

**THE CAUSE OF DECLINE THE RESULT OF 5000M AND  
10000M OF ETHIOPIA AT WORLD CHAMPIONSHIP AND  
OLYMPIC GAMES IN THEREFERENCE OF NATIONAL TEAM  
ATHLETES**

**BY  
TESFAYE NEGEWO GEMEDA**

**JUNE, 2016  
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**TESFAYE NEGEWO**

**(The Researcher)**

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## **ACRONYMS**

|      |   |
|------|---|
| AAAF | Addis Ababa Athletics Federation                  |
| AIS  | Asia institute of sport                           |
| EAF  | Ethiopian Athletics Federation                    |
| FTEM | Foundation, Talent, Elite and Mastery             |
| IAAF | International Association of Athletics Federation |
| IOC  | International Olympic Committee                   |
| IT   | Talent Transfer                                   |
| LTAD | Long Term Athletics Development                   |
| TID  | Talent Identification                             |
| VIS  | Victory institute of sport                        |

## ABSTRACT

*The purpose of this study is to examine the cause of decline result of Ethiopia at world championship and Olympic Games. The study involved sixty one athletes, tree coaches and one technical director of athletics federation. The major instruments in this study were questionnaire, interview, and field observation. The questionnaires were administered for both athletes and the coach of national team. The questionnaire contained 20 items for athletes, and 14 items for the coach to consolidate the information obtained from the questionnaire, structured interview was conducted with technical directors of Ethiopian athletics federation and field observation was carried out by researcher. A key finding related to among the cause of decline the result of Ethiopia at world championship and Olympic Games. There are good athletes and coach's interpersonal relationship, the majority of athletes responded that there is a mutual respect in between. There was less access of competition at national team. Most athletes change their events and give emphasis for road race. There were no well-organized supervision and follow up of athletics federation at training site. Training track at Addis Ababa stadium was not suitable for training. Most athletes of national team long distance were not attend the training regularly. The effect of training at national team was well improving the performance of athletes. There is no nutrition expert at national team. To overcome these problems the following recommendations have been for warded. Athletics federation should make open discussion with athletes why they aren't following the training regularly. Also must create wide opportunity for them not to change their events to road race. Athletics federation must provide nutrition expert for national team. Some repair should be needed for training track to make safe and comfortable. Equal chances of being selected must respected and appropriate and fair selection should be followed. More access of competition should be prepared for athletes of 5000m&10000m b/c the number of competition on track has been decreasing. Appropriate incentive should prepare for athletes of national teams of long distance. Athletics federation must make regular follow up and supervision for athletes of national team.*

**Key words:** - Athletics, Championship, Decline, Federation, National team, Olympic.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background**

Athletics is a sport comprising Various Competitive athletic contests on the activities. Athletics is broadly divided in to two categories track and field events. (Johnken Doheraty 4th ed. (1985) track events include-short distance, middle distance and long distance event. Whereas the field events are jumping like high jump, triple, pole vault jump, long jump and throwing events such as javelin, discus, shotput and hammer. The first modern Olympic Games took place in 1896 and athletics were part of the games with the competition being divided in to track and field event.

In 1928 further progressions were made when women were allowed to take part in athletics competitions for the first time. An international governing body of athletics that is, the international association of athletics Federation (IAAF), was established in 1912 which develop a number of international standards and rules Ethiopia participated in modern Olympic game at Melbourne during in 1956 in athletics, booking, and cycling. It was the first time to Ethiopia to join the Olympic history and was a spring board for next Olympic game for the country. Sport training involves many subjects, but most importantly the athlete and the coach are the most important individuals in the way of sport training the overall activity of the sport training is in the coach, athletes and in the administer, which can be worked out for better change. Coaching is an organized provision of assistance to an individual athlete or group of athletes in order to help them to develop and improve.

### **Athletics in Ethiopia**

Ethiopia has enjoyed a rich tradition of producing some of the world's fastest distance runners over past decades. The country has had a healthy rivalry with East African neighbors Kenya and this has spurred each nation on to achieve quicker times on both and track and road. Abebe Bikila was the star of marathon running during the 1960s, winning gold at the 1960 and 1964 Olympics and setting a World Record at the latter Games (2:12:11).

## **Magical Moment**

When Kenenisa Bekele broke his own 10,000m World Record in Brussels in August 2005 at the Golden League meeting, it was one of the performances that will stick in the memories of all those present for many years. His 26:17.53 winning time has not been approached by anyone ever since. In fact the closest any runner has come since was Micah Kogo's 26:35.63 - a full 18 seconds drift of Kenenisa's mark.

## **Current Stars**

Haile Gebrselassie and Kenenisa Bekele can rightly claim to be the dominant forces in global distance running over the last decade - particularly on the track, where they hold the all-time fastest times over both 5000m and 10,000m. Meseret Defar is in her racing prime and has been World and Olympic 5000m Champion as well as being in the exclusive sub-30-minute club for the 10,000m having run 29:59.20. Tsegay Kebede epitomizes consistency in the marathon and rarely runs a poor race, always being around the 2:05 - 2:06 mark. Tirunesh Dibaba won double gold in Beijing over 5000m/10,000m and is one of the world's greatest distance runners in history, holding the current 5000m World Record at a staggering 14:11.15. She took Olympic gold over 10,000m at the 2012 Olympics. [athleticsworld.co.uk/](http://athleticsworld.co.uk/)

As my current information about 5000m & 10000m result in world championship and Olympic game it became declining. So, by gathering different data I will try to dig out the problems and challenges of 5000m & 10000m athletes of national team.

### **1.2. Statement of the Problem**

Athletics is a dynamic sport that is competed in a constant changing environment. There are a number of inherent features to sport that make athletics very unique beside this change, the issue of accurate and reliable coaching models and methods of selection can be seen.

- ❖ The highest medals Ethiopia have got at world champion and Olympic Games were Sydney Olympic and Helsinki world championship. And the result decline at deagu world champion with only 1 gold and 4 silver medals. It is known that the performance and result of Ethiopian athletes of 5000m & 10000m at world championship and Olympic game have been declining. In order to identify the cause and factor of decreasing the

result of 5000m & 10,000m athletes the researcher designs the following basic research question.

### **1.3. Research Questions**

1. Are the coaches competent?
2. What are the criteria of talent identification for the athlete to join the National team?
3. What are the criteria of selection of athletes for the world championship and Olympic game?
4. What are the current practice, problem and challenges of 5,000m & 10,000m in golden league?
5. What motives athletes to choose 5,000m & 10,000m?
6. What are the effective training help to develop performance?

### **1.4. Objective of the Study**

#### **1.4.1 General objectives**

To investigate the causes of decline the result of 5000m & 10000m athletes at world championship and Olympic game.

#### **1.4.2 Specific objective**

- ❖ To assess the specific challenges and problems of 5,000m & 10,000m existing in the current situation.
- ❖ To distinguish the solutions for the problem of decreased result of 5,000m & 10,000m of athletes in world championship and Olympic Games.
- ❖ To identify the selection mechanism of athletes for world championship and Olympic game.
- ❖ To provide information for further study

### **1.5. Significance of the Study**

The researcher will identify the proper and better selection mechanism and coaching Methods for world championship and Olympic game

The significances of the study are:-

- ❖ It incorporates the new result of the research findings in to the System of the country's method of coaching and selection of athletes.
- ❖ To investigate the problems of 5000m & 10000m result of male athletes in world championship and Olympic game.

- ❖ It provides favorable ideas and facts that would help for the development of athlete's performance and scale up the performance of 5000m & 10000m male athletes.

## 1.6. Delimitation of the Study

This research is limited to 5,000m & 10,000m athletes of national team .and also limited to the cause of decline result of Ethiopia at world championship and Olympic game.

## 1.7. Limitation

Because of work over load and time constraints the study will be delimited to 5000m& 10000m athletes' national team. Lack of recent and relevant literature on the topic specially, in Ethiopia context. There is also lack of updated related literature in the area. Lack of finance and time also other delimitation of the study was.

## 1.8. Operational Definition of Terms

- ✚ **Athletics:** Track and field sports which embrace events in jumping, running and throwing.
- ✚ **Challenge:** stimulating test of abilities or a situation that tests some body's abilities in a stimulating way (Encarta: 2009).
- ✚ **Coach:** is a person who trains on athlete to reach to performance
- ✚ **Performance:** is an observable behavior of athlete in training and competition.
- ✚ **Long distance:** Are all distance from 5,000m up to marathon
- ✚ **Training:** is a systematic process with the objectives of improving an athlete's fitness and performance level in a selected activity.
- ✚ **Trial run:** a test of how well something new work, so that you can see if any changes are necessary (oxford dictionary of English).

## 1.9. Organization of the study

The study is organized in first chapter introduction statement of the problem, significance of the study, delimitation of the study, limitation of the study, definition of terms/operational definition/ and the organization of the study itself. Chapter two deals with the review of the related literature, chapter three deals with research methodology, population, sample and techniques, data

gathering instrument, data collection procedure, source of data and data analysis, chapter four treats the analysis and interpretation of the data collected and finally chapter five is composed of the summary , conclusion and recommendation of the study. In addition to these lists of the reference materials and sample of questionnaires are annexed in the appendix.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Method of coaching**

Personal and professional coaching has emerged as a recognized career in the last decade and it has created new options for people who seek help with life transitions in finding a *guide* to partner with them in designing their desired future. While coaching has grown to incorporate a variety of specialized applications, the case can be made that life coaching as a whole-person, client-centered approach is the foundational operating system. As an operating system, the whole life approach is always in the background of the conversation, just like an Operating System (OS) in a computer system. Invariably, any specific focus of a coaching relationship will be interconnected to other areas of a person's life. If you have a client who wants to be a better manager, or make a career transition, you will find that conversations about their significant relationships, or their personal wellness, or their stress level could and should come up in the conversation. They are all intertwined in a whole person approach. For your coaching practice, this means that you need to be willing to open up conversations through asking questions about other areas of the client's life. What is working well? What is less than in satisfying? How do *energy drainers* in one area of the client's life *bleed over* into effecting their stated goals? Before about 1990, there was little mention of coaching except in the corporate culture. Although there were a few people who were doing personal work and calling it coaching before that time

Since methodology of coaching is about coaching training and games, it is imperative to create conducive environment at trainings and games. "Creating a training environment requires a clear understanding of what you want to accomplish, how you intend to accomplish it, and a plan to implement it." Lauren Gregg; Soccer Coaching Bible pp.74

As indicated above a conducive training environment requires those aspects to handle the work of coaching healthy while games require the coaches' ability to read the game by observing the strong and weak side of own team and the opponent's, too. Recruitment is one of the tasks the carrier requires as every coach's aim is to get success. Even though the coach is good at the methodology the quality of his players determine his team's success that it is due to recruit

players who suit the coach's methodology after serious steps because "The carpenter is only as good as his tools."

## **2.2.Coaching philosophy**

*According to Thomson, P.L (200),* coaches are not true to themselves for many reasons. These include the goal of winning at all costs, bowing to pressures from parents and other outsiders, or even attempting to mimic the supposed successful methods of other coaches. While many of these influences can result in positive coaching delivery, they have to be taken into the context of the coach's true experiences, values, opinions and beliefs. It is imperative to appreciate that the coach has a strong influence over the athletes he or she coaches. It makes sense, therefore, to formulate a philosophy based on the coach's aims, beliefs and personality. The objective of educating the athletes about how and why you coach and what you are trying to achieve develops trust and above all hopefully results in superior athletic performances.

Therefore, if you are a coach that does not operate within your personally defined coaching philosophy, read on. You will become a better coach and your athletes will be the beneficiaries. Assuming that you are a coach you presumably carry out your role based on your experience, knowledge, values, opinions and beliefs. This in itself is a philosophy. You likely do this unconsciously. The question is – do you actually know yourself well enough to understand what your core values and coaching methods are? Of all the coaches I personally know, very few have seriously considered all of the factors that dictate how they coach. Therefore their methods are often inconsistent, reactionary and not directed toward an "athlete first" and performance based approach. A coaching philosophy that is well thought through clarifies many aspects of the coach's delivery and presents a consistent and positive message to the athletes being coached. One of the strongest benefits arising from a consistent and sincere approach to coaching is trust. A strong bond between coach and athlete leads to higher levels of commitment and athletic performance. With that in mind it is the wise coach that takes the time to think through and formalize his or her personal coaching philosophy.

A personal coaching philosophy can be likened to a roadmap. Knowing what car you have to drive (your experiences, beliefs, opinions, and values) you can steer your vehicle along the route taking into account the obstacles you may encounter (coaching context, outside influences, facility limitations, rules, regulations, inclement weather, etc.) to reach your destination. (Athlete performance, satisfaction, results, etc.). Therefore in developing a formal philosophy the coach can take three key components and to his or her best ability formulate a coaching philosophy

document with the aim to be a better coach, to improve coach/athlete satisfaction and to achieve superior athletic results. These three components are:

1. Knowing yourself, your strengths, weakness and areas requiring improvement
2. Knowing what you are up against and the obstacles you may encounter
3. Understanding your athletes, their personalities, abilities, goals, and why they are in your sport.

