12,6(50%) of them have diploma and 1(8.33%) of them has degree. From the data in the above table we can conclude that most of athletes are below grade 12 which indicates that they are less educated. Also coaches educational background shows that most of them don't have the requirements to be first division coaches

Finaly when we see the types of the discipline athletes train and coaches coach in item no 5 of table 1 20(58.82%) of athletes are jumpers and 14(41.18%) of athletes are throwers. 6(50%) of the coaches are jumping coaches and the other 6(50%) of them are throwing coaches. We can say that almost equally distribution of coaches for each discipline of field events occurred but also in our country Hammer throwing from throws and pole vault from jumps is not practiced.

From this notation, we can easily understand that new and too young field events athletes are not participating this shows that clubs has to do more work by selecting too young athletes which replace the current athletes.

4.2. Analysis and interpretation of Athletes response

The data gathered from Athletes is by distributing questionnaire for all (34) female field events Athletes in the selected 3 first division Athletics clubs in A.A. The questionnaire was classified into three parts. The first part is background information which is analyzed and interpreted in 4.1, the second part is questions related to training and the last part deals with factors affecting field events athletes. The questionnaire contains both close ended and open ended questions. Close ended questions are analyzed using percentage and open ended questions are analyzed using descriptive statements.

4.2.1. Analysis and Interpretation of questions related to training

Table 2 motivation of athletes to chose discipline

1. What motivates you to choose your discipline	No	Percentage
A. Role model	15	44.12
B. Coaches pressure	19	55.88
C. Economic benefits	-	-
Total	34	100

As indicated in item no 1 of the above table 2, 15(44.12%) of the respondents answered “role model” and 19(55.88%) of them answered “:coaches pressure”. This shows that most of field events athletes are selected by their coaches but also some of the athletes take role model for their specific discipline can join to be like her role model.

Table 3 - Ethiopia and field events

1. What is your general impression about field events in Ethiopia?	No	%
a. Excellent	-	
b. Good	3	8.82
c. Medium	29	85.2
d. Bad	2	5.88
Total	34	100
2. Do you think Ethiopian women are fit for field events?		
a. Yes	34	100
b. No	-	-
Total	34	100%

As depicted in the above table 3 for item No 1, 3(8.82%) of the respondents responded "Good", 29(85.30%) of them responded "medium" and 2(5.88%) of them responded "bad". This indicates that most of female field events athletes general impression about field events in Ethiopia is medium. For item No 2 all 34(100%) of the respondents think that Ethiopian women are fit for field events.

Table 4 - Menstruation and Females participation

1. Have you faced any problem related to menstruation?	No	%
a. Yes	25	73.33
b. No	9	26.47
Total	34	100
2. Do you work your training during the first three days of menstruation cycle?	No	%
a. Yes	15	44.12
b. No	19	55.88
Total	39	100
3. Do you think that pregnancy reduce female athletes performance?	No	%
a. Yes	7	20.59
b. No	27	79.41
Total	34	100
4. Do you think that attitude of the society affects females performance?	No	%
a. Yes	23	61.76
b. No	13	38.24
Total	34	100

As tables above indicated for item No 1, 25(73.53) of the athletes answered “yes” and a(26.47%) of them answered “no”. this shows that most female athletes faced problems related to menstruation but also the No of athletes which do not faced problems related to menstruation is not small. For item No 2 15(44.(2%) of the respondents answered “yes”, 19(55.88%) of them answered “no”. This data shows that most female athletes do not work their training during the first three days of menstruation cycle. For item no 3 7(20.59%) of the respondents responded “yes” and 27 (79.41%) of them responded “no”. this indicates that most female athletes don’t think that pregnancy reduces female athletes performance.

Pregnancy does not have to stop a female athlete from participating in physical activity, however, they do need to ensure that they follow some specific guidelines whilst exercising. For item No 4, 23(67.65%) of the respondents reply “yes” and 11(3233%) of them reply “no”. this shows that most female athletes think that attitude for women decreases the number of female participants in sports. One of the major factors for the development of females field events is the negative attitude of the society.

