Athletic Performance as a Function of Locus of Control and Personality Characteristics among Ethiopian Athletes

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Abstract

The purpose of the study was to investigate the relationship of athletic performance with locus of control and personality characteristics among Ethiopian athletes. It was also aimed to examine the existing counseling intervention mechanisms employed to enhance athletic performance in the study sites. Among 225 total samples who were selected from 10 sport clubs using simple random sampling, only 208(64 from short distance running, 74 of middle distance running and 70 of long distance runners) completed and return back the questionnaires. 10 Coaches were also selected purposively from the sport clubs. After Pilot study was conducted, a questionnaire consisting of demographic items, modified Rotter's internal-external locus of control and Big five personality inventory was employed. Semi- structured interview guiding questions was also used in the study. The collected data was analyzed through Pearson product moment, t-test, and multiple regression analysis techniques. The open-ended questions and interview responses were qualitatively analyzed. The quantitative analysis showed that those athletes with high neuroticism and agreeableness scored low athletic performance at a significant level at 200m and 400m events respectively. Athletes with high external locus of control also perform low at a significant level at 3000m event. Those participants with high internal locus of control scored low athletic performance at short and middle track events. There was no significance difference between male and female athletes on locus of control and conscientiousness at all running events. Locus of control and personality characteristics were not able to explain the variations in best performance time of athletes at significant level at all running events. However, demographic variables were able to explain the variance in best performance time significantly at short track events. The qualitative result also point out that athletes encounter copious problems related to psychological, health, lack of resources, etc. More specifically, wrong beliefs on "power/tinqola" was reported as a devastating factor of performance of many athletes. All respondents emphasized the relevance of counseling services for improving athletic performance and psychological wellbeing of athletes. But, there were no advanced counseling intervention mechanisms rather than giving simple advice for athletes. Based on the findings of the study conclusions were drawn and recommendations also forwarded to alleviate the existing problems and improve the Ethiopian athletes' performance.

Chapter One

1. Introduction

1.1 Background of the Study

Athletics is the natural pursuits of human beings. Some of the usual activities like walking, running, jumping and throwing are the movements which we learn first as small children. These are some of the basic abilities of all human being and every physically normal child takes a delight in doing them it is only when as we grow older that the introduction of outside influences, the football, the hacky stick and similar attachments to games, changes our attitude to the enjoyment of the basic movements (Millar & Cawley, 1960). For this reason, it is commonly considered as the king of all sport activities (EAF, 2009).

Sport activities including athletics have long past but short history in Ethiopia. With this regard, Abera (2008) described that the exact roots of Ethiopian athletics cannot be traced accurately. However, there is a belief that sport was widely practiced in schools and military before 1897. Moreover, it is widely believed that modern athletics has been originated following the start of modern education and military services.

Now a days, the field of athletics particularly track and field competitions seem to attract most peoples' attention in the world. It also seems true in Ethiopia. Even, there are many public and governmental initiatives in advancing and using these sport activities to mobilize the society for development. For instance, many athletics clubs have been established and several public participatory running programs such as Ethiopian athletics championships, Great Ethiopian Run which have been raising many objectives at each race series, education for girls race, etc. have been made more or less in all corners of the country (Millennium Run, 2007).

Even if track events (running) have been widely practiced sport activities in Ethiopia and famous athletes exist in, it is not free of problem. According to Sung (2001) athletic performance is mostly determined by factors such as physical conditions, technical, and psychological abilities. However, the role of psychology in sport does not obtain special consideration in our country. This study focuses on underlined psychological constructs of

undermined in our country. Thus, the study attempted to examine the relationships of athletic performance with locus of control and personality characteristics of athletes at short, middle and long distance running events. The existing counseling intervention mechanisms used to enhance athletic performance in the study areas have been also assessed.

1.2 Statement of the Problem

Athletics and related sport activities have immense economical, social, health, political, cultural and psychological values for nations in the world; Ethiopia in particular. Interestingly, Ethiopia is the home of the most famous track athletes in the world particularly in middle and long distance events. It is common to watch Ethiopian athletes in most Media's window during international athletics championships.

Even though Ethiopian athletes have been successful in most of long distance world championships, problems have been inevitable to occur among those athletes recently. It is not wise to assume that all Ethiopian athletes are successful and the ways are easy for them. Some of them could not keep their records in few track competitions and overwhelmed by other nations. Obviously, those short distance runners or sprinters are not effective as that of long distance athletes. Moreover, we always watch the same face on international competitions at the long distance events though the country has a rich potential in producing competent young athletes.

However, as my knowledge is concerned, there is no psychological study conducted to investigate the existing situation in the area. In support of this, Wolde and Gaudin (2008) stated that:

> *In the story of Ethiopian athletes' life, nothing –or almost- is described about the years between childhood and the age when they reach their highest level in sport competitions. The tale of their life usually states that, one day, they enter a stadium and, all of the sudden, the "raw diamonds" reveal themselves on the tracks of an official competition (p.175).*

In addition, Wondimu (2003) argued about the importance of athlete centered approach which emphasized on humanistic approach of mind-body development to the realm of sport practice essentially for the survival of olympism. This implies the relevance /importance of psychology not only to improve athletic performance rather to preserve

sport or Olympic movement. However, psychology or counseling does not obtain appropriate emphasis to contribute at least little for athletes and sport society in general in our country.

Thus, it is essential and timely to investigate how athletes perceive their environment and outcomes of their work. It is also important to examine individual differences among athletes in the area of athletics. Furthermore, examining the counseling intervention strategies used to enhance athletic performance in the study area could help us to understand the existing conditions and improve it further if any or to recommend basics of new designs.

Therefore, the study tried to examine the core of Ethiopian athletes' locus of control orientations as well as the personality characteristics and its relationship with their athletic performance. This research also tried to dig out counseling intervention mechanism used in the athletics clubs in order to enhance athletic performance.

At the end, this study endeavors to answer the following basic questions:

- Do personality characteristics (OCEANs) correlate with athletic performance?
- Does internal-external locus of control beliefs relate with athletic performance?
- Does the interrelationship between locus of control, personality characteristics (OCEAN) and athletic performance vary as function of race types?
- What kinds of counseling intervention mechanisms have been used to enhance athletic performance by coaches and counselors if any?