### **Components of an effective coaching philosophy**

#### **Know them self**

The most effective coaches that I personally know or have read about have an excellent understanding of their personality traits and habits. They are able to use their strengths and minimize their weaknesses. It takes honest assessment to admit to having weaknesses but we all have them. We just do not want them to interfere with good coaching judgment. By focusing on your strengths you will be able to identify consistent ways to coach that utilize those strengths. Are you a good teacher, or motivator, or academic, or communicator or a former athlete? Are you dynamic or easy going, or hardnosed or open and friendly? Use your strengths to your advantage. Some may question whether being 'hardnosed' is strength. The answer lies in the coaching context. If your athletes are pre-pubescent girls, perhaps a hardnosed approach will not be effective; however, if your athletes are teenage boys from the 'rough' part of town, this approach could be very effective. The point is by taking time to make a serious assessment of your strengths and weaknesses and recognizing your morals, values and beliefs you are better able to adapt your own style to the athletes being coached. In addition you will answer the important questions on why you are a coach, how you actually deliver as a coach and what objectives you are trying to accomplish. Self-knowledge leads to self-confidence and you want to exude what you believe in. One other point to consider here is -how do others perceive you?

#### **Know what you are up against - your coaching Context**

As important as it is to understand what makes you tick, it is equally important to understand the confines of your coaching context. By this I mean:

- A good understanding of the age, gender and training level of the athletes you coach
- How much time do you and your athletes have available to train and compete?

what is your development program based upon and how far can you take it by enhancing and incorporating other aspects such as sport psychology, nutrition education or sophisticated technique analysis?

What funding, facilities, services and equipment are at your disposal?

And what are your short medium and long term goals for your athletes?

There could be other restrictions that will affect your coaching delivery. These include laws or policies on safe practices, club or school rules of behavior, competition with other sports, school pressures and outside activities, parental interference, or performance standards to qualify for teams and competitions. Knowing what you are up against enables you to tailor your annual training program to the specific needs of the athletes you have under your charge. By understanding the outside influences that will affect your program, you can incorporate those that are good practices such as policies on safety and behavior, adapt to others that restrict your ability to be the 'do it all coach' such as lack of funds, equipment or services, and minimize negative obstacles that will affect you personally or an athlete on your team or your team in general. Dealing with parents can be a stressful situation and a clear philosophy on how you will deal with an irate parent will minimize or avoid the knee jerk reaction that often makes matters worse. By adapting your coaching philosophy to reflect the coaching situation you are dealing with you become more effective and productive and you minimize obstacles and other difficulties.

### **Understand your athletes, their personalities, abilities, goals and why they are in your sport**

A recent study done to determine why athletes participated in sport indicated that the athletes' primary reasons were to have 'fun' and learn skills. 'Winning', perceived by many to be likely the most important reason for participation ranked no higher than 7th even among the most competitive athletes. With this in mind you should ensure your program focuses on these critical areas in order to retain your athletes and recruit new ones. Communication is a vital aspect in coach/athlete relationships. It is very important to talk to your athletes individually to determine what their values and beliefs are, what their goals are and why they are participating. Without this knowledge you might be delivering a coaching bag of apples to athletes wanting a bag of oranges. The program just will not work properly. As a coach you are a powerful role model and can have a tremendous influence on your athletes if you and your athletes are on the same page. Take the time to get to know each of your athletes just like you examined your own values,

beliefs and habits. Once you know and understand each of your athletes, their strengths, weaknesses abilities and skills, then I suggest you develop an approach to coaching them. Will you focus on the stars? Will you treat everyone equal in terms of your attention and help? Perhaps the teamwork approach will work for you.

### **The Athlete, Coach Relationship**

Both the athlete and coach need to have high levels of understanding, honesty, support, liking, acceptance, responsiveness, friendliness, cooperation, caring and respect for one another to have an effective relationship. (<http://judoadvisor.com/2010/10/the-athlete-coach-relationship>). In order to develop these characteristics will take many interactions before, during and after training and competitions.

#### **Closeness:**

An athlete and a coach should feel close to one another, there should be feelings of trust and respect for one another and of course just plain liking the other person. As a coach, you may consider being more open with your athletes, trusting them with some small details of your emotional states might be a start. Consider it a “test of the waters”, if they react in a way that you expect/want and earns your trust, then share more. This process of sharing items and trusting your athletes with the information can lead to them feeling closer to you and to them. Respect will grow from their respecting your privacy and your taking the risk of sharing with them. (Jowett & Cockerill, 2003).

#### **Co-ordination:**

The athlete and the coach should be “on the same page”. They need to understand each other and be able to think similar by having open discussion with your coach you can establish a shared perspective on where you want to go and how you are going to get there. Perhaps you can ask your coach this week to sit down (away from training) to have a chat about your career plans.

#### **Complementarities:**

An important factor in the athlete relationship is the sense that coach adds positively to athletes efforts. It is important that both feel they are that better together than apart. For example, typically an athlete will appreciate a coach’s expert knowledge and experience; whilst the coach will appreciate the athlete ability to learn and to follow what they show him.

#### **Communication Skills**

Communication is the art of successfully sharing meaningful information with people by means of an interchange of experience. Coaches wish to motivate the athletes they work with and to provide them with information that will allow them to train effectively and improve performance. Communication from the coach to athlete will initiate appropriate actions. This however, requires the athlete to receive the information from the coach but also to understand and accept it

### **2.3. Principles of athletics training**

Several principles of physiological conditioning are common to improve performance in the diverse physical activity classifications (IAAF 2001).

#### **The Principle of Individuality**

Individual differences impact a person's response to an exercise program. Some of these are age, gender, genetic makeup, size and shape, athletic history and chronic conditions or injuries. For example, women may need more recovery time than men, and older athletes may require more time than younger ones. In practical terms, this means that there is no "one size fits all" exercise program. Athletic activity should be tailored for the athlete's physical capabilities and athletic goals.

#### **The Principle of Progressive Overload**

Increased workload results in improved fitness, strength and endurance. To increase strength (including cardiovascular strength), muscles must be stressed by working against a greater than normal load. To increase endurance, muscles must be worked for longer periods or at higher intensity than they are used to. These training loads should be gradually increased to assure proper training effect and to prevent injury.

#### **The Principle of Adaptation**

The body adapts to increased physical demands. This results in enhanced athletic performance and more efficient use of energy. However, performance is likely to plateau if a particular workout is followed routinely. Variations in intensity, duration and type of exercise should be introduced to provide new physical challenges, prevent staleness and increase the training load.

### **The Principle of Specificity**

To increase performance in a particular exercise or sport, the athlete should practice that sport. For example, swimmers should swim and runners should run. To prepare for competition, training should include objectives, method and content similar to what the athlete will face. In addition, other activities, such as strength training, may supplement basic workout routines and enhance capability in the target sport.

### **The Principle of Warm-up and Cool Down**

Warm-up through low-intensity activity increases blood flow to the working muscles and prepares them for high-intensity tasks. Physiologically, proper warm-up increases body temperature by one to two degrees. Following exercise, cool down helps transfer blood from working muscles back to vital organs. Cool down also is essential for removing metabolic wastes.

### **The Principle of Rest and Recovery**

The body regenerates during rest, becoming better and stronger than before. The athlete should maintain proper rest intervals between training activities and get plenty of sleep.

### **The Principle of Reversibility**

De-training occurs rapidly once a person stops exercising. Therefore, it is important to maintain some level of exercise—even if minimal—if circumstances prevent regular training. For example, when travel or work demands interfere with the normal routine, even one day per week will slow reversibility. Likewise, cross-training in the case of injury helps maintain overall fitness. meaningful information with people by means of an interchange of experience. Coaches wish to motivate the athletes they work with and to provide them with information that will allow them to train effectively and improve performance. Communication from the coach to athlete will initiate appropriate actions. This however, requires the athlete to receive the information from the coach but also to understand and accept it.

## **2.4. Factors affecting performance of athletes**

### **Diet and Exercise**

Not all diets are healthy. The food taken in must provide all the nutrients for body growth and the energy for exercise. A balanced diet must contain all the nutrients you need in the current amount. Involvement in hard physical exercise does not seem to have any long- term effects on

the digestive system however during hard exercise blood is diverted from the stomach to the working muscles, this means that any food in the stomach cannot be absorbed during the exercise often the body tries to get rid of this food during exercise by vomiting (Drnheim, et al, 2000).

Diet is a major importance to the sport person. Different performers require different types of food, reflecting the different types of physical activity that are undertaken. In addition, a person's diet may change prior to competition. The aims of the recompetition diet may be to:

- Build up stores of carbohydrates-so that energy can be produced for longer period of time.
- Enter the competition with as little in the stomach as possible this helps the breathing process
- Prevent gastric disturbances-the competitor should avoid gas -making foods onion, baked beans and cabbage.
- Provide positive psychological attitude- if a good diet is followed it helps to develop sense wellbeing, both before and during completion.
- During physical activity food stuffs must be avoided but sports people should drink liquid especially water to replace losses brought about by sweetening and energy production, and to help maintain body temperature.
- After hard physical activity it is important to continue replacing lost fluid and eating food replaces depleted energy stores. However eating should be delayed from between one to two hours after competition (from [www.ocr.org.uk](http://www.ocr.org.uk)).

### **The environment and performance**

The main factors to be considered are discussed below:

- The weather it can be too hot, cold humid or windy for a person to produce a high level performance. Few athletes can produce their best performances when it is raining or very cold. The training program should reflect the anticipated conditions that will prevail when the competition is due to take place. Remember, it is not just the cold that can affect performance. How many 'fun-runners' train in the evenings after work for special half marathon and then find that the event takes place in the heat of the day?
- The state of the sports area the track or the sports field can influence performances. Pitches with long or wet grass slow players down. Long grass can also affect the movement of a ball in a game. Artificial surface will also affect performance, if the player is used to grass. Inside, a dusty or wet floor in a gymnasium can be slippery and is, therefore, very dangerous.

□The venue- the training program should take in to account where the event will be held. This is specially so if the event is to tackle place at altitude.

### **Lifestyle and performance**

The way we live affects our performance. Training for fitness not only includes doing the correct physical work, but also means generally living our lives in a healthy way. It is not possible for burn the candle at both end and product a good class of performance. So, what do we mean by our well being? It covers;

□Physical well-being:- a body working well, free from illness and injury.

□Mental well-being: a relaxed attitude, a mind free from stress and worry

□Social well-being:- a warm, contented, well fed existence in a settled social environment.

Athletes with a healthy lifestyle could be said to have a 'SASHED' approach to life:

□Sleep sufficient good quality sleep is an essential part of any training program.

□Attitude a positive attitude is desirable in all people. But essential in sportsperson' attitude' includes having respect for one's opponents and fellow players. Like a positive approach to competition, respect, for others is essentially and it can help, indirectly, to produce a better individual performance.

□Smoking:- smoking tobacco makes you smell, can ruin your health and can eventually kill you .

□Hygiene- good personal hygiene helps you to avoid infection and makes you feel good. For athlete, good foot care inessential.

□Environment-living in a pollution free situation can help to void respiratory illness. Also, climate and the weather can affect performance.

□Diet- a currently balanced diet can help you cope with the everyday stresses of life (Webster, 2000).

### **Age and Performance**

Age does affect performance in a number of ways.

□Strength- full strength is not attained until a person is in their early 20s and muscular strength can be improved rights though a person's 30s.

□Injury:-older people are more prone to injury than young people. They often takelonger

□Flexibility- the very young are very flexible and his continues with women in to theirteens. By their 30s men in particular tend to have lost much of their flexibility

□Reaction time:-this shows down with age.

□ Experience- older people tend to make up for their reduced physical capabilities by using their skill levels to better effect. This is known as an experience

### **Injury and Performance**

Being fit does not prevent illness although it is true that a fit person should recover from both illness and injury more quickly than an unfit person. Injury is one of the biggest problems that can face a sports person. It is often the single most limiting factor relating to performance.

Prevention of injury is better than cure. Injuries are best avoided by:

- Training correctly and with the aim of developing those factors that are important for the event.
- Doing sufficient warm-up activities, including flexibility and stretching exercise to help prepare the body for work, and warming down.
- Using protective equipment, such as mouth guards, shin pads and helmets which are designed to protect the players, as well as enhance performance.
- Wearing the correct clothing for the sport concerned, as ill fitting shorts can chafe the inside of the leg and poorly fitting footwear can lead to a host of leg and foot injuries.
- Playing to the rules of the sport. Rules are not just about fair play but were also devised with the safety of the individual in mind. Referees and umpires are duty bound to enforce the rules to help protect players.
- Checking that the environment is safe (Honey Bourne, et al, 2000)

### **2.5. Nutrition improve athletic performance**

*Rational diet can improve athletic fitness in endurance sport by 7% (Janssen, 2001).* carbohydrate rich diet for endurance athletes slows down the heart rate by 7 times per minutes. *“If you want to become faster, stronger, and more flexible, pay attention to the food that you eat” Kaunas 2012; sports coaching basics.* Optimal nutrition is the key to peak performance on and off the field, because food provides essential nutrients necessary to build and maintain a strong body. *“Biomechanical changes take time and persistence, but changes in diet can be made quickly and can have an immediate effect on how your body works,”* says US Olympic triathlete Jarrod Shoemaker. He has used Inside Tracker’s blood analysis to learn about what’s going on inside his body and to help him maximize his performance. Inside Tracker shows which biomarkers are out of range? But that isn’t the best part, says Shoemaker. *“Inside Tracker provides suggestions for foods to eat - not just because somebody said so, but because your OWN body said so. What a*

great idea!” he says. Another athlete who benefited from changing her nutrition was one of the 2012 US Olympic track cyclists who spent many hours training and building her endurance. But to reach the next level in her training, she needed to know if she was missing any key nutrients from her diet. An Inside Tracker blood analysis revealed that she was very low in vitamin D. Inside Tracker gave this athlete and her coach some recommendations that would increase her vitamin D, which helped to improve her performance, and contributed to her success in London where she won two Olympic silver medals in track cycling.