Table 5 - Interest of discipline

1. Do you like your discipline?	No	%
a. Yes	21	61.76
b. No	13	38.24
Total	34	100
2. Do you want to shift your discipline?	No	%
a. Yes	19	55.88
b. No	15	44.12
Total	34	100

As the above table 5 shows for item No 1 21(61.76%) of the respondents answered “yes” and 13(38.24%) of them answered ‘No’. for item No 2, 19(55.88%) of the respondents responded “yes” and 15(44.12%) of them responded “No”. this shows that most female athletes like their discipline they are participating and some of them don’t like their discipline because most of them are just needed to join it by their clubs. Clubs select unselected short distance athletes for jumping competitions. So most athletes need to shift their discipline to short and middle distance running. Even though there are athlete’s who wants to shift their discipline they are a lot of field events athletes who wants to be known athlete in their filed

Table 6 - Planning

Who plan training program?	No	%
a. Coaches only	28	82.35
b. Coaches and athletes	-	-
c. Coaches and administrators	6	17.65
Total	34	100

As indicated in the above table 6, 28(82.35%) of the respondents reply 'coaches only" and 6(17.65%) of them reply "coaches and administrators'. From this we can conclude that all clubs do not allow their athletes in planning the training program. As Peter J L Thomson says: "to be effective the coach and athletes decide. How much time is available for the training and then plan where they want to be at the end of that time." So this can reduce athlete's performance because sometimes athletes personal goal and club goal don't go together, this time the athlete decrease performance with short term effect or long term effect.

Table 7 - Training

1. Generally how do you see the training on your discipline	No	%
a. Excellent	-	-
b. V. good	7	20.59
c. Good	18	52.94
d. Poor	9	26.47
Total	34	100
2. Does the training related to your discipline?	No	%

a. Highly	26	76.47
b. Moderately	8	23.53
c. Lowly	-	-
Total	34	100

As shown in the above table 7 for tem No 1, 7(20.59%) of the respondent athletes answered "V.good', 18(52.94%) of them answered "Good" and 9(26.47%) of them answered "poor". For item No 2, 26(76.47%) of the respondent athletes responded "highly" and 8(23.53%) of them responded "moderately". From the above data we can say that Even though some athletes see their training as poor most of the athletes are satisfied by their training because it is related to their discipline.

Table 8 Coaches and training

1. How do you evaluate your coach	No	%
a. Excellent	-	
b. V.good	5	14.70
c. Good	11	32.36
d. Moderate	16	47.06
e. Poor	2	5.88
Total	34	100
2. Do you take feedback from your coach at the end of every training	No	%
a. Always	7	20.59
b. Sometimes	27	79.41
c. Seldom	-	-

d. Never	-	-
Total	34	100%
a. Yes	31	91.18
b. No	3	8.82
	34	100

As depicted in the above table 8, for item No 1, 5(14.70%) of the respondent athletes answered “v.good”, 11(32.36%) of them answered “good”, 16(47.06%) of them responded “moderate” and 2(5.88%) of them responded “poor”. This shows that athletes believe on the performance of their coach but also some athletes believe that coaches performance is moderate when they are asked their reason most of them said “our coaches don’t give emphasis for field events, mostly we athletes learn each other without the presence of coach”. For item No 2 27(79.41%) of the respondents reply “sometimes” and 7(20.59%) of them reply “always”.

This indicates that most athletes don’t take feedback from their coaches at the end of every training because one coach trains many athletes with different disciplines. Mostly coaches give emphasis for track events. For item No 3 13(38.24%) of the respondents answered “yes” and 21(61.76%) of them answered “no”. This shows that athletes don’t participate in evaluating the effectiveness of their training programs. For item no 4 31(91.18%) of the respondents reply “yes” and 3(8.82%) of them reply “No”. this indicates that almost all athletes treated by their coaches equally. Generally the small No of coaches in clubs and the absence of coaches specialized on field events affects the development of field events in Ethiopia.

Table 9 – Facility and Nutrition

1. Do you think your club has all the necessary facilities to make your training effective?	No	%
a. Yes	19	55.88
b. No	15	44.12

Total	34	-
2. Does your club provide sufficient and balanced diet after, before and during training?	No	%
a. Yes	21	61.76
b. No	13	38.24
Total	34	100

As indicated in the above table 9 for item No 1, 19(55.88%) of the respondents responded "yes" and 15(44.12%) of them responded "No". for item no 2, 21(61.76%) of them answered "yes" and 13(38.24%) of them answered "No". this shows that clubs provide the necessary facilities and sufficient and balanced diet to make athletes training effective but also some athletes reported that clubs don't provide everything.