1.3 Objectives of the Study

a. General Objectives of the study

The ultimate purpose of this study was examining the relationship of athletic performance with locus of control and personality characteristics among Ethiopian athletes at short, middle and long distance running events. A second purpose was to explore the counseling intervention strategies used in those athletics clubs to scale up athletic performance.

b. The Specific objectives of the study are:

- Investigating the relationship between personality characteristics (OCEANs) and athletic performance.
- Examining the relationship between internal-external locus of control and athletic performance.
- Exploring the variation among the interrelationship between locus of control beliefs, personality characteristics and athletic performance by race types.
- Examining the existing counseling intervention mechanisms that have been used in those athletics clubs to enhance athletic performance.

1.4 Significance of the Study

Currently, sport activities like football playing and track and field (athletics) championships dominate people's attention almost in all parts of the continents. It has also been used as source of luxury and economic development. In this regard, Ethiopia has unexploited potential in producing distance running athletes. Therefore, this study is expected to have the following contributions in order to support this potential resource.

This study could help coaches, athletes, sport administrators and above all psychologists to design appropriate training strategies, motivate athletes and providing satisfactory psychological support based on individual differences(in terms of their psychological characteristics and performances) of athletes. For example, Sung (2001) explained that determining the athlete's psychological and physiological characteristics is an essential step to establish training plan to enhance athletics performance logically. It would also give an insight for responsible bodies about the athletes' perception of their environment

(Internal-External LOC beliefs), personality characteristics and performance across the three running events. Hence, it could be used as an outline for those psychologists and coaches to identify the type and nature of psychological support essential for athletes to improve their performance. This study highlights about the existing status of applications of counseling intervention strategies in those sport clubs. This would also provide a good implication for coaches, EAF, club administrators and athletes about the role of counseling for improving athletic performance.

1.5 Delimitation

Several psychological issues related to athletic performance draw researchers' attentions for exploration since it play decisive roles for athletes' success at various sport settings. In order to make the study more specific and manageable, this study mainly focuses on psychological constructs (such as internal-external locus of control and personality characteristics (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) and its relationship with athletic performance. This research emphasized on athletes from SDR, MDR and LDR track events. Since it was difficult to address all sport clubs, the study selected respondents from 10 known athletics sport clubs in Ethiopia at their best event.

1.6. Definition of Terms

Some terms used in the study which need further clarity have been either operationally defined or global definitions have been provided with sources which goes in line with the study.

Athlete refers to a person who participates as contestant either in training or competitions of running activities (track events).

Athletic performance: refers to the best performance time (in terms of seconds for all events) that an athlete costs to cover a certain running event as measured by self report. **Note**: As measured by self report from the respondents the shorter the best performance time the higher the performance whereas the larger/higher the best performance time the lower the performance.

Locus of control refers to"... the degree to which the individual perceives that the {outcome} follows from, or is contingent upon, his own behavior or attributes [internal] versus the degree to which he feels the {outcome} is controlled by forces outside of himself and may occur independently of his own actions [external]"(Rotter, 1966).

Personality characteristics refer to OCEANs defined by McCrae and John (1992) as: ***Openness***, *or Openness to Experience, is a general appreciation for art, beauty, imagination, adventure, unusual ideas, and variety of experience. Individuals who score high on Openness tend to be sensitive to beauty, imaginative, and intellectually curious. By contrast, individuals who score low on Openness tend to have more conventional, traditional interests.*

Conscientiousness *is a tendency towards self-discipline, devotion to duty, and drive. Individuals who score high on Conscientiousness prefer planning to spontaneity. Individuals who score low on Conscientiousness tend to be less organized and less driven to get things done.*

Extraversion *is characterized by positive emotions, energy, and engagement in the world. Individuals who score high in Extraversion seek out stimulation and the social opportunities. Conversely, individuals who score low in Extraversion (sometimes called introversion) tend to need less social stimulation and more time alone.*

Agreeableness *is a tendency towards compassion and cooperation. Individuals who score high on Agreeableness value social harmony and have an optimistic view of human nature. By contrast, individuals who score low on Agreeableness are unconcerned with others' well being and prioritize their interests over those of others.*

Neuroticism, *sometimes called Emotional Instability, is the enduring tendency to experience negative emotional states. High Neuroticism is associated with negative emotions like anxiety, anger, guilt, and depression. Conversely, individuals who score low in Neuroticism are less emotionally reactive and calmer.*

Short distance running refers to sprinters which consist of races ranging from 200m to 400m.

Long distance running refers to the races ranging from 5,000m to 10,000m.

Middle distance running means races ranging from 1,500m to 3,000m.

Chapter Two

2. Review of Related Literature

This part of the study consists of various literatures regarding variables considered in this research. It is explained and organized in the following manner.

2.1 Overview of Athletics (distance running) In Ethiopia

Ethiopia is a country found in the horn of east Africa. It has variety of topography ranging from the Rift valley lowlands to the highlands of Semien Mountains and Arsi highlands. She is endowed with several natural resources and cultural heritages including variety of ethnic diversities.

Moreover, Yohannes (n.d) elaborated that Ethiopia has been endowed with few citizens, who have unique talents, contributing remarkable outputs in various fields of arts, literature, music and mainly in track and field events. He also added that their remarkable talent and achievement has helped this country to have a special place in the Olympic arena. Some of world class Ethiopian athletes who won international athletic championships at different periods include Abebe Bikila (pioneer of black victory in Olympic champions with bare foot), Mamo Wolde, Mirus Yefter and the incredible Haile Gebresellasie, Kenenisa Bekele, Seleshi Sehin, Derartu Tulu, Berhane Adere, Fatuma Roba, Meseret Defar, Turunesh Dibaba, Egegayehu Dibaba, etc (Millennium Run, 2007). Those incredibly talented and highly recognized famous athletes, made this nation and its people very proud over time (Yohanness (n.d)). This achievement has been recognized and acknowledged time and again as a reflection of dignity, courage and refined elegance.