What are some of the most important nutrients for athletes? The Inside Tracker team analyzed thousands of peer-reviewed research papers to find the biomarkers that are the most critical to improving your physical performance. These are some of the biomarkers that are most essential for athletes, and the foods that you can eat to improve them:

**Hemoglobin** – A protein that is partially composed of iron and mainly localized in the red blood cells, hemoglobin transfers oxygen to the muscles and other organs. Athletes who don’t have enough iron may have compromised athletic performance, a depleted immune system, and an increased susceptibility to illness, chronic fatigue, irritability, and a high exercise heart rate. To improve your iron levels, be sure to increase your intake of foods like red meat, rice, wheat, oats, nuts, dark leafy greens, and beans.

**Creatine kinase** – Creatine kinase (CK) is a type of enzyme that is located in several tissues in the body, mainly in muscle. In normal conditions, there is a small amount of creatine kinase circulating in the blood, but when muscle damage occurs, CK leaks from the damaged cells and the amount of CK in the blood can rise substantially. Therefore, blood levels of CK act as an indicator to show muscle damage and the extent to which you are over-training. To help repair muscle damage and reduce high levels of CK, be sure you are eating enough lean protein, including soy, chicken breasts, and beans.

**Vitamin D and Calcium** – Low levels of each of these nutrients can increase the risk of low bone mineral density and stress fractures. Calcium plays an integral role in the growth, maintenance, and repair of bone tissue, maintenance of blood calcium levels, regulation of muscle contraction, nerve conduction, and normal blood clotting. Vitamin D is essential for bone health because your body needs it to absorb calcium. It also regulates the development and maintenance of the nervous system and of skeletal muscle. Dairy products like milk, yogurt, and cheese are rich in

calcium, but leafy green vegetables (think kelp and spinach), and dried beans will also help to improve your levels! To increase your vitamin D levels, eat more fatty fish (such as sardines, mackerel, and salmon), egg yolks, butter, beef liver, cheese, and fish oil. Some foods, such as milk, yogurt, cereal, and orange juice, are now fortified with vitamin D; so check nutrition labels to find how much is in your favorite foods.

What does a healthy diet look like? Athletes need a combination of protein, fat, and carbohydrates in order to maintain peak performance. Here's why:

**Carbohydrates-** Your body needs lots of oxygen for endurance events, which is why your rate of respiration increases during exercise. Carbohydrates are one of the best sources of energy due to the efficient way they use oxygen. In fact, they use less oxygen for every kilocalorie of energy produced than fats or proteins, which make them an important food choice for athletes. Some good examples of meals and snacks that are high in carbohydrates include: Peanut butter on whole grain bread Oatmeal or cereal with milk Grilled chicken breast and brown rice Dried fruit, such as raisins and apricots Remember that not all carbohydrates are grain-based! Squash, potatoes, parsnips, carrots, and bananas are also good sources of energy.

**Protein** – Dietary protein is broken down into amino acids that assist with everything from digesting food to repairing body tissue. Carbs provide the body's primary fuel while it is in motion: protein is more important in post-workout recovery. You need protein to repair exercise-induced damage. Protein also helps to replenish depleted energy stores, preparing your body for its next bout of activity. Both plant-based sources of protein (such as beans, peas, nuts, and soy products) and animal-based sources (such as meat, poultry, seafood, eggs, and dairy products) can be part of a balanced diet. Try to add to your diet protein from seafood, which is rich in omega-3 fatty acids; as well as protein from cooked dry beans and peas, which provide ample dietary fiber. But don't overdo protein. You need to maintain a ratio of carbohydrates to protein of about 3:1 or 4:1.

**Fat** - Hard-working muscles require the caloric energy that fat provides (fats contain 9 calories per gram, compared with 4 calories per gram in carbohydrates and protein). Fat's calorie density, along with your body's nearly unlimited storage capacity for fat, makes it your largest reserve of energy. One pound of stored fat provides approximately 3,600 calories of energy! While these calories are less accessible to athletes performing quick, intense efforts like sprinting or weight

lifting, they become essential for lower intensity and endurance exercise such as long-distance cycling and running. Fat is a critical source of fuel for endurance exercise; your body actually stores some fat in muscle fibers themselves. Recent studies have shown that regular endurance exercise increases the amount of fat stored within muscle fibers. By Perrin Braun May 28, 2013

### **2.5.1. General nutritional strategies before and during an ultra-race.**

In the 3 – 4 days before a race it is important to consume >8 g carbohydrate/kg/d and to stay well hydrated. Some women may find it difficult to consume >8 g carbohydrate/kg/d and may have to increase energy intake during this time (*Keizer et al, 1986*). It is particularly important to have a high carbohydrate intake and some protein as soon as possible after finishing a stage in a multi-day race for it could be only a few hours before the next stage and it is important to maximize glycogen re-synthesis. From an energy intake perspective, it is reasonable to plan for at least 400 kcal/h for women and 600 kcal/h for men. In spite of best practices most studies do show that adventure racers or multi-sport athletes do lose some weight during a race and there is a clear shift towards oxidizing more of the endogenous lipid stores after a multi-day event. To avoid food aversion (and calorie reduction), it is very important to eat foods that are familiar to the athlete for a new type of food may lead to gastrointestinal upset or reduced food intake due to unpalatability. A major issue when travelling to remote areas or foreign countries is the viability of non-contaminated food and water. If sanitation or availability of food is uncertain, it is important to bring pre-packaged food and drink (or a method of safe sterilization).

The consumption of bismuth subsalicylate may work as a prophylactic agent for traveller's diarrhea and it is prudent to discuss anti-biotic use with a physician prior to travelling into an area where diarrheal illness is common. Caffeine is very commonly consumed by adventure racers and ultra-endurance athletes. Numerous studies have found an ergogenic effect on endurance exercise performance from caffeine consumption taken in the hour prior to an event at doses as low as 1 mg/kg to about 6 mg/kg. For the habitual caffeine consumer, it is very important to have a source of caffeine in races lasting more than 16 hours for most people will undergo withdrawal symptoms at about this time if no caffeine is consumed. The resultant headache and irritability would be particularly troublesome with the added stress of adventure racing with team dynamics and navigation as added stressors. Caffeine intake is common in

ultra-events even for those who are not habitual caffeine consumers, due to the well-known wakefulness promotion properties that become a major issue when trying to exercise for > 16 hours continuously. A particular concern from a low habitual intake of calcium, magnesium and potassium mentioned above is the high incidence of muscle cramps that are reported during adventure races and ultra-endurance sports. Although routine supplementation with magnesium during a race has not been conclusively shown to prevent muscle cramps, it is prudent to at least ensure that dietary intake is sufficient to prevent a deficiency situation. Given that muscle cramps during exercise are clearly multi-factorial, it is important to consider that an imbalance of sodium, potassium, calcium or magnesium may be a factor. Some athletes find that calcium-magnesium (e.g. Roloids) or calcium carbonate (e.g. Tums) can help to minimize cramps during an adventure race and can have an added benefit of reducing GI upset. It is important to note that too much magnesium can lead to diarrhea and too much calcium can lead to constipation and, as with any suggestion, it is important to “listen to your body” and see what works best for an individual through trial and error during training and less important races. Sodium has received a lot of attention recently due to some reports of hypernatremia during marathons. Most studies have found that the incidence of hypernatremia ( $\text{Na} < 135 \text{ mmol/L}$ ) is < 5 % in adventure racing and ultra-endurance sports. In general, the risk of hypernatremia increases in those who gain weight during a race, who are less fit, and when hypotonic fluids are readily available (the latter 2 are usually not an issue in ultra-endurance sports). The propensity for hypernatremia is a function of sodium intake and output. The excessive consumption of low sodium beverages (water, soda pop) and those who are high sodium sweaters (white crust on clothes, stinging eyes) are more prone to developing hypernatremia and may require added sodium (tablets, capsules, foods (crisps/pretzels)) to prevent hypernatremia during prolonged exercise. On the contrary, it is possible to take too much sodium and become hypernatremia.

The latter is more uncommon than hypernatremia, but an excessive weight loss is one risk factor. Hydration is a critical factor in any endurance sport. The recommendations put forth for the triathlete in Dr. Jeukendrup’s article are relevant to the ultra-endurance athlete. There are however, several unique issues to consider. Firstly, it is impossible to carry even the minimal requirements for a 24 h race on the person (~ 24 kg) and it is essential that support stations are carefully planned and enough fluid is taken for the maximal amount of time between a check-point. There have been many examples where a navigation error has turned a 4 h trek into a 16 h nightmare. Under such circumstances filtering or other purification method are required. It is

critical to choose the filter to match the intended pathogens in the area (e.g. filters work well for larger organisms such as Giardia but are useless for viruses). It is also important to note that iodine is not appropriate for large volume or prolonged consumption of fluid and the water is highly unpalatable. Other practical issues regarding fluid intake include; insulating the drink hose in winter races to prevent freezing, setting up a drink system compatible with paddling (no hands), and changing flavors to prevent taste fatigue. It is also vitally important to have a variety of foods and bring foods with varying levels of protein, carbohydrate and fat. Animal studies have shown that consumption of very high carbohydrate leads to a subsequent preference for foods higher in fat and protein, and vice versa. One need only try to complete a multi-day stage race on gels, sport drink, and other high carbohydrate foods to experience this phenomenon in reality. Along these lines, human taste is highly individual and it is important to allow for some flexibility to suit the individual tastes of team members in an adventure race. Finally, it is important to consider the palatability and sterility of food when packing for a long trek. For example, pizza in aluminum foil for 8 h in a pack is less than appealing and has the potential for high bacteria counts, food not in water-proof bags is non-edible after a few hours on the bottom of a kayak or canoe, chocolate bars in the heat become a brown oozing liquid in the bottom of a pack, bars of any sort harden to the consistency of shoe leather in cold races and should be pre-cut into small pieces that can be warmed in the mouth.

In general, it is impossible to provide strict rules for adventure racing and ultra-endurance events; however, following the above guidelines, speaking with experts, and learning what works within the context of one's own body are the keys to successful nutrition. It is likely that the person to person specific nutritional strategies will vary more between any two adventure racers than between any other two athletes in any other sport.

## **2.6. Talent identification and selection**

Talent identification, as its name suggests, is the discovery or observation of factors or characteristics an athlete may possess that can influence success in a specific sport. There are multiple layers to talent identification, making it a complex and dynamic process. Talent transfer is the transitioning of skills and competitive success from one sport to another (Chelsea R. Warr & Renaat Philippaerts (2009). Talent identification (TID) strategies generally have two origins:

(1) athletes are selected from within their chosen sport on the basis of their performance or demonstrated prowess based upon their physical development, movement skill, physiological or psychological attributes, or; (2) potential athletes who are not currently participating in a sport are screened for attributes at the same or higher level to known successful athletes. The two strategies are often referred to as talent identification and talent detection, respectively.

Talent transfer is a slightly different strategy that is closely related to talent detection. However, athletes who are part of a talent transfer program have already proven to be successful competitors. They already possess many of the intangible qualities that successful athletes share. Their past experience usually provides them with a level of knowledge and confidence (i.e. knowing what it takes to succeed) that may be equal to successful athletes in their new sport; this allows them to fast-track into an advanced training or advanced competition program. Talent transfer may be seen as a viable strategy when targeting senior athletes who have already accumulated substantial training and performance histories.

### **2.6.1. Complexity of TID Theory**

One of the benefits of a TID program is spotting athletes early in their developmental progression, so that sports systems can address their strengths or weaknesses to assist a steady or accelerated progression toward elite performance, *Ralph Richards, (2 March 2016)*. However, junior athletes may experience success at their current stage of development without being truly ‘talented’; because of short-term performance influences, such as early physical maturation or access to superior resources. Although current performance is certainly one consideration in a talent identification matrix, it is by no means the most important – particularly at a very young age. The complex interaction among all success variables presents a number of challenges when developing a talent identification model. Early assessment of sporting ‘talent’ is also compounded by the fact that a diversity of sporting experiences is encouraged. Multiple sport experiences during childhood often allow young athletes to acquire a broader range of skills and experiences before they concentrate on one sport. On the other hand, early athlete selection in one sport allows more targeted training activities during adolescence (which may be a critical period of physiological and psycho-social development). Empirical evidence shows that a diversity of activities (including variations of play and practice) during the foundation stage is a good indicator of continued involvement in more intense activities later in life, leading (in some

cases) to elite performance in one, or a few, selected sport(s). However, many variations (in the way an athlete develops) are observed in a practical setting.