4.2.2. Analysis and interpretation of Factors Affecting field Events

Table 10 factors affecting Field events

No	Major factors	Responses	No	Percent
1	Lack of qualified coaches	5=strongly agree	13	38.24
		4=agree	15	44.12
		3=neutral	6	17.65
		2=disagree	-	-
		1=strongly disagree	-	-
		Total	34	100
2	Lack of well designed training	5	-	-
		4	19	55.88
		3	10	29.41
		2	5	14.70
		1	-	-
		Total	34	100
3	Lack of proper supervision	5	-	-
		4	7	20.59
		3	14	41.18
		2	13	38.24
		1	-	-
		Total	34	100
4	Lack of sufficient incentive	5	29	85.30
		4	5	14.70
		3	-	-
		2	-	-
		1	-	-
		Total	34	100

5	Lack of adequate diet	5	27	79.41
		4	7	20.59
		3	-	-
		2	-	-
		1	-	-
		Total	34	100
6	Lack of adequate facilities	5	22	64.71
		4	6	17.65
		3	5	14.70
		2	1	2.94
		1	-	-
		Total	34	100
7	Lack of communication	5	3	8.82
		4	11	32.35
		3	7	20.59
		2	13	38.24
		1	-	-
		Total	34	100
8	Personal problems	5	-	
		4	8	23.53
		3	16	47.06
		2	8	23.53
		1	2	5.88
		Total	34	100
9	Environmental factors	5	9	26.47
		4	17	50
		3	7	20.59
		2	1	2.94
		1	-	-
		Total	34	100
10	Nature of training	5	6	17.65
		4	23	67.65
		3	4	11.77
		2	1	2.94
		1	-	-
		Total	34	100

From the above table, for item no 1, 13(38.24%) of the respondents “strongly agree’, 15(44.12%) of them respond “agree” and 6(17.65%) of them answered “neutral”. This shows that lack of qualified coaches in field events affects the development of field events in our country. For item No 2 19(55.88%) of the respondents answered “agree”, 10(29.41%) of them answered “neutral” and 5(14.70%) of them answered “disagree” this shows that most of athletes agree that lack of well designed training can affect field events development. For item No 3, 7(20.59%) of the respondents answered “agree”, 14(41.18%) of them respond “neutral” and 13(38.24%0 of them answered “disagree’. This indicates that most athletes do not faced problems regarding lack of proper supervision

For item no 4, 29(85.30%) of the respondents answered “strongly agree” and 5(14.70%) of them respond “agree”. We can say that almost all athletes believe that lack of sufficient incentive can affect athlete’s performance. For item no 5, 27(79.41%) of the respondents answered “strongly agree” and 7(20.59%) of them answered “agree”. This indicates that diet has a great effect on the development of field events. Every athlete needs to eat adequate diet to obtain energy to complete their daily tasks and their training and also they have to keep pace with their body’s metabolism.

For item no 6, 22(64.71%) of the respondents answered “strongly agree”, 6(17.65%) of them respond “agree”, 5(14.70%) of them respond “neutral” and 1(2.94%) of them answered “disagree”. Almost all athletes agree that lack of adequate facilities affect the development of field events. From this we can conclude that clubs have to supply adequate facilities for their coaches and athletes. For item No 7 3(8.82%) of the respondents answered “strongly agree”, 11(32.35%) answered “agree” 7(20.59%) of them replied “neutral”, and 13(38.24%) of them respond “disagree”. This shows that some athletes believe that lack of communication affects athlete’s performance and also some athletes believe that personal problems do not affect the development of field events so much”. But as Peter J L Thompson stated “one of the five basic skills of coaching is building and developing relationships.” For item No 8 8(23.53%) of the respondents responded “agree”, 16(47.06%) of them responded “neutral”, 8(23.53%) of them responded “disagree” and 2(5.885) of them responded “strongly disagree.” This indicates that even though some athletes believe that personal factors can not affect athletes performance and some of them are neutral but most of them do not believe that personal factors can not affect performance because they believe that it can be solved if the athletes talk with their peers or coaches. For item No 9 9(26.47%) of the respondents answered “strongly agree”, 17(50%) of them respond “agree”,7(20.59%) of them answered “neutral” and 1(2.94%) of them responded “disagree”. This indicates that almost all athletes agree that environmental factors have a great effect for athletes. The body continually responds to the demands made on it by the individual and by the environment in an attempt to maintain a stable internal environment.