Athletics has been considered as the king of other sport activities since it took the first in its history (EAF, 2009). Track and field events have long history not only in Ethiopia but also in all over the world. It took the leading in its historical upbringing of various sport activities in human history since it include most ancient human activities such as walking, running, jumping etc. Many literatures pointed out that the exact date in which athletics was started remains unknown. However, modern athletics became widely introduced with prevalence of modern education and military services around the 19th century even though the exact date at which it started remains unknown. For instance, modern sport activities

including athletic competitions were conducted at schools and different military forces since 1898 (Abera, 2008; EAF, 2009).

Athletics particularly track and field events obtain great emphasis in Ethiopia in recent years. As it is one of the sport activities governmental policies and declarations have been developed over time. Following several obstacles and procedures EAF was established in 1941. Various athletic championships programs organized by EAF and private owned companies come to appear throughout the country (see Wolde & Gaudin, 2008 in detail). Moreover, plenty of athletic clubs and project have been invested by regional governments, EAF, private companies, and institutions.

Generally, some literatures call Ethiopia as running highland (e.g Millennium Run, 2007). This can be a witness to say Ethiopia and running are two faces of a coin. Indeed, Running and Ethiopia are inseparable since successful Ethiopian athletes have not been out of television screens in most of international athletic championship including Olympic Games. It implies the potential of the country in producing outsmart athletes not only in long distances but also sprinters and other track and field events who could stand our national flag and anthem in the face of the world. This could be practical if it is supported by locally based scientific studies. Unfortunately, little or no local psychological investigations have been made on the area.

2.2 Categories of Running Events

Athletic is one of the common leisure sport activity of individuals. Running, is part of athletics, refers to go steadily by sprinting steps so that both feet leave the ground for an instant in each step (Abera, 2008). It is to mean that both feet are on the air at once which is quite different from walking and jogging. The runner's objective is always to cover a given distance in the least possible time. The time actually recorded by the athlete is determined by the distance of the event and by the athletes' average speed over the distance.

As visibly described by Abera (2008), there are three types of running events:-

a. Sprints (short distance running): - are short running races in athletics. It is running at full speed over a short distance. The common distances in sprint consist of 100m, 200m and 400m. Sprinting is a type of running in which the participant runs the entire distance at near maximum speed (Cooper, Laverry,& Perrin, 1960). They also stated that sprinting differs from fast running in that the stride is usually longer, the number of stride per second is greater, and the force of the driving leg against the ground is less.

According to Cooper, Laverry, Perrin, (1960) the sprinters have the following characteristics:

Body build:- sprinters appears to be the least distinguishable track and field participants. Probably the ideal body build for the sprinter would be a height of about 6 feet with light bones, good musculature, especially around the thigh region, light musculature in the calf of the leg(at least not thick ankle and heavy muscle placed low in the leg) and long, lender feet.

Temperament and age: - the sprinter is often nervous and high strung. Whether this results from experience in an explosive, competitive situation or is the natural condition is debatable. Evidence in relation to age seems to indicate that speed belongs to youth, but some great sprinters have been able to keep their speed until the age of 30 or longer.

b. Middle Distance Running Events: races ranging from 600m to 3000m are known as middle distance events. The most popular distances include 800m, 1500m, and 3000m runs. Middle distance runners use combination of sprint speed and endurance. The athletes are expected to develop combined characteristics of sprinters and endurance runners like speed, strength and endurance.

c. Long Distance Running:- the most common distance races consist of 5000m to 10,000m and marathon that does not take place on tracks. Cooper, Laverry, Perrin, (1999) described the ideal Characteristics of the long distance runners as: distance runner is short and tends to be light in weight, although he may be somewhat stocky. He has a slow pulse rate, and likes activities that require endurance. They also added that the essentials of good

coaching to the extent of social supports like psychological services given for athletes which have an influence on their performance.

Black athletes of East African origin (Kenyans and Ethiopians) dominate most endurance running events, from the 800m track event to the marathon. Many of the best performances in these events have been achieved by Kenyans (49%) and Ethiopians (15%) (Lucia et al., 2008). In recent years, other African endurance runners (from South Africa, Tanzania, Zimbabwe and, more recently, Eritrea) have also attained excellent results in international competition. A lower cost of running, that is, better economy, has been demonstrated in some top-level East African runners and in runners from other parts of Africa compared to their Caucasian counterparts (Lucia et al., 2008).

Researchers have tried to explain the success of those east African runners from several perspectives. For instance, as indicated in Onywera et al. (2006), some experts propose different explanations like environmental factors (Saltin, 1996), psychological advantage (Baker & Horton, 2003) and favorable physiological characteristics that could be genetically conferred or environmentally determined (Larsen, 2003). These phenomenons could account, at least in part, for their superior competition performance. Moreover, Scott et al. (2003) reported that both environmental (like altitude, going to school with foot) and genetic factors contribute for athletic success of Ethiopian endurance athletes. Furthermore, Scott et al. (2005) concluded that "environment and, perhaps, polymorphisms in the nuclear genome are more important determinants of Ethiopian running success than mt DNA polymorphisms".

Even though some literature could be evidences to show that psychological variables influences athletes' success in running, limited or no psychological research have not been done in our country to see whether psychological factors correlate with athletic success or not. Hence, this study gives an insight about the associations of some psychological variables (like locus of control and personality characteristics) with athletic performance.

2.4 Overview of the Big Five Personality Characteristics (OCEAN)

The study of the big five personality model goes back to the 1940's and going on till now. The Big Five is not a theory of personality per se, but rather is a model of personality based on some fifty years of research analyzing the words individual use to describe themselves and others. After factor analysis these "personality traits" align along five dimensions, hence the model's name. Although it is not a theory in itself the model has generated several trait theories, most importantly for this research is the "Five Factor Theory".

This study chose to focus exclusively on Costa and McCrae's (1992) five factor model of personality. The Five Factor Model (FFM) of Personality, based on the compilation of 40 years of factor analytic studies, began to emerge as researchers started to agree that personality traits could be grouped into five basic categories (Costa et al., 1999; McAdams, 2001). The FFM states that there are five universal personality traits that are present in varying degrees in each individual. These five primary traits are Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness (McCrae & Costa, 1987).