Success at the elite level of sport performance stems from a combination of many factors, which are influenced by socio-cultural and politico-economic conditions as well as individual performance factors. Intrinsic factors (e.g., body type and rate of maturation, aptitude, adaptation to training, motivation, and psychological skills) as well as extrinsic factors (e.g., environment, access and opportunities, sports systems, coaches, family, etc.) work in synchrony to determine an athlete's success. Both genetic and environmental influences must be acknowledged.

A number of different approaches have been used to implement Talent Identification (TID). Although evidence can be found to support each approach, an integrated model is more likely to yield consistent results in identifying future athletic potential.

### **Physical / Physiological Models**

This approach supports the idea that there are distinct physical/physiological profiles for individuals in different sports. Talent identification is based on the belief that profiling young people on these measures will identify individuals with the potential to be successful in specific sports or events. As a result, many TID models have been underpinned by analyses of these characteristics. However, many performance variables may be unstable during adolescence (they vary with age) and many studies show inconclusive results.

The assumption that individual having favorable characteristics are the most talented is unfounded. Young athletes who excel (i.e. produce winning results) in strength sports tend to be early matures. It will take technical superiority for late maturing individuals to match their early maturing peers at a young age; so they may actually be the more 'talented'. Models using this approach may eliminate many young athletes who have potential to develop physically/physiologically, but are late maturing.

### **Skill Models**

There are a number of basic movement skills (fundamental motor abilities) required to participate in any sport. Mastery of skills is an essential precursor of excellence, and in some sports these skills must be acquired by age 12 or 13 or the likelihood of future success is limited.

Sporting abilities do not develop automatically, they need quality teaching/coaching and regular practice opportunities and most young people do not receive optimal opportunities. Skill models use technical ability to direct athletes into programs or environments where they will receive the best training opportunities. For any consistent success from this approach, the talent identification must be preceded by quality fundamental motor abilities programs.

Schemes that encourage early specialization may result in children dropping out if they do not have, or perceive that they have, the required skills.

### **Psychological Models**

Research consistently identifies psychological determinants of sporting performance. Many researchers consider psychological factors to be the main determinants of individuals' potential in sport, as motivational drivers of skill development and continuing commitment to training and competition. There is no doubt that psychological factors are related to current/future performance outcomes, but there is no evidence that psychological factors alone provide an effective base for TID. The influence of psychological models can/should be incorporated into broader talent detection/identification models.

### **Genetic Markers**

The physical and physiological potential of an individual is influenced by (although not completely defined by) one's genetic makeup. Many of the traits that contribute to sports performance (e.g. endurance capacity or muscle power) are linked to single or multiple genetic expressions or variants. Attempts to identify specific genes that influence performance, and then use that knowledge to identify potential sporting talent have yielded mixed results. This may be the consequence of the very complex nature of talent identification (e.g. various performance domains – physical, psychological, socio-cultural, etc.) and talent development (e.g. coaching, training quality and quantity, opportunities, etc.).

Research has progressed in an attempt to identify genetic markers of physiological capability (e.g. potential) on individual characteristics, such as endurance or muscular power. Research is also directed toward identifying genetic markers that fit models predicting the likelihood of having significant traits associated with individual sports.

**Predicting elite endurance athlete status:** A genome-wide exploration Bouchar C, Rankinen T, Sarzynski M and Wolfarth B, Prince Faisal Bin Fahad International Prize for Arab Sport Development Researchers (2014). A total of 195,000 genomic markers were typed in each of the 315 male endurance athletes (max VO<sub>2</sub> ≥ 75ml/kg/min) and 320 non-athlete controls (max VO<sub>2</sub> ≤ 50ml/kg/min). Markers whose allele or genotype frequencies differ at a level of statistical significance were used to define and optimize a panel of genomic predictors of elite endurance athlete status. This research offers the potential to identify genomic markers that would allow for the early recognition of those individuals who have the greatest genetic potential to reach elite endurance athlete status. The authors believe they have identified markers that can discriminate between the low responders and the high responder for max VO<sub>2</sub> trainability.

**New genetic model for predicting phenotype traits in sports** Massidda M, Scorcu M and Calo C, *International Journal of Sports Physiology and Performance*, Volume 9 (2014). The aim of this study was to construct a genetic model with a new algorithm for predicting athletic-performance variability based on genetic variations. The findings of this study suggest that a new model may be used to build a genotype score specific for a single key factor that is unique to each sport. To improve this model, it is essential to introduce additional genetic variants that are correlated with explosive muscle strength. The authors caution that additional research is needed to support the external validity of the data. There are many practical and ethical reasons why gene testing, as a means of identifying potential elite athletes, may be limited.

**Conventional and genetic talent identification in sports:** Will recent developments trace talent? Breitbach S, Tug S and Simon P, *Sports Medicine*, Volume 44 (2014). This article provides a single review of both conventional talent identification models and those using genetic markers, elucidating the limitations of each. Both conventional and genetic testing have methodological and technical limitations, such as: test designs; the point in time of testing, and; psychological skills or traits and unknown interactions between different variables. The challenge facing conventional talent identification programs is the development of valid and reliable sport-

specific test designs that also consider psycho-social, economic and many intrapersonal factors. Genetic tests determine DNA variants (polymorphisms) that are directly or indirectly associated with the disposition for sports-related physical capabilities. Genetic studies are statistical measures of the correlation with a trait, they seldom account for small (but potentially significant) gen-gene and gene-environment interactions. Human traits may demonstrate very complex developmental characteristics. As an alternative solution, sports might focus on a talent development approach; identifying the environments and conditions most suitable for widespread participation and guidance of those individuals expressing performance potential. While genetic testing may find a place as a tool for risk assessment in sport participation.

**The ethics of genetically testing children for athletic potential**, Camporesi S, *Sport, Ethics and Philosophy*, Volume 7, Number 2 (2013). The recent boom of direct-to-consumer (DTC) genetic tests, aimed at measuring children's athletic potential, is the latest wave in the 'pre-professionalization' of children that has characterized, especially but not exclusively, the USA in the last 15 years. In this paper, the author analyses the use of DTC genetic tests, sometimes coupled with more traditional methods of 'talent scouting', to assess a child's predisposition to athletic performance. There is a discussion of the scientific evidence forming the basis of these tests. The philosophical debate centers on how parental decisions and practices impact on a child's right to an open future, and on their developing sense of autonomy. In considering the role of sports in childhood, the author concludes that the use of DTC genetic tests to measure children's athletic potential should be seen as a 'wake up' call for other problematic parental attitudes aimed at scouting and developing children's talent.

'Gene testing: a valuable proposition', Nihill G, *Sports Coach*, Volume 28, Number 3 (2005). Whatever the result of future research, no one is suggesting that identifying a single gene, or even combinations of genes, will ensure a gold medal performance or the development of an elite athlete. However, gene testing might help in tailoring training programs for individual athletes, or help to identify athletes who are prone to particular sport-related injuries. There are no short cuts to the development of elite sportspersons. The consensus of opinion is that gene testing could be a guide to sports performance, but not the single determinant of it, because so many other factors play their part.

## **Integrated Models**

Talent Identification practitioners generally use a multi-dimensional approach to ensure that embedded measures of success reflect more than one developmental domain. It is an advantage to identify athletes at the youngest possible age, but there are many trade-offs in setting the ideal TID target age. TID introduced too early may be confounded by the variability of maturation rates within an age cohort. TID introduced after maturation (perhaps during late teens or early twenties) may be well past critical periods of skill acquisition.

TID schemes at any age will be influenced by family dynamics, socio-economic circumstances, and demographics (sporting opportunities may be influenced by location and availability of facilities and support services). They will also be influenced by an individual's accumulated experiences – has the individual developed a positive attitude to physical activity, received specialized instruction, or been influenced by school or club sports programs?

### **Talent Transfer**

Talent transfer often occurs informally when a high performance athlete seeks new opportunities for themselves in a different sport. The motivation may be financial (particularly among professional athletes), or from a variety of other sources.

Talent Transfer, Gulbin J, *Sports Coach*, Volume 30, Number 4 (2009). Data presented in 2004 indicates that 72 out of 256 athletes (28%) in the Australian Institute of Sport (AIS) or state institute/academy sport system who transferred to a new sport had attained senior national representation after less than four years involvement in their new sport. Using this knowledge, the Australian Sports Commission's National Talent Identification and Development (NTID) program has developed guidelines to help facilitate the talent transfer process, so as to retain quality athletes in the sporting system.

Gulbin found that successful talent transfer athletes had these positive characteristics: (1) high motivation and goal orientation; (2) great self-management skills; (3) good work ethic; (4) proven performance in a competitive environment, and; (5) no bad technical habits. There were also three common barriers to successful transition into elite competitive success in another sport: (1) skill, physiology and motivation were not in balance; (2) frustration with inferior coaching and/or support environments, and; (3) inpatients for success or unrealistic expectations.

Although research has been conducted on only small samples of elite athletes transferring from one sport to another at the highest level of competition, the environmental and psycho-behavioural characteristics observed among successful athletes are similar to Gulbin's observations.

Second chances: Investigating athletes' experiences of talent transfer, MacNamara A and Collins D, *Plos One*, published online (24 November 2015). Talent transfer initiatives seek to fast-track the performance of mature athletes from one sport to another. However, there is limited evidence on the underpinning mechanisms by which success is 'transferred' from one sport to another. This exploratory study sought to identify the factors which successfully transferring athletes cite as facilitative. Participants identified a range of psycho-behavioral and environmental factors as key to their successful transfer of sports. Interview data were collected from seven elite, individual sport athletes (5 female, 2 male) whose mean age was 36.5 years . All participants had successfully transferred from an elite level (i.e. defined as participation at a global standard) in the donor sport to the equivalent standard in the transfer sport. Five out of the seven participants had medaled at an international championship (e.g., Olympic Games, World Championships, European Championships, Commonwealth Games) in both sports. In all cases the transfer was either self-initiated or coach driven. Two higher order themes were found to facilitate the transfer process: the talent transfer environment and, a number of individual factors that underpinned the transfer. Within the 'environment' theme, creating a positive learning environment and allowing the athlete sufficient time to adjust to the new setting were considered most important. Among the key 'factors' were: (1) a firm understanding of what it takes to train and compete at a high level; (2) transfer of learning form donor to transfer sport; (3) confidence in one's ability (e.g. the feeling that physical capabilities could compensate for any lack of technical proficiency in the transfer sport); (4) ability to create an effective learning environment in the transfer sport; (4) commitment, determination, and motivation to succeed; (5) coping skills to deal with setbacks; (6) focus and disciplined training; (7) goal setting, and; (8) realistic performance evaluation. The authors suggest that further research into the mechanisms of talent transfer is necessary to strengthen the evidence base underpinning methodologies used in talent transfer initiatives.

To overcome the barriers of transitioning from one sport to another, quality coaching and service provision (sport science, sport medicine, and competition support) are essential. In addition,

integration with other high-quality athletes appears to help create a socially supportive environment.

**‘Talent Transfer’ in Sport: High level coach insight**, Dickinson R, Mallett C, Gulbin J and Weissensteiner J, University of Queensland and Australian Institute of Sport (2012). Despite a dearth of research, the strategy of talent transfer (TT) has been used and is currently applied in a number of countries. This study provides some exploratory in-depth data on the phenomenon, through accessing the expert knowledge of high level Australian coaches who have undertaken TT of athletes within the Australian sport system. Results of hierarchical analysis of interview data revealed a number of broad themes about the nature of TT, including: (1) TT is complex, with a number of higher and lower order variables; (2) the complexity suggests that a multidimensional framework be considered when seeking to understand TT; (3) specific ways of thinking about, teaching, and relating to TT athletes are unique to the TT situation and the personal and psychological characteristics of athletes; (4) future research may consider exploring TT using prospective rather than retrospective research.

Successful examples of talent transfer included the transfer between football codes, from gymnast to diver or aerial skier, and from individual sportsperson to multi-sport competitor or vice versa (e.g. runner or cyclist to triathlon / triathlete to runner or cyclist).

Spin to Win. This is a sophisticated ‘talent identification and transfer’ program led by Gymnastics Australia in partnership with Diving Australia and the Winter Olympic Institute of Australia Aerial Skiing program. The program results in high quality acrobatic talent training in the most suitable high performance sport development pathway, with the goal of producing more podium performances for Australia. Many skills acquired during gymnastics training are common to those skills featured in Diving and Aerial Skiing – all have an acrobatic skill base. The *Spin to Win* project is intended to: (1) enable sophisticated tracking of talented gymnasts and assess their suitability for transfer at critical transition points in their development; assessment includes physical, technical, mental/emotional, and aptitude potential; (2) identify suitable talent from Gymnastic Australia membership (i.e. 170,000 member talent pool) to support sport transition (at appropriate stages of the FTEM Framework) to high performance pathways in Diving and Aerial Skiing, and; (3) support the *Australia’s Winning Edge* national high performance strategy for Olympic sports.