For item no 10. 6(17.65%) of the respondents answered “strongly agree”, 23(67.65%) of them responded “agree”, 4(11.77%) of them responded “neutral” and 1(2.94%) of them responded “disagree”. From this we can say that almost all athletes believe that nature of the training can be a factor for the development of athletes performance.

when athletes answered for the open ended question which ask them to give order form the most affecting factor to the least affecting factor most of them rank; lack of sufficient and balanced diet, lack of incentive, nature of the training, lack of qualified coaches and lack of adequate facilities as the most affecting factors. We can conclude that; lack of sufficient and balanced diet is the most affecting factor for the development of athletes. In conformity to this, peter JL Thompson (2009) said that "Diet directly affects the performance and health of each athlete. Coaches should be aware that athletes' eating and drinking
patterns will influence how well they can train and whether they are able to competent their best".

Secondly they take lack of incentive is the most hindering factor. Providing incentive is and external stimulation which arose and direct our behavior. To enhance the external drives of athletes to participate and to perform well, motivational role could be well recognized. Thirdly athletes rank mature of the training as the most hindering factor. Fourthly lack of qualified coaches is taken as another major affecting factor. Fifthly, athletes consider lack of adequate facilities as the most hindering factor.

4.3 Analysis and interpretation of Coaches

The data gathered from coaches is by distributing questionnaire for 12 coaches in 3 first division athletics clubs in A.A. The questionnaire was classified into three parts. The first part is background information which is analyzed and interpreted in 4.1, the second part is questions related to training and the last part deals with factors affecting field events athletes. The questionnaire contains both close ended and open ended questions. Close ended questions are analyzed using percentage and open ended questions are analyzed using descriptive statements.

4.3.1. Analysis of Questions related to training

Table 11. Criteria to be selected by your club

Criteria	No	Percentage
Athletes	2	16.67
Athletes physical appearance	7	58.33

Athletes victory in competition	3	25
Total	12	100%

As depicted in the above table 11, 2(16.67%) of the respondents answered 'Athletes interest", 7(58.33%) of the respondents answered "Athletes physical appearance" and 3(25%) of them answered "Athletes victory in competition". This shows that most of the clubs select their athletes by their physical appearance.

Table 12. How do you choose your discipline?

Reasons	No	Percentage
Role model	5	41.67
Economic benefit	2	16.67
Assigned by club administrators	5	41.67
Total	12	100%

As table 12 shows 5(41.67%) of the respondents answered "Role model" and "Assigned by club administrators" and 2(16.67%) of them answered "Economic Benefits". This indicates that most coaches are forced to catch field events athletes by the administrators because of shortage of coaches in the club. Most of the time one coach can train many athletes from different discipline. Especially most short distance coaches are also field events coach. This may affect performance of athletes.

Table 13 Interest of discipline

1. Do you like your discipline	No	Percent
Yes	11	91.67
No	1	8.33
Total	12	100%
2.Do you want to shift your discipline		
Yes	5	41.67
No	7	58.33
Total	12	100%

The table above revealed that for item No 1, 11(91.67%) of the respondents answered “yes” and 1(8.33%) of the them answered ‘no” shows that almost all coaches of field events like their discipline they are coaching. For item No 2 5 (41.67%) of the respondents answered ‘yes’ and 7(58.33%0 of them answered “no”. this indicates that most of field events coach do not want to shift their discipline but also some of the coaches want to shift their discipline. When they are answered their reasons almost all of them answered because our country is not well known in field events. These coaches want to shift their discipline and be famous coaches in the world by coaching the known discipline like long distance.

Table 14. Ethiopia and field events

1. What is your female impression about field events in Ethiopia	No	%
Excellent	-	
Good	2	16.67
Medium	9	75
Bad	1	8.33
Total	12	100%
2. Do you think Ethiopian women are fit for field events		
Yes	12	100
No		-
Total	12	100

As the table above shows that for item no 1, 2(16.67%) of the respondents answered “Good”, 9(75%) of them answered “medium” and 1(8.33) of them answered “Bad”. This indicates that most of coaches general impression about field events in Ethiopia is medium. For item no 2, all coaches 12 (100%)said that Ethiopian women are fit for field events. As history tells us females participation in sports is increasing. As our female long and middle distance runners are known our female field events athletes can have good result if we work hard on field events.