Since it was originally introduced, a large body of research has been created that supports the FFM of personality (Costa et al., 1999; McAdams, 2001; McCrae & Costa, 1987). The FFM is the first comprehensive account of traits in the history of personality psychology (McAdams, 2001) and is considered by many psychologists to be the best depiction of trait configuration (Podar et al., 1999). The model is considered to be efficient as it provides a global description of personality in as little as five scores. Furthermore, support for the FFM has been found across cultures (McCrae, Costa, Martin, Oryol, Rukavishnikov, Senin, et al., 2004; McCrae & John, 1992). However, it does not mean free from criticisms.

In contrast to theories of personalities, the FFM is a descriptive model that only depicts the degree to which a person possesses the five basic personality traits and their facets. The model does not explain the origins of personality (Costa et al., 1999). However, McCrae and John (1992) noted that present theories of personality are not completely adequate in

various sports and at all levels of performance which are indicative of a disposition to assertiveness, venturesomeness and risk taking.

2.5.4 Role of Agreeableness

Agreeableness assesses one's interpersonal orientation. Individuals high in Agreeableness are empathic, trusting, honest, friendly, cooperative, kind, understanding, courteous, selfless, and kind. Individuals low in Agreeableness is characterized by setting themselves against others, being mistrustful, skeptical, callous, manipulative, unsympathetic, uncooperative, unreliable, stubborn, and rude (McCrae & Costa, 1987).

Individuals high in Modesty are humble although not necessarily lacking in self-esteem, while those low in Modesty believe they are superior and are seen as conceited or arrogant by others. The last facet of Agreeableness, tender-mindedness, examines attitudes of sympathy and concern for other people. High scorers are moved by the needs of others and focus on the human side of policies, whereas low scorers are more hardheaded and not as affected by emotional appeals (Costa & McCrae, 1992).

Agreeableness is a fundamental trait associated with the intention to strive for communion with others (Barrick et al. 2002,). Being such, athletes are more likely to be ready to share their knowledge and experience with others to overcome the challenges in the athletics settings. They facilitate smooth knowledge sharing among team members. But in critical situations, like requirement uncertainty, where one is required to take a position of authority to proceed forward, people with an agreeableness personality trait are likely to avoid taking the appropriate actions to avoid being un-agreeable. Consequently, they may have to follow the decision of the groups or "significant others" in tackling the new changes in the project as they comply (McCrae and John 1992) to outside pressures (John and Srivastava, 1999). So it is very likely that such athletes will be led by team or peer decisions than by their own, even if it is significantly better. Also prior research have shown a negative relation between agreeableness and external career success in people oriented jobs and that it could be a liability hampering one's own success at the cost of obliging others(Seibert & Kraimer 2001; Judge et al. 1999). Thus, we expect the

Big Five Personality Inventory-44: Throughout the history of studying personality many instruments have been developed at different periods. Following the growth of using five factor model in studying personality, a shorter version of personality measure was created by Costa and McCrae entailing 60 items in 1992 and was called the NEO Five Factor Inventory (NEO-FFI), from the original 240-items NEO Personality Inventory (NEO-PI-R) (Costa and McCrae, 1992).

By the end of the 1990's, John and Srivastava (1999) developed a brief version of the NEO-FFI in order to assess personality according to the five factors efficiently. The inventory which they created was the Big Five Inventory (BFI) consisting of 44-items and it has five general personality factors: Extraversion (characterized by being talkative, energetic and assertive), Neuroticism (characterized by tension, moodiness and anxiousness), Agreeableness (characterized by being sympathetic, kind and affectionate), Conscientiousness (characterized by being organized, thorough and plan life), and finally Openness to experience (characterized by having wide interests, being imaginative and insightful) (John & Srivastava, 1999).

The BFI-44 was adapted from John & Srivastava (1999) since it has been widely used to measure the big five personality characteristics across various cultures. BFI-44 items consist of short phrases that are representative of each trait. In this study, participants forced to chose how much they agree or disagree with each statement in how it applies to them. In a research done by John and Srivastava (1999), the mean reliability of the Five Factor Model traits with the BFI was reported to be strongly positive (.83). Cronbach's alpha values also reported for the traits as 0.8 for extraversion, 0.6 for agreeableness, 0.75 for conscientiousness, 0.79 for neuroticism, and 0.82 for openness to experience.

II. Structured interview: it was used to collect data from the coaches. It includes seven basic guiding questions for the coaches. It was prepared based on the existing literatures regarding personality characteristics and locus of control in relation to athletic performance. It was aimed to complement the data collected through the standardized inventories described above. It also helped the researcher to share the experience of those coaches who has very close to athletes regarding the relationship of athletic performance with personality characteristics, locus of control and counseling intervention mechanism

employed. Moreover, it gave an opportunity for coaches to express their idea in suggesting valuable remedial actions for the improvement of athletic performance for long.

3.4.2 Procedures

Initially, a questionnaire was developed which had demographic items, 44–items for overall personality characteristics, 30–items for Internal-External locus of control beliefs. Then, it was translated into Amharic to minimize misunderstanding that might have occurred. The translation was made helped by two English language postgraduate students. The translation was done by those individuals independently for cross-checking the accuracy of the translation. Examining the translation made by those two individuals, the researcher reconstructed items those failed to provide common understanding. Then, the questionnaires were tested in the pilot study.

Then after, cooperation letters from Institute of psychology in AAU were distributed for EAF and athletics sport club authorities to get permission. After the authorities granted the permission, the researcher developed a rapport with coaches and athletes at each sport club. Clear instructions were given for each participant and assured that all individual responses would be kept in confidential. Both questionnaires had trait-oriented instructions which emphasized the need for responding to each question according to how the participants usually felt.

After permission was obtained from the authorized bodies of the EAF, clubs and participants, the samples were selected and the questionnaires were distributed for them with the help of coaches and some athletes at each research sites. The participants also agreed to bring the questionnaires in the next training period. The athletes were not able to fill the questionnaires freely during training programs since they were exhausted by athletic training activities. So, they used their recovery time at home to fill out the questionnaires. Many completed questionnaires were collected during the next training program and those who could not return them at that particular given period, were reminded to bring them the following programs. This process was not easy for the researcher even though the procedure was fairly effective and out of the 225 questionnaires, which were distributed, 208 were completed correctly and returned. The researcher collected data from coaches using structured interview through making

appointment programs out of training sessions. Since the structured interview questions were focusing on variables which need special meaning like personality, locus of control and counseling, the researcher attempted to clarify those guiding questions for the coaches during the interview sessions. After each questions were elaborated by the interviewer, the coaches responded for all questions accordingly.