Talent transfer may allow an athlete to extend their sporting career by renewing motivation and presenting a new challenge. If the switch was prompted by a performance plateau or injury, it may allow the athlete to relieve past psychological or physical barriers. From the sport's perspective, talent transfer maximizes the return on investments made in an athlete's career development.

Ski and Snowboard Australia has a well-established program for talent transfer to the discipline of aerial skiing. In conjunction with the Olympic Winter Institute (OWI), the Victorian Institute of Sport (VIS) and Mt Buller Ski Resort, Ski and Snowboard Australia offers a transition program for retired gymnasts. The Aerial Transition Program seeks to provide a small number of athletes with a high quality program. The skills an athlete possesses from prior gymnastics training and competition experience are enhanced through specialized coaching and competition opportunities.

The Australian Institute of Sport, as part of *Australia's Winning Edge* high performance strategy, has implemented the *AIS Sports Draft* program that aims to fast-track the development opportunities of elite athletes who are interested in transferring to other sports. The 2014 Draft targeted six sport areas: athletics (throwing, pole vault, and sprint running events), women's rugby 7s, hockey (women's goalies), combat sports, paddling (sprint and slalom canoe/kayak), and track sprint cycling. A similar Draft initiative for Paralympic athletes was conducted in 2014, with a focus on cerebral palsy and neurological brain impairment athletes in a number of Paralympic sport disciplines. [Source: [New-look AIS sport drafts](#), Australian Sports Commission]The 2015 Draft targeted four sport areas: combat sports, cycling, paddling (canoe/kayak), and women's rugby 7s. [Source: AIS Sports Draft, Australian Sports Commission]

### **2.6.2.FTEM Framework**

At the T1 level within the FTEM Framework there is an informal or formal process (sometimes both) used to assess and identify potential elite performers. Informal processes often include the subjective assessment by coaches that relies upon their accumulated experience in working with elite athletes, or young athletes who subsequently went on to become elite.

Sporting organizations may develop formal systems of TID using available evidence from within their own sport, or comparing generic test results to normative data from the population, as a means of identifying high performance against key performance variables.

Along with identification may come recognition and with it, access to enriched programs (e.g. additional coaching and access to facilities) and support services. Recognition may also include new competition opportunities (e.g. representative age team or qualification for a higher level individual competition). There is no set timeframe that an athlete may stay in the ‘talent identification’ stage.

The T2 talent verification phase is sequential and complementary to T1 and is supported by informed observation as well as evidence-based judgments. At the T2 stage additional monitoring of an athlete’s performance, perhaps supported by additional assessments/testing on key performance factors, will eventually lead to ‘talent verification’.

Confirming the athlete’s talent leads to more formalized commitments by the sporting organization in terms of time and resources. It also means that an athlete must commit further time and effort to take advantage of the opportunities presented.

### **Pathways to the Podium**

The Pathways to the Podium Research Project was a multi-sport, multi-national investigation of sport expertise development conducted by a team of sport scientists from the Australian Institute of Sport (led by Damian Farrow), Victoria University, Melbourne, and York University, Toronto, Canada. This project aimed to gain a detailed understanding of the pathways elite athletes follow on their way towards attaining peak performance. Most importantly, the project investigated how the pathways of elite athletes differed from those of lesser skilled athletes. The information obtained from this research provides insight into the conditions of sport participation and practice that are optimal for the development of sport expertise.

The major areas investigated within the Pathways to the Podium Research Project included: (1) patterns of involvement in practice activities for athletes’ main sport; (2) timelines of competition progression and achievement of major sporting milestones; (3) patterns of

involvement in other organized sports, and; (4) family influences on the development of sport expertise.

Sporting milestones and career progression of male Australian junior international level team sport athletes, blog posted (29 November 2011). Identifying the ages at which highly skilled athletes reach these milestones gives us an idea of the typical timescale of the 'pathway to expertise'. This information can essentially be interpreted as a time course of career progression that has been successful for the attainment of international level sports performance, and the avoidance of burnout and dropout. This information can then be used both as a marker to assess athlete development and to design developmentally appropriate youth sport programs. A comparison of football (soccer), volleyball and basketball players showed that soccer players reach each of the team sport milestones earlier than the basketball players, who in turn reach them earlier than the volleyball players. By the time athletes reach the junior national level of competition, the age gap between the sports begins to narrow and while the soccer players are still reaching these milestones at younger ages than the volleyball players, the differences between soccer and basketball disappear, as do the differences between basketball and volleyball. Interestingly, athletes from all 3 sports tend to make their junior international level debut and progress through the junior international level milestones at roughly the same age.

Faster, higher, stronger and younger? Birth order, sibling sport participation, and sport expertise development, blog posted (19 June 2012). The number of successful sibling and parent-child pairs in high performance sport makes it difficult to ignore the role of family in the development of sport expertise. 229 athletes representing 34 sports completed the Developmental History of Athletes Questionnaire. This study focused specifically on responses relating to athletes' siblings. Key findings include: (1) elite athletes were more likely to be later-born children, while pre-elite and non-elite athletes were more likely to be first-born; (2) older siblings of elite athletes were nearly 2.5 times more likely to have participated in general fitness activities on a regular basis than older siblings of non-elite athletes; (3) younger siblings of elite athletes were nearly 4 times more likely to have participated in competitive sport on a regular basis than younger siblings of non-elite athletes, and; (4) siblings of elite athletes were more likely to have competed in the same sport at the elite and pre-elite levels than siblings of non-elite athletes.

Following in their footsteps? Sport expertise and parental participation in sport and physical activity  
Hopwood M, MacMahon C, Baker J and Farrow D, North American Society for the Psychology of Sport and Physical Activity Conference, Honolulu, Hawaii (June 2012). Although associations between parent's and children's participation in physical activity have been explored, little is known about the associations between parent participation in sport and physical activity and the development of sport expertise by their children.

## **CHAPTER THREE**

### **3. RESEARCH DESIGN AND METHODOLOGY**

Research needs a foundation for its inquiry, and inquires need to be aware of the implicit world views they bring to their studies (Creswell and Clark, 2007 as cited in Anduamlak,2009). In light of this, philosophical foundations of a research represent underlying assumption on the nature of reality (ontology), how we gain knowledge of what we know (epistemology), the role values play in research (axiology), and the language of research (rhetoric). The research design and method selected under here are, therefore, underpinned by the aforementioned foundations.

#### **3.1. Research Design**

Research design refers to the plan of action that links the philosophical assumptions to specific methods (Kumar, 1999). Thus, a descriptive survey method which is strongly believed to be the most appropriate for addressing the intended purpose of this study, “the cause of decline result of 5000m & 10000m of Ethiopian athlete’s at world championship and Olympic games.” ,was employed. In conformity to this, it may be safe if one consider Belay’s (2007) summary, which reads: ...the goal of descriptive research is to describe some aspect of a phenomenon, involve a variety of research methods such as survey, observation, correlation and case study. To make it more specific, he further goes on to add that typically survey method is used to scan a wide field of issues, populations, programs... etc. in order to measure or describe any generalized features. To this end, among many designs of research survey method was employed in this research as it can provide sufficient information regarding the subject.

#### **3.2 Subjects of the Study**

The participants of this study were all 5000m&10000m athletes of national team and three coaches selected from the staff of coach and one athletics federation officer. It assumed that it would be quite appropriate to get the relevant data directly from the subjects, that is, from trainee athletes and also from coaches respectively. From a total of 70 questionnaires distributed to trainee athletes, 61 and for 3 distributed to coaches all 3 were properly filled and returned. Accordingly, 61 trainee athletes and 3 coaches were participated in filling the questionnaires. Beside this, 1 athletics federation officer has taken parts in the interview.

### **3.3. Instruments of Data Collection**

The data for the study were collected using questionnaire, interview and observational checklists. With regard to documents, athletes' record sheets were consulted. The study employed the following instruments of data collection: questionnaire, interview and field observation. The use of these instruments proved to be helpful since it facilitated triangulation of information from the different sources. This multi - method approach reduces the changes that any inconsistent findings are attributable to similarities of methods (Cohen and Marian, Quoted in Lewin and Janet; 1991:101). Questionnaires were prepared to be filled by the 5000m & 10000m athletes of national team and coaches of the event. The questionnaire was distributed to sixty one athletes and three coaches. The questionnaire prepared to the athletes had twenty items and for coaches was fourteen both are close ended questionnaires. Then an interview was conducted with the technical director of athletics federation. The interview had six structural questions and some of the questions had similarity with the questions in the questionnaire to cross check if there is similarity with what the athletes, the coaches and the technical director. Furthermore, field observation was made just to see what was actually happening regarding'' the cause of declining result of 5000m& 10000m athletes in the practical training session.

### **3.4. Sampling Procedures**

The researcher used purposive sampling technique and all seventy athletes of 5000m& 10000m members of national team were selected. I have decided to take all the athletes of national team as they are manageable in number. In addition there is one head coach and two coaches were selected from five coaches purposively. Also technical director are also taken as sample of the study by purposive sampling technique.

### **3.5. Pilot Test**

The instruments which were initially prepared, was given to my advisor in order to comment the extent to which the items were appropriate in securing the relevant information for the research. Based on the feedback obtained from my advisor, amendments were made. Accordingly, based on the comments obtained from my adviser the questionnaire was restated as required. Afterward, from the whole reaffirmed questions 20 items were considered to be rated for pilot test, for ten individuals of sululta kenema athletics club so as to check the consistency of a test result. To this effect, of several methods used to determine reliability, test - retest method was employed and analyzed by person product-moment correlation. The result computed 37and obtained (+0.87) clearly shows that there is, 'very high correlation' between these two tests of the same type which was given to the same group of athletes within a brief interval periods, 1day.

### **3.6. Procedure of data collection**

For those respondents who have been selected, the final copies of the questionnaires were distributed in face-to-face situation by the researcher. This was done intentionally, if there was a need for additional explanation on how to respond and to get back as many questionnaires as possible. Regarding observational checklists, it was filled during the training period in which the researcher was in the national team for the second time to collect the questionnaires. In addition to observational checklists, documents and actual observation were consulted by the researcher to triangulate the result of questionnaires. And interview was conducted selected officer.

### **3.7. Method of Data Analysis**

In this study, both qualitative and quantitative analytical procedures were employed. In conformity to this, as quoted Muluken (2006) suggested that qualitative and quantitative methods should be viewed as complementary rather than rival camps. The data collected from the questionnaire filled by sixty one and one head coach two coaches were tallied, changed in to percentage and put in to tables. Then, it was analyzed in words. The result from the interview was also properly arranged and discussed in the study. Finally, the data gathered by field observation was written down in a diary form the main results of the observation were discussed in the study.

Finally, the data were analysed and discussed to reach at certain findings which in turn were used to give conclusion and possible recommendation.

## **CHAPTER FOUR**

### **4. ANALYSIS, DISCUSSION, AND INTERPRETATION OF DATA**

This chapter deals with the presentation and analysis of the data gathered through questionnaire, interview and field observation. The data was obtained from sixty-one athletes. One head coach, Two coaches and one technical director of Ethiopia athletics federation gave sufficient ground to conclude about the cause of declining results of 5000m & 10000m of Ethiopia at world championship and Olympic Games. For the sake of easy interpretation and clarity of understanding the data have been presented in the following five subsections. Analysis of background information of players, analysis of questionnaire responses of athletes, analysis of Questionnaires, responses of coaches of national team, analysis of interview responses of the Technical director of Ethiopia athletics federation and Interpretation and discussion of field Observation. As has already been said, sixty one athletes and three coaches of national team had filled the questionnaire consisted of items up on as their sex, age, participating experiences, self- opinion concerning the cause of declining the result of 5000m & 10000m athletes in different world competition. The responses to the above items and other issues have been independently treated and the following results are obtained.