Table 15 Menstruation and Females participation

1.Have you faced any problem related to menstruation	No	%

Yes	8	66.67
No	4	33.33
Total	12	100%
2.Does Athletes work their training during the 1st 3 days of menstruation cycle.		
Yes	3	25
No	9	75
Total	12	100
3.Do you think that pregnancy reduce female athletes performance?	No	%
Yes	5	41.67
No	7	58.83
Total	12	100%
4.Does the attitude of the society affect performance.		
Yes	7	58.83
No	5	41.67
Total	12	100%

The above table 15 states that, for item No 1 8(66.67%) of the respondents respond ‘yes” and 4933.33%) of them respond. “No”. This indicates that most of coaches faced problems related to menstruation field events. For item no 2 3(25%0 of the respondents answered ‘yes” and 9(75%) of them answered “no”. for this we can say that most of the female athletes don’t work their training during the first 3 days of menstruation cycle. As they answered in their reason. “it depends on the individual’. Some athletes feel pain during menstruation period for 3 days or more and some others feel discomfort only for 1 day or 2 days. So female athletes can miss 1 or more training session and this can affect their performance. For item (53.83%) of them respond “No”. This shows that most coaches believe that pregnancy don’t reduce female athletes performance. For item no 4, 7(58.83%) of the respondents respond “yes” and 5941.67%0 of them respond “No”. This indicates that attitude of the society for females participation in sport affects their performance and also it reduces the participation of females.

Generally we can conclude that Ethiopian females can have good result in continental and international competitions as the other fields.

Table 16 Planning

1. Who plan the training program	No	%
Coaches only	8	66.67
Coaches Athletes	-	-
Coaches Administrators	4	33.33
Total	12	100
Did athletes participate in planning		
Always	-	
Sometimes	1	8.33
Seldom	5	41.67
Never	6	50
Total	12	100
2. Do you evaluate the effectiveness of annual program unit your Athletes adm?		
Yes		
No		
Total		

From the respondents in the table above for item no 1, 8(66.67%) of them answered "coaches only" and 4(33.33%) of them "answered coaches and administrators," and for item No 2 1(8.33%) of them answered "sometimes," 5 (41.67%) of them answered "seldom" and 6(50%) of them answered "Never". In general we can conclude that almost all coaches and administrators do not allow their athletes to participate in planning. As athletes have to participate on planning because they may have their personal goal and their personal goals can be obtained /achieved if they participate on planning.

Table 17 Training

1. Motivation of athletes during training	No	%
A. Excellent	2	16.67

B. V.good	3	25
C. Fair	5	41.67
D. Poor	2	16.67
Total	12	100
2. Do you classify athletes according to their chronological and level of training age?	No	%
Yes	12	100
No	-	-
Total	12	100
3. Do you give feedback at the end of every training		
Always	9	75
Sometimes	3	25
Seldom	-	-
Never	-	-
Total	12	100

As depicted in the above table 17, for item No 1, 2916.67%) of the respondents answered “Excellent’, 3(25%) of them respond. “very good’, 5(41.67%0 of them respond “Fair” and 2(16.67%) of them respond “poor”. This shows that motivation of athletes on training time is good but also athletes selected from short distance running for jumping competitions have less motivation for the training and this affects the development of field events in our country. For item no 2 all coaches 12(100%0 used classification of athletes according to athletes chronological age and level of training age. For item No 3 9(75%) of the respondents answered “Always” and 3925%) of them respond “sometimes’. This indicates that most of the time almost all coaches give feedback for their athletes at the end of training but also as I see in my observation all coaches give feedback simply for all athletes without selecting and this means that coaches lose one of the best coaching skill which is giving feedback.

Table 18 Nutrition

Does your club provide sufficient and balanced diet?	No	%
a. Yes	10	83.33
b. No	2	16.67
Total	12	100

As the above table indicated, 10(83.33%) of the respondents answered “yes” and 2(16.67%0 of them answered “no”. this shows that almost all clubs provide sufficient and balanced diet during, before and after training.

Table 19 Facility

Does your club provide all the necessary facilities?	No	%
a. Yes	5	41.67
b. Fair	7	58.33
c. No	-	-
Total	12	100

As the above table 19 shows 5(41.67%) of the respondents answered “yes” and 7958.33%) of them answered fair. This indicates that most of clubs provide facilities to make the athletes effective but also it is no sufficient. It is important to pay close attention to needs of athletes and coaches.