The time ranges from first weeks of March up to last week of April 2010, in which the data was collected, has been considered as a competition period by those athletics clubs. The EAF prepared the 39th Ethiopian athletic championships among those athletic clubs in the country in the first weeks of May at this year. Since the athletes have been required to fulfill at least a minima (the minimum standard that any athlete must fulfill to participate at athletics championships) to participate in this championship, all of the athletes at all sport clubs were seriously doing trainings. Thus, it is confident to say that optimal performance of the respondents was obtained for this study.

3.5 Pilot Study

A pilot study was carried out prior to the main study to pre-test clarity, understanding, and reliability of the instrument and timing of how long the main study could take. The pilot study was conducted among a sample of 30 athletes (18 were males and 12 were females) who were conveniently selected from two sport clubs and who did not participate in the main study. Fortunately, most of the items in the questionnaires were clear and understood by the students. The reliability of the questionnaire tested for pilot among this population seems adequate and promising to use the instruments for the main study at the research settings.

The results from the pilot study indicated that the adapted and modified questionnaires could measure the internal-external locus of control and personality characteristics of athletes. In this study alpha reliability of .98 and .94 were found for internal and external locus of control sub-scales respectively. Cronbach's alpha values of personality traits based on the current tryout sample were 0.62 for extraversion, 0.64 for agreeableness, 0.62 for conscientiousness, 0.7 for neuroticism, and 0.77 for openness to experience.

Some modifications were done on some items of those instruments immediately to suit the conditions of the athletes. Since some of the personality inventory items were shown as lowering reliabilities of the subscales and unclear, the Amharic translations of BFI-44 items 7, 8, 11, 24, 35 were revised. After the questions that reduced the reliability of those personality traits were modified, the BFI-44 items were finalized.

Moreover, the pilot study also revealed that the athletes in those clubs were come from different regions of the country even though the frequency differs from one region to another. Some of the demographic items were also modified and reconstructed after the pilot study. Generally, the pilot study was used not only to examine the reliabilities of the instruments but also to determine directions for shaping the objectives of the main study.

3.6. Variables Included in the Study

In this study the following dependent and independent variables were considered.

1. **Dependent variable:** The dependent variable of the study was athletic performance. In this study athletic performance is the best performance time that athletes scored during their training or athletic competition at their best event until the data was gathered. The athletes' best performance time was obtained from self report. It was very advantageous for the researcher to gather the optimal performance of athletes during the competition periods of those athletics clubs.

The athletes participated in the study were asked to report their best performance time (BPT) recorded in their best track event at athletic trainings or competitions (not more than or less than ten trials) for the last three months. Each runner's best performance time, in his/her best event (SDR, MDR, and LDR), was obtained from self report and transformed in to the smallest unit of time that is seconds for analysis.

2. **Independent variables:** The independent variables considered in this study can be categorized in to four: variables that are used to measure the personality characteristics (OCEAN), Internal-external LOC, the demographic variables associated with athletes and the variables related to athletic achievement.

i. personality scales were: a) Openness to experience b) Conscientiousness c) Extraversion d) Agreeableness e) Neuroticism

ii. Locus of control scales: a) Internal locus of control b) External locus of control

iii. Personal variables (Demographic variables):

a) Sex: both male and female athletes were included in the study

b) Marital status: as being married or single have been

c) Age: athletes' actual age was entered in the analysis

d) Educational level: in this case athletes were categorized in to four sub Groups.

e) Monthly average income

iv. Athletics related variables

a) Frequency of participation in athletics competition

b) Number of years stayed in club

c) Medals earned

3.7 Scoring Procedure

After the raw data was gathered from the respondents, it was first coded and the codes were entered into the Microsoft Excel computer program. The nominal data were coded by using different ways of coding depending on the question. For example, the question on sex: male was given a code of 1 and female a code of 0. Questions that required Yes/No responses: Yes was given a code of 1 and No a code of 0. For marital status: married response was coded as "1" and unmarried ones as "0". Moreover, educational level was categorized under four sub groups: primary school complete coded as "1", junior secondary school complete coded as "2", high school and preparatory complete coded as "3", Some college and above coded as "4".

The athletes were reporting their best performance time in their field in minute, second and microsecond. For easiness of analysis, the time was transformed in to its smallest unit that is second. The other variables like frequency in athletic participation, average income, number of medals, time stayed in the club were simply used as it is for analysis.

The participants rated LOC and BFI-44 items of the questionnaire on five likert scale ranging from disagree strongly "1" to agree strongly "5". The ordinal data for part II and III of the questionnaire were all coded as "agree strongly" = 5, "agree a little" = 4, "neither agree nor disagree" = 3, "disagree a little"=2 and "disagree strongly"=1. Some of the negatively keyed BFI-44 items (2, 6, 8, 9, 12, 18, 21, 23, 24, 27, 31, 34, 35, 37, 41, 43 see appendix B, part three) were scored reversivly. There were 15 internal LOC items and 15

external LOC items that came out the final scale for analysis. The researcher then took the mean score for the internal items and the mean from the external items and added them to make two separate and distinct factors.

3.8 Method of Data Analysis

This study employed Pearson-product moment correlation to examine patterns of relationships among dependent and independent variables. The independent sample t-test analysis was also used to compare the mean values and examine whether there is statistically significant variation between males and female athletes on personality characteristics and locus of control across the three types of running events.

The main independent variables (personality characteristics (OCEANs), internal LOC and external LOC) were treated in relation to athletic performance (dependent variable). Demographic variables were also examined in relation to athletic performance. Multiple regression analysis was utilized to see the joint contribution of the independent variables on variance of athletic performance as a dependent variable. Stepwise multiple regression was also employed to select the variables that best explain the variation in athletic performance (performance time) following multiple regression.

The statistical analysis was done using SPSS 16.0 version. All the quantitative dada were entered in this software and analyzed in line with the basic questions raised at the beginning of the study.