#### **4.1 Analysis of back ground information of athletes**

**Table- 1:** Distribution of sampled athletes' respondents by their sex, age group, education, marital status and training age

##### **Gender Category**

| no | Gender | No        | %     |
|----|--------|-----------|-------|
| 1  | Male   | <b>32</b> | 52.45 |

|   |        |    |       |
|---|--------|----|-------|
| 2 | Female | 29 | 47.54 |
| 3 | Total  | 61 | 100   |

### Age category

| No | Age      | No | %     |
|----|----------|----|-------|
| 1  | 17-25    | 46 | 75.40 |
| 2  | 26- 35   | 15 | 24.59 |
| 3  | 37-49    | -- | --    |
| 4  | Above 50 | -- | --    |
| 5  | Total    | 61 | 100   |

### Training age

| No | Years    | No | %     |
|----|----------|----|-------|
| 1  | 1-3      | 4  | 6.55  |
| 2  | 4-6      | 13 | 21.31 |
| 3  | 7-9      | 34 | 55.73 |
| 4  | Above 10 | 10 | 16.39 |
| 5  | Total    | 61 | 100   |

### Education

| No | Education        | No | %     |
|----|------------------|----|-------|
| 1  | Elementary level | 16 | 26.22 |
| 2  | Secondary level  | 38 | 62.29 |
| 3  | Certificate      | 4  | 6.55  |
| 4  | Diploma          | 3  | 4.91  |
| 5  | First Degree     | -- | --    |

|   |                         |    |     |
|---|-------------------------|----|-----|
| 6 | Second degree and above | -- | --  |
| 7 | Total                   | 61 | 100 |

### Marital Status

| No | Marital   | No | %     |
|----|-----------|----|-------|
| 1  | Married   | 17 | 27.86 |
| 2  | Unmarried | 40 | 65.57 |
| 3  | Widowed   | 1  | 1.63  |
| 4  | Divorced  | 3  | 4.91  |
| 5  | Total     | 61 | 100   |

The above table explains that respondent's information, as indicated in the first part of this table, a total of 61 athletes were involved in the study. Moreover, their information was analyzed as below regarding the sex of respondents' 32 (52.45%) athletes were male and 29 (47.54) athletes were female. Item 2 shows the vast number 46 (75.41%) of athletes are aged between 17-25 years. And 15 (24.59 %) and of athletes are swings from 26-35. According to the above table 34(55.73%) of athletes training age are from 7-9 years. Whereas 13 (21.31%) of athletes are between 4-6 years. 10 (16.39%) of athletes training ages are above 10 years and only 4 (6.55%) of athletes training age are between 1-3 years. as Item 4 shows that 38(62.29%) vast number of athletes respondent were follow their education up to secondary school. 16(26.22%) of respondent athletes were attend their education up to elementary school. whereas 4 (6.55%) and 3(4.91%) of athletes were hold certificate and diploma respectively. table 5 shows 40(65.57%) of athletes were un married, while 17(27.86%) of athletes were married. whereas 3(4.91%) and 1(1.63%) of athletes were divorced and widowed respectively.

**Table- 2:** Distribution of sampled coaches' respondents by their sex, age group, education, marital status and training age

### Gender

| No | Gender | No | %   |
|----|--------|----|-----|
| 1  | Male   | 3  | 100 |
| 2  | Female | -- | --  |
| 3  | Total  | 3  | 100 |

### Age category

| No | Age      | No | %     |
|----|----------|----|-------|
| 1  | 17-25    | -- | --    |
| 2  | 26- 35   | 2  | 66.67 |
| 3  | 37-49    | 1  | 33.34 |
| 4  | Above 50 | -- | --    |
| 5  | Total    | 3  | 100   |

### Experience

| No | Years    | No | %     |
|----|----------|----|-------|
| 1  | 1-3      | -- | --    |
| 2  | 4-6      | -- | --    |
| 3  | 7-9      | 1  | 33.33 |
| 4  | Above 10 | 2  | 66.67 |
| 5  | Total    | 3  | 100   |

### Education

| No | Education               | No | %     |
|----|-------------------------|----|-------|
| 1  | Elementary level        | -- | --    |
| 2  | Secondary level         | -- | --    |
| 3  | Certificate             | -- | --    |
| 4  | Diploma                 | -- | --    |
| 5  | First Degree            | 2  | 66.67 |
| 6  | Second degree and above | 1  | 33.33 |

|   |       |   |     |
|---|-------|---|-----|
| 7 | Total | 3 | 100 |
|---|-------|---|-----|

### Marital status

| No | Marital   | No | %   |
|----|-----------|----|-----|
| 1  | Married   | 3  | 100 |
| 2  | Unmarried | -- | --  |
| 3  | Widowed   | -- | --  |
| 4  | Divorced  | -- | --  |
| 5  | Total     | 3  | 100 |

The above table indicates that respondents information, as indicated in second part of this table, a total of 3 coaches were involved in the study. Moreover, their information was analyzed as below regarding the sex of respondents 3(100%) of coaches are male. Regarding age 2(66.67%) of coaches were aged between 26-35 years and the rest 1(33.33%) of coach was aged between 37-49 years. Item regarding experience 2(66.67%) of coaches have 7-9 years of experience and only 1(33.33%) of coach has above 10 years of experience. regarding education 2(66.67%) of coaches were completed first degree whereas, 1(33.33%) of coach have above second degree. The last item regarding marital status all 3(100%) of coaches respondents were get married.

## 4.2 Presentation and Discussion of Data from the athletes Questionnaires

### 1. How did you decide to join the long distance event?

| No | Rating Responses             | No | %     |
|----|------------------------------|----|-------|
| 1  | By school teachers influence | 12 | 19.67 |
| 2  | with my own interest         | 14 | 22.95 |
| 3  | by my family influence       | 8  | 13.11 |

|   |                           |    |       |
|---|---------------------------|----|-------|
| 4 | by seeing famous athletes | 27 | 44.26 |
| 5 | Total                     | 61 | 100   |

The above table indicates that 27(44.26%) of athletes respondent were decided to join long distance by seeing famous athletes. whereas 14(22.95%) of respondent athletes were decided to join with their own interest while 12(19.67%) and 8(13.11%) of athletes respondent were join long distance by their school teacher influence and by their family influence respectively. Most of the athlete decided to join long distance by seeing famous athletes of the distance.

### 2. Do have any benefit after you became the member of the national team?

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | Yes              | 58 | 96.72 |
| 2  | No               | 3  | 4.91  |
| 3  | Total            | 61 | 100   |

The above table shows that 58(96.72%) of athletes respondent were got benefit after became a member of national team. whereas the rest 3(4.91%) of athletes respondents haven't got any benefit after a member of national team. So most athletes of long distance were benefited after became a member of national team.

### 3. If you say "yes" in the above QNo"2" what are the advantages?

| No | Rating Responses      | No | %   |
|----|-----------------------|----|-----|
| 1  | Shoes, spikes, shorts | -- | --  |
| 2  | Gymnasium, track      | -- | --  |
| 3  | Salary                | -- | --  |
| 4  | I have got all        | 58 | 100 |
| 5  | Total                 | 58 | 100 |

The above table 3 indicates that 58(100%) of athletes respondent have got shoes, spikes, shorts, Gymnasium, track and salary when there are a member of national team. most of the athletes are benefited or have got advantage after became a member of national team.

**4. How do you evaluate the supervision and follow up of the athletics federation to the athletes?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | Very high        | 1  | 1.63  |
| 2  | High             | 9  | 14.75 |
| 3  | Low              | 39 | 63.93 |
| 4  | Noting           | 12 | 19.67 |
| 5  | Total            | 61 | 100   |

The above table 4 shows 39(63%) of athletes respond supervision and follow up of athletics federation were low whereas 12(19.67%) of athletes respond athletics federation were not follow the athletes. 9(14.75%) of athletes respond the supervision and follow up of athletics federation were high and only (1.163%) athlete respond the supervision and follow up athletics federation were very high. Most athlete respondents were response that the supervision and follow up of athletics federation were very low.

**5. How do you rate the allowance you get during the training?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | more than enough | 3  | 4.91  |
| 2  | Enough           | 27 | 44.26 |
| 3  | Not enough       | 31 | 50.81 |
| 4  | Total            | 61 | 100   |

The above table 5 indicates that 31(50.81%) of athlete respondents rates the allowance give during training was not enough and 27(44.26%) of athlete respondents rates the allowance given during training was enough whereas the rest 3(4.91%) of athletes respondent are rate the allowance given during training was more than enough. As most athlete responses the allowance given during training was not enough.

**6. How many months you train on the track in a year?**

| No | Rating Responses | No | % |
|----|------------------|----|---|
|----|------------------|----|---|

|   |              |    |       |
|---|--------------|----|-------|
| 1 | 1-3 months   | 28 | 45.90 |
| 2 | 4-6 months   | 21 | 34.42 |
| 3 | 7-9 months   | 7  | 11.47 |
| 4 | 10-12 months | 5  | 8.19  |
| 5 | Total        | 61 | 100   |

The above table 6 shows that 28(45.90%) of athletes respondents were dotraining on the track less than three months in a year. 21(34.42%) of athletes respondent were spent on track from 4-6 months in a year. 7(11.47%) of athletes respondent were spent on track 7-9 months in a year. The rest 5(8.19%) of athletes respondent were do their training 10- 12 months in a year. The majority of athletes were train on track less than three months in a year.

#### **7. How many days you involve in training per week.**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | 3 days           | 7  | 11.47 |
| 2  | 4 days           | 9  | 14.75 |
| 3  | 5 days           | 17 | 27.86 |
| 4  | 6 days           | 28 | 45.90 |
| 5  | Total            | 61 | 100   |

The above table 7 indicates that 28(45.90%) of athletes respondent have involved in training six day per week. 17(27.86%) of athletes have been involved in training five day per week. Whereas 9(14.75%) and 7(11.47%) of athletes respondent have involved intraining four days and three days per week respectively. Most athletes of national team have been involved in training six days per week.

#### **8.How do you evaluate your relation with your friends and coaches?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | High             | 24 | 39.34 |
| 2  | Moderate         | 21 | 34.42 |
| 3  | Low              | 14 | 22.95 |
| 4  | nothing          | 2  | 3.27  |

|   |       |    |     |
|---|-------|----|-----|
| 5 | Total | 61 | 100 |
|---|-------|----|-----|

The above table eight shows that 24(39.34%) of athletes respondent have high relation with their coaches and friends. 21(34.42%) of athletes respondent have moderate relation with their coaches and friends. And 14 (22.95%) of athletes respondent have low relation with their coaches and friends. The rest 2 (3.27%) of athletes respondent have no relation with their friend and coaches. Most athletes have high relation with their coaches and friends.

### 9. To what extent the moral you get from your coach?

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | More than enough | 13 | 21.31 |
| 2  | Enough           | 21 | 34.42 |
| 3  | Not enough       | 27 | 44.26 |
| 4  | Total            | 61 | 100   |

The above table nine shows that 27(44.42%) of athletes respondent haven't got enough encouragement from coach. 21(34.42%) of athletes respondents have got enough moral encouragement from coach. And the rest 13(21.31%) of athletes respondent have got encouragement more than enough. Majority of athletes' respondent haven't got enough encouragement from their coach.

### 10. How do you evaluate doing practice on the track?

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | Very High        | 18 | 29.51 |
| 2  | High             | 34 | 55.74 |
| 3  | Low              | 7  | 11.47 |
| 4  | not good         | 2  | 3.26  |
| 5  | Total            | 61 | 100   |

The above table ten shows that 34(55.74%) of athletes respondent have shown high effort on track while practicing. 18(29.51%) of athletes respondent have shown very high effort on track

and 7(11.47%) of athletes have low effort on track. The rest 2(3.26%) of athletes have less effort on track. Most athletes have shown high effort on track while practicing at national team.

**11. How do you attend your training session?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | regularly        | 22 | 36.07 |
| 2  | sometimes        | 39 | 63.93 |
| 3  | not at all       | -- | --    |
| 4  | other            | -- | --    |
| 5  | Total            | 61 | 100   |

The above table eleven indicates that 39(63.93%) of athletes respondent attend their training sometimes. 22(36.07%) of athletes respondent attend training regularly. Most athletes of national team attend their training occasionally or sometime.

**12. What reason prevents the athletes not to attend the training at national team regularly?**

| No | Rating Responses             | No | %     |
|----|------------------------------|----|-------|
| 1  | less access of competition   | 41 | 67.21 |
| 2  | quality of coach             | 11 | 18.03 |
| 3  | suitability of training area | 9  | 14.76 |
| 4  | Other                        | -- | --    |
| 5  | Total                        | 61 | 100   |

The above table twelve shows that 41(67.21%) of athletes respondent said less access of competition at national team can prevent them not to attend the training regularly. 11 (18.03%) of athletes respondent said quality of coach can prevent them not to attend their training regularly. And the rest 9(14.76%) of athletes respondent said they are absent from training because of unsuitable training area. Most athletes of national team are not attending their training regularly because of less access of personal competition at national team.

**13. How do you evaluate effectiveness of training at national team?**

| No | Rating Responses | No | % |
|----|------------------|----|---|
|----|------------------|----|---|

|   |               |    |       |
|---|---------------|----|-------|
| 1 | High          | 22 | 36.07 |
| 2 | Moderate      | 19 | 31.15 |
| 3 | Low           | 14 | 22.95 |
| 4 | I didn't know | 5  | 8.20  |
| 5 | Total         | 61 | 100   |

The above table thirteen shows that 22(36.07%) of athletes respondent said the effectiveness of training at national team was high. 19(31.15%) of athletes respondents said the effectiveness of training at national team was moderate and 14(22.95%) of athletes respondent said the effectiveness of training at national team was low. Rest 5(8.20%) of athletes responded they didn't know. Most athletes believe that training at national team was high.

#### 14. Do you have a nutrition expert?

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | Yes              | -- | --    |
| 2  | No               | 37 | 60.66 |
| 3  | I didn't know    | 24 | 39.34 |
| 4  | Total            | 61 | 100   |

The above table fourteen shows that 37(60.66) of athletes respondents said that they haven't nutrition experts in national team whereas, the rest 24 (39.34%) of athletes responded that they didn't know whether there is a nutritional expert or not. Most athletes of national team of long distance responded they haven't nutrition experts in national team.