4.3.2 Analysis and interpretation of Factors Affecting field Events response by coaches

Table 20 Factors affecting Field events in the response of coaches

No	Major factors	Responses	No	Percent
1	Lack of qualified coaches	5=strongly agree	9	75
		4=agree	2	16.67
		3=neutral	1	8.33
		2=disagree	-	-
		1=strongly disagree	-	-
		Total	12	100
2	Lack of well designed training	5	8	66.67
		4	4	33.33
		3	-	-
		2	-	-
		1	-	-
		Total	12	100
3	Lack of proper supervision	5	-	-
		4	2	16.67
		3	6	50
		2	4	33.33
		1	-	-
		Total	12	100
4	Lack of sufficient incentive	5		
		4	2	16.67
		3	5	41.67
		2	5	41.67
		1	-	-
		Total	12	100
5	Lack of adequate diet	5	9	75
		4	3	25
		3	-	-
		2	-	-
		1	-	-
		Total	12	100
6	Lack of adequate facilities	5	7	58.33
		4	3	25
		3	2	16.67
		2	-	-
		1	-	-
		Total	12	100
7	Lack of communication	5	-	-
		4	-	-
		3	4	33.33
		2	6	50
		1	2	6.67
		Total	12	100
8	Personal problems	5	-	
		4	2	16.67

		3	3	25
		2	5	91.67
		1	2	16.67
		Total	12	100
9	Environmental factors	5	7	58.33
		4	2	16.67
		3	2	16.67
		2	1	8.33
		1	-	-
		Total	12	100
10	Nature of training	5	4	33.33
		4	3	25
		3	5	41.67
		2	-	-
		1	-	-
		Total	12	100

From the above table, for item no 1, 9(75%0 of the respondents “strongly agree’, 2(16.67%) of them respond “agree” and 1(8.33%) of them answered “neutral”. This shows that lack of qualified coaches in field events affects the development of field events in our country. For item No 2 8(66.67%) of the respondents answered “strongly agree” and 4(33.33%) of them answered ‘agree’ this shows that almost all coaches strongly agree that lack of well designed training can affect field events development. For item No 3 2(16.67%) of the respondents answered “agree’, 6(50%) of them respond “neutral” and 4 (33.33%0 of them answered “disagree’. This indicates that most coaches do not faced problems regarding lack of proper supervision so they said that even though it has some effect lack of proper supervision could not affect the development of field events that much.

For item no 4, 2(16.67%) of the respondents answered “agree”, 5(41.67%) of them respond “neutral” and “disagree” respectively. We can say that some coaches take lack of sufficient incentive as a factor and some coaches declare that it doesn’t play so much for the development of Athletes. For item no 5, 9(75%) of the respondents answered “strongly agree” and 3(25%) of them answered “agree”. This indicates that almost diet has a great effect on the development of field events. Every athlete need to eat adequate diet to obtain energy to complete their daily tasks and their training and also they have to keep pace with their body’s metabolism.

For item no 6, 7958.33% of the respondents answered “strongly agree”, 3 (25%) of them respond “agree” and 2(16.67%) of them respond “neutral”. Almost all coaches agree that lack of adequate facilities affect the development of field events. From this we can conclude that clubs have to supply adequate facilities for their coaches and athletes. For item No 7 4(33.33%) of the respondents answered “neutral”, 6(50%) of them respond “disagree” and

2(16.67%) of them answered “strongly disagree”. we can say that most coaches do not believe that lack of communication can affect athletes performance that much but as Peter J L Thompson stated “one of the five basic skills of coaching is building and developing relationships.” This shows that most conches believe that personal problems do not affect the development of field events so much because they believe that it can be solved if the athletes talk with their peers or coaches. For item No 9 7(58.33%) of the respondents answered “strongly agree” (16.67%) of them respond “agree” “neutral” respectively. This indicates that most coaches agree environmental factors has a great effect for the development of field events. The body continually respond to the demands made on it by the individual and by the environment in an attempt to maintain a stable internal environment.

For item no 10. 4933.33%0 of the respondents answered “strongly agree”, 3(25%) of them responded “agree’ and the remaining 5(41.67%0 of them responded “neutral”. From this we can say that most coaches believe that nature of the training can be a factor for the development of field events.

Coaches were asked to rank the factors form the most affecting factor to the least affecting factor most caches rank. Lack of sufficient and balanced duct,, lack of well designed program, lack of qualified coaches, lack of adequate facilities and environmental factors as the most affecting factors. From this we can say that lack of sufficient and balanced diet, Secondly, coaches take lack of overdesigned program as the most hindering factor. Thirdly, caches consider lack of qualified coaches as the other affecting factor. Most coaches select lack of adequate facilities and then environmental factors as forth and fifths hindering factor.