The interview items and open-ended responses were not used for statistical analysis, and therefore, they were used "anecdotally". This means responses were not presented in statistical summaries but were simply related to what some of the respondents had said ('Anecdote). In other words, the researcher just provides some examples of what respondents wrote. The interview items and open-ended response information has been used in this study as complementary data to close-ended responses, for discussion and general comments.

Chapter Four

4. Results

This section of the study consists of demographic characteristics of participants, the relationship between the independent variable and dependent variables, the multiple regression analysis regarding the contributions of the predictor variables on dependent variables. It also includes the qualitative analysis of data obtained from open ended questions forwarded to athletes and interview responses gathered from coaches.

4.1. Demographic Characteristics of the Participants

The section consists of general background information of the participants regarding their sex, age, educational status and other variables related to athletics participations.

Table 1, Demographic Variables of the Respondents by Type of running events

Serial No.	Variables	Types Of Running Events					
		SDR		MDR		LDR	
		200m	400m	1500m	3000m	5000m	10000m
1.	Sex:						
	a) Male	11	15	22	13	24	23
	b) Female	23	15	25	14	9	14
2.	Age:						
	Mean	21	20.37	20	20	21.18	20.78
	SD	2.894	2.512	2.54	2.77	3.117	2.69
	MIN	17	17	15	15	15	17
	MAX	30	27	26	28	28	28
3.	Marital status:						
	a) Single	28	28	41	23	29	34
	b) Married	6	2	6	4	4	3
4.	Educational status:						
	a) Elementary school	-	-	5	7	-	1
	b) Junior secondary school	1	4	7	5	8	13
	c) High school and preparatory	23	20	26	19	22	21
	d) college and above	10	6	9	2	3	2
5.	Average monthly Income:						
	Mean	591.26	659.48	591.21	594.7	645.73	601.13
	SD	219.65	126.58	281.932	344.619	135.124	173.44
	Min	0	500	0	0	500	0
	Max	1000	1160	1753	1650	1000	800

Table 2, descriptive statistics scores of the variables related to athletics participation.

S. No.	Variables	Types Of Running Events					
		SDR		MDR		LDR	
		200m	400m	1500m	3000m	5000m	10000 m
1.	Frequency of Participations in athletic competitions:						
	Mean	5.15	5.73	5.28	9.8	8.27	6.41
	SD	3.096	2.664	3.728	7.1	4.83	4.74
	MIN	1	1	1	2	2	1
	MAX	15	15	18	30	22	25
2.	Number of years athletes stayed in their club:						
	Mean	3.74	3.44	3.12	3.92	4.35	3.99
	SD	2.108	1.759	1.34	2.33	2.31	2.313
	MIN	1	1	1	1	1	1
	MAX	10	9	6	11	8	10
3.	Number of medals earned in the last two years:						
	Mean	7.21	8.28	5.19	6.15	4.15	3.92
	SD	8.108	6.75	5.792	7.79	3.91	4.23
	MIN	0	0	0	0	0	0
	MAX	34	29	32	35	15	20
4.	Best performance time in terms of seconds:						
	Mean	24.35	54.5	243.4	573.5	892.6	1858.4
	SD	2.423	5.929	39.48	43.9	49.486	144.04
	MIN	21	46	109	503	822	1696
	MAX	29	64	298	666	1020	2223

Note: X=mean, SD=standard deviations, MIN= minimum score, MAX= maximum score.

Table (2) above pointed out that the short distance runners were participated in athletics championships about five times in average in the last two competition years. Those athletes in short running event stayed for an average 3.6 years in their current club. They also collected an average of eight medals for the last two consecutive competition periods. Those participants from 200m and 400m track events recoded best performance time ranging from 21 up to 29 and 46 up to 64 second respectively.

MDR athletes also participated in athletics competitions averagely about seven times in the last two consecutive competition years. The athletes at 1500m and 3000m scored best

performance time on these events ranging from 109 to 298 and 503 up to 666 seconds respectively.

In addition, the average frequency of participation of those long distance runners in athletics championships was seven which range from only one to 25 periods in the last two computational years. Those athletes participate at 5000m and 10000m scored best performance time ranging from 822 up to 1020 and from 1696 up to 2223 seconds respectively.

4.2. Quantitative Results

In this part of the finding, data analysis using various statistical methods has been made on the independent and dependent variables. The nature of the relationship among all variables considered in the study, the contribution of demographic and main independent variable for the variance observed in best performance time among those participants at different types of running events and the differences in the mean score between male and female athletes on locus of control and personality characteristics were examined by applying product moment correlation, multiple regression and independent sample t-test. Descriptive statistics like Mean, standard deviations were also used.

4.2.1. Relationships of the independent and dependent variables under the study

In order to realize the nature of the relationship among the independent and the dependent variables considered in the study, Pearson product moment correlation analysis was employed. Thus, the inter-correlation matrix of the variables under the study include: demographic variables, LOC, personality characteristics, athletic performance (best performance time in terms of seconds) and medals earned. Inter-correlation matrices analysis and descriptions have been made among these variables by the six specific types of running events separately.

Table 3, Intercorrelation matrix among the variables under the study at SDR (200 meter)

	AGE	FP	Yrs	Income	Intloc	Extloc	O	C	E	A	N	BPT	Medal
AGE	-												
FP	-.133	-											
Yrs	.607**	.057	-										
Income	.341*	.106	.424*	-									
Intloc	.062	-.325	.008	.051	-								
Extloc	.008	-.085	.070	-.034	.250	-							
O	.143	-.219	.170	.098	.248	.001	-						
C	.023	.102	.100	-.337	.172	.098	.139	-					
E	.007	.043	.169	-.135	.103	-.098	.374*	.465**	-				
A	.144	.007	.215	.000	.401*	.212	.272	.634**	.654**	-			
N	.003	-.068	.043	.061	.086	.099	-.193	-.177	-.137	.002	-		
BPT	-.106	-.213	.114	.151	.157	-.007	.018	-.258	-.133	-.058	.483**	-	
Medal	.195	.383*	.262	.278	.062	.067	.223	.094	.101	.052	-.163	-.255	-

Note: - **. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed), FP = frequency of participation athletics competitions, Yrs = number of years stayed in a certain club, O = openness to experience, C = conscientiousness, E = extraversion, A = agreeableness, N = neuroticism, Intloc =internal locus of control, Extloc =external locus of control, BPT=best performance time.