#### 15. How do you rate the impact of lacking nutrition expert on your performance?

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | High             | 23 | 37.71 |
| 2  | moderate         | 21 | 34.42 |
| 3  | Low              | 11 | 18.03 |
| 4  | I don't know     | 6  | 9.84  |
| 5  | Total            | 61 | 100   |

The above table fifteen shows that 23(37.71%) of athletes respondent said that the impact of lacking nutrition expert on performance was high. 21(34.42%) of athletes respondent said that the impacts of lacking nutrition expert on performance was moderate. 11(18.03%) of athletes respondent said the impact of lacking nutrition expert was low. The rest 6(9.84%) of respondents didn't know whether it has impact or not. Most athletes respondent believe that lacking of nutrition expert at national team was affected their performance.

**16. Does different personal competition affect your preparation for world championship and Olympic game?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | Yes              | 39 | 63.93 |
| 2  | No               | 22 | 36.07 |
| 3  | Total            | 61 | 100   |

The above table sixteen shows that 39(63.93%) of athletes respondent said that different personal competition affect their preparation for world champion and Olympic game. 22(36.07%) of athletes said that different personal competition doesn't affect their preparation for world champion and Olympic game. Most athletes respond different personal competition affect their preparation for world champion and Olympic game.

**17. How do you rate the suitability of track?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | High             | 12 | 19.67 |
| 2  | moderate         | 20 | 32.79 |
| 3  | Low              | 25 | 40.98 |
| 4  | I can't decide   | 4  | 6.56  |

|   |       |    |     |
|---|-------|----|-----|
| 5 | Total | 61 | 100 |
|---|-------|----|-----|

The above table seventeen indicates that 25(40.98%) of athletes respondent said that suitable of track while training was low. 20(32.79%) of athletes respondent said they have feeling moderate comfort when do training whereas 12(19.67%) of athletes respondent said they have feeling high comfort when practicing on track. the rest 4(6.56%) of athletes respondent cant decided whether the track was comfortable or not. Majority of athletes were not feeling comfort when do training on running track.

**18. Do all athletes have equal chance of being selected for world championship and Olympic game?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | Yes              | 27 | 44.26 |
| 2  | No               | 29 | 47.54 |
| 3  | I didn't know    | 5  | 8.20  |
| 4  | Total            | 61 | 100   |

The above table eighteen shows that 29(47.54%) of athletes respondent said they have no equal chance of being selected. 27(44.26%) of athletes respondent said they being equal chance of selected whereas 5(8.20%) of athletes respondent said they didn't know whether they have equal chance of being selected or not. Most athletes respond they haven't equal chance of being selected for world championship and Olympic game.

**19. does recently the track competition of 5000&10000m has been decreasing?**

| No | Rating Responses | No | %   |
|----|------------------|----|-----|
| 1  | Yes              | 61 | 100 |
| 2  | No               | -- | --  |
| 3  | I didn't know    | -- | --  |
| 4  | Total            | 61 | 100 |

The above table nineteen shows that 61(100%) of athletes respondent said that recently track competition of 5000m and 10000m at world level have been decreasing. Almost all athletes respondent said track competition of 5000m&10000m at world level has been decreasing.

**20. Howdo you rate the impacts of decreasing number of competition on the result of Ethiopia?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | very high        | 43 | 70.49 |
| 2  | High             | 18 | 29.51 |
| 3  | Low              | -- | --    |
| 4  | very low         | -- | --    |
| 5  | Total            | 61 | 100   |

The above table twenty shows that 43(70.49%) of athletes respondent said declining the access of competition at world level can affect the result of Ethiopia was very high. 18(29.51%) of athletes respondents said less access of competition can affect the result of Ethiopia highly. Most athletes said declining number of competition at world level can affect the result of Ethiopia veryhigh.

**4.3. Presentation and Discussion of Data from the coaches Questionnaires**

**1. Course that you have in coaching athletics.**

| No | Rating Responses      | No | %   |
|----|-----------------------|----|-----|
| 1  | First level           | -- | --  |
| 2  | Second level          | -- | --  |
| 3  | IAAF first            | -- | --  |
| 4  | IAAF second and above | 3  | 100 |
| 5  | Total                 | 3  | 100 |

The above table one indicate that 3(100%) of coaches respondent have second IAAF and above course at coaching athletics. All coaches respondent have second IAAF and above course at coaching athletics.

**2. How do you rate your competence or knowledge of coaching long distance athletes of the team?**

| No | Rating Responses | No | %   |
|----|------------------|----|-----|
| 1  | High             | 3  | 100 |
| 2  | Moderate         | -- | --  |
| 3  | Low              | -- | --  |
| 4  | Total            | 3  | 100 |

The above table shows that 3(100%) of respondent coaches have high coaching competence and knowledge at national team. Almost all coaches of national team of long distance have high coaching competence and knowledge.

**3. In your opinion are the long distance athletes interested in their event?**

| No | Rating Responses | No | %   |
|----|------------------|----|-----|
| 1  | Yes              | 3  | 100 |
| 2  | No               | -- | --  |
| 3  | I didn't know    | -- | --  |
| 4  | Total            | 3  | 100 |

The above table three shows 3(100%) of coaches' respondent believe that athletes of 5000m&10000m have interest toward their event. All coaches believe their athletes have interest toward their event.

**4. How do you rate the motivation of your athletes?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | High             | 2  | 66.67 |
| 2  | Moderate         | 1  | 33.33 |
| 3  | Low              | -- | --    |
| 4  | Total            | 3  | 100   |

As the above table four indicates 2(66.67%) of coaches respondent rates of their athletes motivation was high whereas 1(33.33%) of coach respondent said motivation of his athletes was moderate.

**5. Are there appropriate facilities and equipment for the national team of long distance?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | Yes              | 1  | 33.33 |
| 2  | No               | 2  | 66.67 |
| 3  | I didn't know    | -- | --    |
| 4  | Total            | 3  | 100   |

The table five indicates 2(66.67%) of coaches respondent said no appropriate facilities and equipment for long distance whereas 1(33.33%) of coaches there is appropriate facilities in long distance. Most coaches respond their facility and equipment available at national team.

**6. How do you rate suitability of track for training?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | High             | -- | --    |
| 2  | Moderate         | 1  | 33.33 |
| 3  | Low              | 2  | 66.67 |
| 4  | Total            | 3  | 100   |

As above table indicates that 2(66.67%) of coaches respond the track at training area was not suitable for training. 1(33.33%) of coaches respond the suitability of track was moderate. Majority of coaches respond the track was not suitable for training.

**7. Do you have annual, monthly and weekly training plan?**

| No | Rating Responses | No | %   |
|----|------------------|----|-----|
| 1  | Yes              | 3  | 100 |
| 2  | No               | -- | --  |

|   |       |   |     |
|---|-------|---|-----|
| 3 | Total | 3 | 100 |
|---|-------|---|-----|

As the above table seven 3(100%) of coaches respondent have annual, monthly and weekly training plan. All coaches of 5000m&10000m have annual, monthly and weekly training plan.

**8. How do you rate the effectiveness of you training plan?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | High             | 2  | 66.67 |
| 2  | Moderate         | 1  | 33.33 |
| 3  | Low              | -- | --    |
| 4  | Total            | 3  | 100   |

The above table eight shows 2(66.67%) of coaches responded that effectiveness of their training was high whereas 1(33.33%) of coaches respond effectiveness of training was moderate. Most coaches said effectiveness of their training was high.

**9. How do you rate the supervision and follow up of athletics federation at training site?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | High             | -- | --    |
| 2  | Moderate         | 2  | 66.67 |
| 3  | Low              | 1  | 33.33 |
| 4  | Total            | 3  | 100   |

The above table nine shows 2(66.67%) of coaches respond that the supervision and follow up athletics federation was moderate whereas 1(33.33%) of coaches said follow up of athletics federation was low. Most coaches said the supervision and follow up of athletics federation was moderate.

**10. How do rate lack of nutrition expert on athlete's performance?**

| No | Rating Responses | No | %     |
|----|------------------|----|-------|
| 1  | High             | 2  | 66.67 |

|   |          |    |       |
|---|----------|----|-------|
| 2 | Moderate | 1  | 33.33 |
| 3 | Low      | -- | --    |
| 4 | Total    | 3  | 100   |

The above table ten shows 2(66.67%) of coaches respond that lack of nutrition expert could affect the performances of athletes high whereas 1(33.33%) of coaches respond that the impact of nutrition expert was moderate. Most coaches said the impact of nutrition expert on athlete's performance was high.

#### **11. How do you rate athletes attending training at national team?**

| No | Rating Responses | No | %   |
|----|------------------|----|-----|
| 1  | High             | -- | --  |
| 2  | Moderate         | 3  | 100 |
| 3  | Low              | -- | --  |
| 4  | Total            | 3  | 100 |

As the above table eleven shows 3(100%) of coaches respond that there athletes attending the training was moderate. All coaches said there were attend their training occasionally.

#### **12. How do you evaluate mechanism of your selection of athletes for world championship and Olympic game?**

| No | Rating Responses | No | %   |
|----|------------------|----|-----|
| 1  | Good             | 3  | 100 |
| 2  | Moderate         | -- | --  |
| 3  | Bad              | -- | --  |
| 4  | Total            | 3  | 100 |

The above table indicates 3(100%) of coaches respondent said mechanism of selection athletes for world championship and Olympic Games was good. All coaches believe mechanism of their selection was good.

**13. does recently the track competition of 5000&10000m has been decreasing?**

| No | Rating Responses | No | %   |
|----|------------------|----|-----|
| 1  | Yes              | 3  | 100 |
| 2  | No               | -- | --  |
| 3  | I didn't know    | -- | --  |
| 4  | Total            | 3  | 100 |

The above table thirteen shows that 3(100%) of coaches respondent said that recently track competition of 5000m and 10000m at world level have been decreasing. All coaches respondent said track competition of 5000m&10000m at world level has been decreasing.

**14. How do you rate the impacts of decreasing number of competition on the result of Ethiopia?**

| No | Rating Responses | No | %   |
|----|------------------|----|-----|
| 1  | very high        | 3  | 100 |
| 2  | High             | -- | --  |
| 3  | Low              | -- | --  |
| 4  | very low         | -- | --  |
| 5  | Total            | 3  | 100 |

The above table indicate that 3(100%) of coaches respondent said decline number of completion could affect the result of Ethiopia. all coaches said less access of track competition could affect the result very high.

**4.4. Interpretation and discussion of interview**

The interview was made with one technical director of athletics federation. The following texts are the extracts of from the response given by the technical director in the first question;technical director was asked how they evaluate their supervision and follow upthe training process of the national team of long distance. Then he said that he provide regular follow up and super vision

for training process of national team of long distance but the follow up and supervision was not enough because of less human power at athletics federation. For the second question their evaluation on education, qualification and experiences of national team he said we have selected high experienced coaches from the staff of coaches and they are well educated coaches we have at national team of long distance. Third question how do they evaluate the suitability of track. The track we have for competition and training is only one which is located at legehar. The track needs renewal and currently isn't suitable for training. Four question their evaluation on mechanism of selection of athletes for world championship and Olympic Games, he said we have giving equal chance for all athletes to represent their country and we technical committee who have done this responsibly. Responses on the major challenges of training site that influences the performances of long distance athletes the technical director said that most athletes were not attending regularly and came to national team when the international competition reaches. Also less access of competition the most athletes changes their field to road race. As Thought of director of athletics federation on cause of decline result of 5000m and 10000m at world champion and Olympic games. He said that the cause declining result was:-

- Less access of competition on track
- Most athletes change their events.
- Giving Less emphasis for track competition
- Most of the time athletes weren't attend training at national team
- The matter commercialism in sport

The other questions number seven, were his level of satisfaction with regard to interpersonal relationship with the coach and athletes of national team. Then he said that smooth relationship with the coach is very important for the development of athletes. Therefore, I have good relationship with the coach. I have also good relationship with all the athletes of national team.

Therefore, from the above response it can be concluded that the technical director athletics federations has good interpersonal relationships with the athlete and with the coach.

#### **4.5. Interpretation and Discussion of practical observation**

The field observation was made at Addis Ababa stadium during training sessions. I observe the

Interpersonal relationships of the players during practical training in most cases, the practical training sessions are conducted for an hour and half six days a week. At this time the researcher observed the following points.

- The player relationship and interpersonal skills
- The coaching ability and communications at practice session
- The personal characteristics
- Coaching style/ coaching behavior
- There is mutual respect among the athletes and athletes and coach
- The coach treats all player equally and fairly:
- The coach did not give immediate feedback while the athlete runs over pace
- coach provide Good Encouragements for athletes
- Less follow up and supervision of athletics federation

The other observation was on the effectiveness of training; coach's ability and communications during practical session I observed he uses fair and consistent criteria in judging athletes skill levels and at meetings, he gives all team members a chance to make their opinions known. However, the coach attempts to ensure players are prepared physically, mentally for each competition. I observe the coaches were giving encouragement when the athlete performs well. The researcher observe the suitability of track; the track was not suitable for athletes roughness and rigidity particularly lane one damaged more and may cause injury. Also rigidity of track exposed athletes for injuries and hamstring and difficult to do training on track as needed. Other observation was made on mechanism of athlete's selection for world champion and Olympic Games. The selection of athletics federation were not give equal chance for all athletes for instance winner 5000&10000m at 44<sup>th</sup> Ethiopia athletics champion were not invited to run for "minima time" or trial time and were not sent abroad. Other observation was on decreasing access of competition at world level. The researcher observed that less access of track competition even at diamond league. In former golden league there were much more competitions access.