4.4. Analysis and interpretation of observation

During my first observation in each clubs first I show m latter which was written by A.A.U, sport science department head. 1st I go to defense sport club. Defense sport club office is located around 5 kilo. Near the clack of national museum. The gate door was kept by a keeper, he asked me what I want and I told him what in need form their club but he didn’t allow we to get inside instead he called the club administrator; he is young and looks good man. After he saw me he allowed me to get in to his office. Before I gate inside I tried to see my surrounding many athletes sit in group to listen radio and some athletes were listening the sound came out of their friend “kirare.” The administrator office was narrow and sophisticated. Then he asked me what I want and I told him 1st, want to observe two training sessions then I will come with questioners which will be filled by coaches and athletes of field events. He said that “ if I know that you are from A.A.U I will not allow to get in

because every student comes to make his/her research because we are near A.A.U, but for now u will get what u want." Then he gave me athletes' number and their training fine and venue. It was at the afternoon at A.A.U stadium. Female and male throwers were practicing together but the jumpers were at the morning shift. When I tried to saw whether a coach was there or not they don't have a coach. I asked one of the throwers where is the coach? He answered me that. "Most of the times we work by over selves for today the coach don't come." I wait unit they finish and went to my home. In the second day I wake up early in the morning and went to A.A.U stadium to watch jumpers training.

The jamming athletes were small in number and they have their own coach. But in only saw long and triple jump during practice. Asked one of the athletes why their number is small and he replied that "some of long jumpers will be selected form short distance that's why we are small". My plan was to visit two raining sessions but because of shortage of time I only observe one training session. Then I distributed my questionnaire to female athletes and coaches and the administrator collect for me at the second day.

Secondly, I go to prison police sport club. There office is located around Gerji mebrat haile, at the building named as 'alem gebre building'. The entrance door has serious security. The offices were for all prison police organization. It was not organized well because they came form around adisu gebeya soon. The offices were not closed by anything officers seen each other. I go to the administrator he was such a caring person. I told him that I wan to see a training session and to distribute questioners for female athletes and coaches. My observation in training sessions was almost the same as defense and bankoche sport clubs.

Lastly I go to Ethiopia bankoche sport club office. It is located around 4 kilo at the building of 'selasie church'. Their office is in the second floor. It is the most organized and net office forms the other two clubs and also I saw a secretary in that office. I did everything I did in the above clubs to collect my observational data.

To make the training more effective it is necessary to have appropriate infrastructures, equipments and facilities which facilitate the training program at large.

Table 21 check list for the availability of Facilities and equipments

* The researcher Rate the availability of facilities in the selected clubs by putting "√" mark on the given alternative.

No	Facilities	Available	Partially Available	Not Available	Remark
1	Dormitories		√		
2	Clean toilet, shower and clean drinking water	√			
3	Recreational center		√		
4	Clinic	√			Rental
5	Sport wear	√			
6	Gymnasium		√		Rental
7.	Transportation	√			
8	Sports suits			√	
9	Designed clothing room			√	
	Equipments	Available	Partially available	Not Available	
1	Javelin		√		
2	Shot put		√		
3	Discuss		√		
4	hammer			√	
5	High Jump mat		√		Rental
6	pole vault mat			√	
7.	Meters	√			
8	Bars for high Jump		√		Rental
9	Bars for pole vault			√	

- As shown in the above table 21, Even though clubs have the necessary equipments and facilities it is not enough to facilitate the overall athletics training as a first division athletics clubs. Some of them are rented but one club has to fulfill these things as athletics clubs. So stake holders have to play their part to push clubs to fulfill all the necessary facilitates and equipments.

Chapter five

Summary, Conclusion and Recommendation

In this topic Summary, Conclusion and Recommendation are presented

5.1 Summary

The purpose of the study was to investigate the present status and predict future perspective of women's field events in A.A first division athletics clubs.

The researcher hopes that the result of the study are important for the following major reasons .

- To give valuable feedback about the problem of field events for concerned bodies.
- To investigate the problems of field events.
- To explore factors affecting women's field events.
- To provide clue for future researchers in field events broadly.

The study was delimited to women athletes and coaches of three selected first division Athletics clubs which are found in A.A, because of resource, time, money and other constraints.

Chapter two discusses some literatures written by many authors. it includes History of track and field, List of track and field events, Field events, Field events rules, Training Principles, coaching roles and skills, developing a plan and factors which affect women athletes

There are many 1st division Athletics clubs in Ethiopia since taking the entire population in each clubs were not be manageable the researcher used all women athletes(34) and all coaches(12) of the selected 3 first division athletics clubs.

Chapter four deals with the data gathered through questionnaires and observation from coaches and Athletes analyzed using percentage and descriptive statements. Finally, based on the review of related literatures and the analyzed data the following major findings were obtained from the study.