As we can see on the table (3) above age and frequency of participation in athletic competition were negatively and not significantly correlate with best performance time($r = -.106$, $r = -.213$). Internal LOC was positively and not significantly correlate with best performance time($r = .157$). Only neuroticism personality characteristics was positively and significantly correlate with best performance time($r = .483$, $p < .01$). The rest personality characteristics as conscientiousness, extraversion and agreeableness were negatively and not significantly correlate with best performance time($r = -.258$, $r = -.133$, $r = -.058$ respectively). Agreeableness was also positively and significantly correlated with internal LOC($r = .401$, $p < .05$).

Table 4, Intercorrelation matrix among the variables under the study at SDR (400m)

	AGE	FP	Yrs	Income	Intloc	Extloc	O	C	E	A	N	BPT	Medal
AGE	-												
FP	.046	-											
Yrs	.326	.361*	-										
Income	.286	.025	.187	-									
Intloc	.097	.075	.019	-.025	-								
Extloc	.014	-.007	.049	-.192	.596**	-							
O	.125	-.263	.152	-.123	.187	.386*	-						
C	-.208	-.151	-.398*	.027	.105	-.143	-.374*	-					
E	.124	-.020	.118	.058	.030	-.024	.146	-.131	-				
A	.142	-.063	-.211	-.194	.097	.039	-.223	.287	-.098	-			
N	.125	-.263	.152	-.123	.187	.386*	1.000**	-.374*	.146	-.223	-		
BPT	-.150	-.271	-.144	.034	.074	.053	.018	.210	-.087	.454*	.018	-	
Medal	-.019	.022	.145	.242	.052	.117	-.092	.129	-.138	-.264	-.092	-.114	-

Note: - **. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed), FP = frequency of participation athletics competitions, Yrs = number of years stayed in a certain club, O = openness to experience, C = conscientiousness, E = extraversion, A = agreeableness, N = neuroticism, Intloc =internal locus of control, Extloc =external locus of control, BPT=best performance time.

As the table (4) above show all the demographic variables were correlated negatively and not significantly with best performance time except average monthly income($r = .034$). Both internal and external LOC were positively and very weakly correlated with best performance time($r = .074$, $r = .053$ respectively). The table (4) also illustrate that agreeableness was positively and significantly correlate with best performance time($r = .454$, $p < .05$) at four hundred meter track event. Neuroticism was also positively and significantly correlated with external LOC($r = .386$, $p < .05$).

Table 5, Intercorrelation matrix among the variables under the study at MDR (1500 meter)

	AGE	FP	Yrs	Income	Intloc	Extloc	O	C	E	A	N	BPT	Medal
AGE	-												
FP	.140	-											
Yrs	.042	.376**	-										
Income	.444**	.018	.119	-									
Intloc	.065	-.074	-.012	.217	-								
Extloc	-.040	.169	-.073	.001	.307*	-							
O	.122	-.222	-.041	.076	.016	-.107	-						
C	-.016	-.176	-.253	.177	.144	.257	.171	-					
E	.114	.085	-.049	.116	.022	-.150	.162	.127	-				
A	.258	.254	.181	.197	-.036	.305*	.051	.319*	-.051	-			
N	-.184	.425**	.201	-.149	-.219	.139	-.161	-.295*	-.088	.275	-		
BPT	-.084	-.048	.006	-.199	.041	.071	.047	.100	-.028	-.178	-.322*	-	
Medal	.054	.132	.031	.138	.049	-.019	.178	-.222	-.162	.131	.072	-.060	-

Note: - **. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed), FP = frequency of participation athletics competitions, Yrs = number of years stayed in a certain club, O = openness to experience, C = conscientiousness, E = extraversion, A = agreeableness, N = neuroticism, Intloc =internal locus of control, Extloc external locus of control, BPT best performance time.

As can be observed in table (5) age and frequency of participation in athletics competitions were negatively and not significantly correlated with best performance time(r -.084, r = -.048 respectively). Openness and conscientiousness were positively and not significantly correlated with best performance time(r = .047, r = .100). In contrast neuroticism was negatively and significantly correlated with best performance time(r = -.322, $p < .05$). Extraversion and agreeableness were negatively and not significantly correlated with best performance time(r = -.028, r = -.178 respectively).

Table 6, Intercorrelation matrix among the variables under the study at MDR (3000 meter)

	AGE	FP	Yrs	Income	Intloc	Extloc	O	C	E	A	N	BPT	Medal
AGE	-												
FP	.406*	-											
Yrs	.531**	.468**	-										
Income	.254	.258	.446**	-									
Intloc	.017	.058	.109	-.091	-								
Extloc	.335	.050	.258	-.135	.473**	-							
O	-.003	-.247	-.189	.119	.240	-.121	-						
C	.045	.068	-.011	-.053	.326	.211	.225	-					
E	.031	.409*	-.070	-.096	.116	.033	.149	.255	-				
A	.064	.337	.067	-.058	.296	.316	.191	.652**	.419*	-			
N	.313	.099	.158	-.053	.098	.414*	.019	-.073	.111	.231	-		
BPT	-.403*	-.422*	-.223	-.113	-.240	-.259	-.007	-.232	-.260	-.254	-.235	-	
Medal	.013	.534**	.087	.008	.107	-.281	-.286	-.071	.169	.097	-.278	-.190	-

Note: - **. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed), FP = frequency of participation athletics competitions, Yrs = number of years stayed in a certain club, O = openness to experience, C = conscientiousness, E = extraversion, A = agreeableness, N = neuroticism, Intloc =internal locus of control, Extloc =external locus of control, BPT=best performance time.

Table (6) depict that age was negatively and significantly correlated with best performance time(r = -.441). Both internal and external LOC were positively correlated with best performance time however external LOC was significantly associated with best performance time(r .396, p < .05). Most of the personality characteristics were also positively correlated with best performance time except openness to experience which was negatively and weakly relate with best performance time(r = -.018).

4.2.2 Sex Difference on Internal-External LOC and personality characteristics (OCEANS)

In order to examine the difference between males and female athletes in terms of internal-external LOC dimensions and OCEANs, the mean values of these groups have been compared using independent sample t-test analysis. The comparisons have been made in six specific types of races and presented with a single table for each event (see **appendix D**).