#### **4.6. Discussion of the findings**

As in indicated in the interpretations the following points are mentioned as causes of decline the result of 5000m&10000m at world championship and Olympic game. As the result, trainee athletes revealed serious problems as of follow up and supervision of athletics federation. Less suitability of training track, less access of competition for 5000m and 10000m athletes. Lack of appropriate selection mechanism of athletes' for world championship and Olympic game. Lack of nutrition expert. From this notion, it is so easy to understand that there was consistency of views on the part the respondents. At the juncture, it is also important to remind that considerable numbers of respondents were complaining about the selection of athletes for world championship and Olympic game. For instance winner 5000&10000m at 44<sup>th</sup> Ethiopia athletics champion were not invited and were not sent abroad to run for "minima time" or trial run. This indicates that there were no equal chance of being selected of athletes for world championship and Olympic game.

Lacking of nutrition expert was other cause of declining result.

*"Rational diet can improve athletic fitness in endurance sport by 7% (Janssen,2001).carbohydrate rich diet for endurance athletes slows down the heart rate by 7 times per minutes."* *"If you want to become faster, stronger, and more flexible, pay attention to the food that you eat" Kaunas 2012; sports coaching basics.*

Optimal nutrition is the key to peak performance on and off the field, because food provides essential nutrients necessary to build and maintain a strong body.

Regarding competition majority of respondent were changed their event because the current track competition have been decreasing at different meeting like diamond league. Commercialism in athletics sport and the matter of survive could affect the athletes not to give emphasis for track rather than road race.

*The incentives have given were not enough for athletes of national team. The last but not least hindering factor was found to be, "Lack of sufficient incentives and motivation". In line with, Hone Borne, et al, 2001 stated that motivation is, "the internal mechanism and external stimuli which arose and direct our behavior". Well, motivational role could not be neglected. This is also indicated by many respondents` that rewards such as badges, medals prize money... etc should be accessible for those athletes who perform well in the training and completion by classifying them, "Athlete of the month, champion athlete of the race...etc".*

## **CHAPTER FIVE**

### **5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1. Summary**

The objective of this paper was to study the cause of decline result of Ethiopia at world championship and Olympic Games. In order to achieve the objective sixty one athletes, one head coach and two coaches and one technical director of athletics federation were participated. The required data were gathered through questionnaire, interview and field observation. In the second chapter of the study the review of related literatures and related works were presented to get basis for the discussion of the findings. They deal with issue in contents of methodology of coaching, talent identification and selection and nutrition and endurance performance were analyzed. In the third chapter the method of data collection; sampling technique was presented and analyzed. In fourth chapter the results from questionnaires were tabulated and frequency and percentages were calculated. For the data from few sample subjects, only the frequency on their response was used in analysis. Literatures from different scholars were used to strengthen the relevancy of the analysis and arguments in the study. Finally the findings are presented as follows:

- 1.** Majority of the participant athletes were encouraged by the coach to improve confidence, Close and informal relationships;
- 2.** From the findings obtained through the questionnaire, athletes in the study seem to have Positive relationship with athletes and the coach.

3. Almost all (96.72%) athletes of national in the study have got benefit after became a member of national team but the benefit was not enough.
4. out of 61(63.93%) respondent athletes replied that the follow up and supervision of athletic federation was low only (14%) of the athletes' respondents replied follow up of federation was high. Most students replied follow up of athletics federation was low.
5. Out of 61 athletes 39(63.93%) of athletes replied they attend the training at national time occasionally. The rest 22(36.07%) of athletes replied they attend training regularly. Most athletes in the study were not attend the training regularly.
6. Most 22 (36.07%) of the participant athletes responded the training at national team was very high effective while 19(31.15%) athletes were replied the training was highly effective.
7. Majority of the athletes,23 (37.71%) said the impacts of nutrition expert on their performance high whereas 21(34.42) athletes said moderate. The rest (18.03%) and (9.84) said low and didn't know respectively.
8. The majority of athletes 25(40%) replied the suitability of track for training was low whereas 20 (32.79%) of athletes said suitability of track was moderate.
9. Majority 29(47.54%) athletes replied they haven't equal chance of being selected for world championship and Olympic game.
10. Most athletes 61(100%) of the participant replied decreasing access of track competition make them to change their distance and give emphasis for road races.

## **5.2 Conclusion**

Based on the findings of the study the following conclusions are reached.

The study showed that most athletes agreed the coach contributes positively to the moral and spirit of the athletes. The study also showed that there is somewhat a positive relationship among each athletes, coach with athletes of national team.

- Almost all athletes are benefited after became a member of national team. The supervision and follow up of athletics federation at training area was low.
- In addition to this, the study indicated that most of participant athletes said they didn't follow their training at national team regularly.
- Most athletes believe that the training at national team was effective and well improving the performance of athletes
- Most athletes replied that there was no nutrition expert in national team and the impact of lacking those experts negatively affect their performance.

- Most athletes respond that the suitability of training track was low and hindering their training not to train as they need.
- Almost all athletes' respondent said that they don't believe they have equal chance of being selected for world champion and Olympic Games.
- Currently the access of 5000m&10000m track competition becoming less at different world meeting.

### **5.3 Recommendations**

Based on the gathered data, the following recommendations were forwarded.

- ✓ The Ethiopian athletics federation should review the benefit gives for athletes of national team long distance.
- ✓ Athletics federation should make open discussion with athletes why they aren't following the training regularly. Also must create wide opportunity for them not to change their events to road race.
- ✓ Athletics federation must provide nutrition expert for national team. B/c the athletes faced many difficulties when compete at abroad regarding different eating habit of other country.
- ✓ Training track was not suitable for well training, this can hinder the athletes not to train as desired and exposed them to injury so some repair should be needed to make safe and comfortable.
- ✓ Equal chances of being selected must respected and appropriate and fair selection should be followed.
- ✓ More access of competition should be prepared for athletes of 5000m&10000m b/c the number of competition on track has been decreasing.
- ✓ Appropriate incentive should be prepared for athletes of national teams of long distance.
- ✓ Athletics federation should make follow up and supervision for athletes of national team long distance. Continuous follow up makes as give immediate solution for different problems.

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## APPENDIX 1

### ADDIS ABABA UNIVERSITY DEPARTMENT OF SPORT SCIENCE

**Purpose of research:-** the purpose of this research is to identify the cause of decline result of 5000m and 10000m in world championship and Olympic game and put possible solution for the problem.

**Direction:** - 1. Don't write your name  
2. Your response to these questioners is very important for this research finding paper so please write your response carefully.

**Part one:- 1. Sex:** Male  Female

**2. age:** 17-25  26-35  41-50  above 50

**3. Education:** primary school  secondary school  certificate   
diploma  BA degree  MA degree & above

**4. Training age:** 1-3 years  4-6  7-9  10years & above

**5. Marital status:** married  unmarried  widowed  divorced

#### Respondent athletes

##### 1. How did you decide to join the long distance event?

- a. by school teachers influence
- b. with my own interest
- c. by my family influence

d. by seeing famous athletes

**2. Do have any benefit after you became the member of the national team?**

a. Yes

b. No

**3. If you say “yes” in the above QNo“2” what are the advantages?**

a. Shoes, spikes, shorts

b. Gymnasium, track

c. salary

d. I have got all

**4. How do you evaluate the supervision and follow up of the athletics federation to the athletes?**

a. Very high

b. High

c. Low

d. Noting

**5. How do you rate the allowance you get during the training?**

a. more than enough

b. enough

c. Not enough

**6. How many months you train on the track in a year?**

a. 1-3 months

b. 4-6 months

c. 7-9 months

d. 10-12 months

**7. How many days you involve in training per week.**

a. 3 days

b . 4 days

c. 5 days

d. 6 days

**8. How do you evaluate your relation with your friends and coaches?**

a. High

b. Moderate

c. Low

d. nothing

**9. To what extent the moral you get from your coach?**

- a. More than enough
- b. Enough
- c. Not enough

**10. How do you evaluate doing practice on the track?**

- a. Very High
- b. high
- c. low
- d. not good

**11. How do you attend your training session?**

- a. regularly
- b. sometimes
- c. not at all
- d. other

**12. What reason prevents the athletes not to attend the training at national team regularly?**

- a. less access of competition
- b. quality of coach
- c. suitability of training area
- d. other

**13. How do you evaluate effectiveness of training at national team?**

- a. High
- b. Moderate
- c. Low
- d. I didn't know

**14. Do you have a nutrition expert?**

- a. yes
- b. no
- c. I didn't know

**15. How do you rate the impact of lacking nutrition expert on your performance?**

- a. high
- b. moderate
- c. low
- d. I don't know

**16. Does different personal competition affect your preparation for world championship and Olympic game?**

a. yes

b. no

**17. How do you rate the suitability of track?**

a. high                      b. moderate

c. low                        d I can't decide

**18. Do all athletes have equal chance of being selected for world championship and Olympic game?**

a. yes

b. no

c. I didn't know

**19. does recently the track competition of 5000&10000m has been decreasing?**

a. yes

b. no

c. I don't know

**20. How do you rate the impacts of decreasing number of competition on the result of Ethiopia?**

a. very high

b. high

c. low

d. very low



d. IAAF second and above

**2. How do you rate your competence or knowledge of coaching long distance athletes of the team?**

a. High

b. Moderate

c. Low

**3. In your opinion are long distance athletes interested in their event?**

a. yes

b. no

c. I don't know

**4. How do you rate the motivation of your athletes?**

a. High

b. Moderate

c. Low

**5. Are there appropriate facilities and equipment for the national team of long distance?**

a. yes

b. no

c. I don't know

**6. How do you rate suitability of track for training?**

a. high

b. moderate

c. low

**7. Do you have annual, monthly and weekly training plan?**

a. yes

b. no

**8. How do you rate the effectiveness of you training plan?**

a. high

b. moderate

c. low

**9. How do you rate the supervision and follow up of athletics federation at training site?**

a. high

b. moderate

c. low

**10. How do rate lack of nutrition expert on athlete's performance?**

a. high

b. moderate

c. low

**11. How do you rate athletes attending training at national team?**

a. high

b. moderate

c. low

**12. How do you evaluate mechanism of your selection of athletes for world championship and Olympic game?**

a. good

b. moderate

c. bad

**13. does recently the track competition of 5000&10000m has been decreasing?**

a. yes

b. no

c. I don't know

**14. How do you rate the impacts of decreasing number of competition on the result of Ethiopia?**

a. very high

b. high

c. low

d. very low

**APPENDIX 3**  
**ADDIS ABABA UNIVERCITY**  
**DEPARTMENT OF SPORT SCIENCE**

**Purpose of research:-** the purpose of this research is to identify the cause of decline result of 5000m and 10000m in world championship and Olympic game and put possible solution for the problem.

**Direction:** - 1. Don't write your name  
2. Your response to this interview is very important for this research finding paper so please write your response carefully.

- Part one:-**
- 1. Sex:** male  female
- 2. age:** 17-25  26-35  41-50  above 50
- 3. Education:** primary school  secondary school  certificate   
diploma  BA degree  MA degree & above
- 4. Experiences:** 1-3 years  4-6  7-9  10years & above
- 5. Marital status:** married  unmarried  widowed  divorced

**Interview for athletics federation officers**

1. How do you evaluate, supervise and follow up the training processes of the national team of the long distance?-----  
-----  
-----

2. How do you evaluate the educational qualification and experience of coaches in the training site?-----

-----  
-----

3. what are the major challenges of the training sites that influence the performances of Long distance athletes?-----

-----  
-----

4. How do you evaluate select ion of athletes for world championship and Olympic game ?-----

-----  
-----  
-----

5. How do you evaluate the motivation of athletes to join national team to prepare them for different competition?-----

-----  
-----  
-----

6. If any comment to be left-----

-----  
-----  
-----  
-----

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**Observation check list**

**Item rates**

**Very good = 5      good = 4      medium = 3      poor = 2      very poor =1**

**Put “x” in spaced provided**

| <b>No</b> | <b>Contents</b>                     | <b>Very good</b> | <b>good</b> | <b>medium</b> | <b>poor</b> | <b>Very poor</b> |
|-----------|-------------------------------------|------------------|-------------|---------------|-------------|------------------|
| <b>1</b>  | Motivation of athletes on training  |                  |             |               |             |                  |
| <b>2</b>  | Coaches encouragement               |                  |             |               |             |                  |
| <b>3</b>  | Effectiveness of training           |                  |             |               |             |                  |
| <b>4</b>  | Supervision of athletics federation |                  |             |               |             |                  |
| <b>5</b>  | Method of athletes selection        |                  |             |               |             |                  |
| <b>6</b>  | Reduction of competition            |                  |             |               |             |                  |
| <b>7</b>  | Suitability of track for training   |                  |             |               |             |                  |

**Date -----**

**Signature-----**

## **DECLARATION**

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

**Name:- Tesfaye Negewo**

**Signature:- -----**

**Date:- -----**

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

**Name:- Meberatu Belay (Ass.pro.)**

**Signature:- -----**

**Date:- -----**