❖ The study revealed that most of field events athletes are selected by their coaches but also some of the athletes take role model.

❖ It is reported that all female athletes and coaches of field events think that Ethiopian women's are fit for field events.

❖ Even though there are athlete's who wants to shift their discipline there are a lot of field events athletes who wants to be known athlete in their filed

❖ All clubs do not allow their athletes in planning the training program. So this can reduce athlete's performance because sometimes athlete's personal goal and club goal don't go together, this time the athlete decrease performance with short term effect or long term effect.

❖ As the study shows we can say that Even though some athletes see their training as poor most of the athletes are satisfied by their training because it is related to their discipline.

❖ It was admitted by both athletes and coaches that most athletes don't take feedback from their coaches at the end of every training because one coach trains many athletes with different disciplines and also Mostly coaches give emphasis for track events. Generally the small No of coaches in clubs and the absence of coaches specialized on field events affects the development of field events in Ethiopia.

❖ clubs provide the necessary facilities and sufficient and balanced diet to make athletes training effective but also some athletes reported that clubs don't provide everything which means it is not sufficient, it needs improvement.

❖ when athletes answered for the open ended question which ask them to give order form the most affecting factor to the least affecting factor most of them rank; lack of sufficient and balanced diet, lack of incentive, venture of the training, lack of qualified coaches and lack of adequate facilities as the most affecting factors.

❖ Coaches were asked to rank the factors form the most affecting factor to the least affecting factor most caches rank. Lack of sufficient and balanced diet, lack of well designed program, lack of qualified coaches, lack of adequate facilities and environmental factors as the most affecting factors. From this we can say that lack of sufficient and balanced diet, secondly, coaches take lack of overdesigned program as the most hindering factor. Thirdly, caches consider lack of qualified coaches as the other affecting factor. Most coaches select lack of adequate facilities and then environmental factors as forth and fifths hindering factor.

5.2 Conclusion

Based on the preceding findings, Ethiopian field event training is not well developed. Athletes of each clubs are younger but also near to be matured but Those clubs do not have projects for field events athletes.

As the study shows there is no coach which specialized on field events and also the number of caches is small compared to the large number of Athletes. The extent to which properly trained and qualified caches are assigned to train can contribute. Much for the development of field events.

Although considerable efforts have been made to provide facilities and equipments fro field events, most of the facilities and equipments are inadequate.

As the study revealed negative attitude of the society for females in the society reduces the number of female participants on the sports specially field events in Ethiopia is not taken as one part of athletics. So stake holders have to take their part to give education and to show how field events are lovely athletics competitions are.

As the study shows field events athletes interest have to be considered. Athletes were selected for jumping especially in national competitions form unselected short distance clubs athletes. With out the interest of athletes we can't think about the development of field events.

Clubs mostly provide sufficient and balanced diet but also sport drinks have their own contribution in the refueling of athletes so clubs have to provide enough sport drinks.

Most athletes and coaches rank; lack of sufficient and balanced diet, lack of incentive, venture of the training, lack of qualified coaches, lack of well designed program and lack of adequate facilities as the most affecting factors.

5.3 Recommendations

Based on the findings and conclusions made the researcher suggest the following recommendations.

Athletics clubs have to have projects which feed the main athletes clubs by training starting form kids athletics stage to performance level. In addition educational status of athletes and coaches is not adequate so clubs have to play their part by dealing with the stake holders of athletics to give trainings and allow coaches and athletes to learn in the evening classes.

Clubs have to stop selecting jumping competitors form short distance Running near to competition period. Instead clubs have to train kids for their main athletics clubs or they have to hire new project trainers.

Most club female athletes' do not work their training during their menstruation time at all. So clubs have to educate athletes that during menstruation period athletes can exercise except flexibility exercise. In addition clubs, stake holders and every one concerned to sports together have to educate the society that females can be effective in track and field events.

In Ethiopian first division athletics clubs almost all are considering training plan as a coach's only work But the main concerned bodies about the training are athletes so clubs have to allow participations of athletes in planning.

During coaches give feedback they make the feedback general because of the large number of athletes. So concerned bodies have to push clubs to hire more coaches.

Regarding to facilities and equipment and diet the study shows clubs provide facilities and equipments partially. So clubs have to fulfill the basic facilities and equipment of and have to provide sufficient and balanced diet which helps for the development of Athletes' performance. In addition clubs are not motivating athletes well. So clubs have to provide incentives for their athletes.

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