As can be observed on t-test table (appendix D), independent sample t-test analysis was conducted to examine the discrepancies between male and female athletes on internal-external dimensions of LOC scores at some track events. The test show that there was no significant difference among male and female athletes at all six specific events on both internal and external LOC scales. Of course, there seem slight mean differences among male and female athletes on both scales at some track events even if it was not statistically significant.

The t-test table (see appendix D) shows the means and standard deviations of male and female athletes' scores on personality characteristics. In order to understand the differences among these athletes on personality scales of OCEAN, independent sample t-test was employed. The table indicates that males' and females' mean values on neuroticism personality characteristics was significantly different at 200m($t = -2.150$, $df = 32$, $p<.05$). Here, females score higher mean value compared to male athletes at this event. Moreover, statistically significantly sex differences were obtained on openness to experience and agreeableness ($t = -2.082$, $t = -2.786$, $df = 25$, $p < .05$) at 3,000m running event. Male and female athletes were significantly different on extraversion ($t = 2.065$, $df = 31$, $p < .05$) at 5,000m track event at which male were more extravert than female. athletes. As the independent sample t-test analysis show slight mean difference on most of the personality characteristics considered in the study but some were not statistically significant on the given running events.

4. 2.3 Predicting Athletic Performance from Demographic Variables

In order to uncover the joint contribution of demographic characteristics (sex, age, marriage, educational levels, frequency of participation in athletic competitions, amount of time stayed in club and average monthly income) multiple regression analysis was used and described below at each track events(see detail statistics on **Appendix E**). Some demographical variables showed statistically significant results for the prediction of athletic performance and presented as follows.

Table 9, Multiple Regression Analysis to Determine the Contribution of the Demographic Variables for best performance time at **SDR (200m)**

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	23.191	3.767		6.156	.000
Sex	-2.938	.922	-.576	-3.188	.004
Age	.018	.181	.021	.097	.924
Marriage	-1.169	.932	-.187	-1.255	.221
Education	.765	.691	.161	1.107	.279
Participation	-.199	.115	-.255	-1.736	.094
Stay	-.098	.244	-.085	-.400	.692
Income	.001	.002	.131	.766	.450

a. Dependent Variable: performance ($R = .710$, $R^2 = .504$, Adj. $R^2 = .371$, SEE = 1.922, $F = 3.778$, $p < .05$)
b. Predictors: (Constant), Income, Participation, Education, Marriage, Sex, Stay, Age

Table (9) consists of multiple regression analyses of demographic variables and their cumulative contributions to the prediction of best performance time at SDR. All of these independent variables jointly contribute for the prediction of best performance time at a significant level of confidence, which accounts for about 37.1% of the variance of performance time ($R = .710$, $p < .05$). The stepwise multiple regressions have been made to identify the independent contribution of those variables for the explained variance in best performance time at two hundred track events as follows.

Table 10, Stepwise regression analysis of demographic variables that importantly contribute for the prediction of best performance time

(probability –of-F- to-enter <=.050, probability-of-F-to-remove > = .1000).

Model	R	R Square	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 A	F A	df1	df2	Sig. F A
1	.629[a]	.396	.377	1.913	.396	20.944	1	32	.000

a. Predictors: (Constant), Sex

Using stepwise regression analysis (in table 10), the variable that best explained the prediction of best performance time was done. Those variables that did not explain the explained variance significantly were rejected. The type of sex was found to explain about 37.7% of the combined effect variance significantly ($R = .629$, $p < 0.05$).

Table 11, Multiple Regression Analysis to Determine the Contribution of the Demographic Variables for best performance time **SDR (400m)**

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	60.015	6.620		9.065	.000
Sex	-8.123	1.892	-.697	-4.293	.000
Age	1.565	1.825	.164	.857	.401
Marriage	-3.096	4.130	-.132	-.750	.461
Education	1.513	1.596	.149	.948	.353
Participation	-.331	.352	-.149	-.940	.357
Stay	-.277	.644	-.082	-.430	.671
Income	-.008	.008	-.169	-1.047	.306

a. Dependent Variable: performance ($R = .739$, $R^2 = .546$, Adj. $R^2 = .402$, SEE = 4.585, $F = 3.786$, $p < .05$)
b. Predictors: (Constant), Income, Participation, Marriage, Education, Sex, Stay, Age

As it can be seen in the regression analysis in the table(11) above, demographic variables were entered to see their contribution for the variance of best performance time when they combined together. The summary of the regression model indicate that those demographic variables were able to explain 40.2% of the variance of best performance time significantly when the variables had been taken together($R = .739$, $p < .05$). Stepwise multiple regression analysis was made to examine the contribution of each variable for the explained common variance.

Table 12, Stepwise multiple regression analysis of demographic variables that importantly contribute for the prediction of best performance time

(probability –of-F- to-enter <=.050, probability-of-F-to-remove > = .1000).

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Δ	FΔ	df1	df2	Sig. F Δ
1	.669[a]	.448	.428	4.485	.448	22.685	1	28	.000

a. Predictors: (Constant), Sex

All demographic variables were entered in the stepwise regression analysis to identify their independent predictive power for the explained variance. As table(12) above indicate that sex was found the only variable that importantly contribute about 42.2% of the explained common variance in best performance time significantly(R = .669, p < .05).

Table 13, Multiple regressions analysis results of demographic variables predicting best performance time at **MDR(1500 meter)**

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	253.181	51.979		4.871	.000
Sex	-26.373	14.540	-.337	-1.814	.077
Age	2.226	2.846	.143	.782	.439
Marriage	5.912	20.056	.051	.295	.770
Education	-8.566	7.500	-.188	-1.142	.260
Participation	.029	1.720	.003	.017	.987
Stay	-.629	5.267	-.021	-.119	.905
Income	-.027	.023	-.191	-1.158	.254

a. Dependent Variable: performance (R =.453, R^2=.206, Adj. R^2 = .063, SEE = 38.213, F = 1.442, p > .05)
b. Predictors: (Constant), Income, Participation, Education, Sex, Marriage, Stay, Age

Table (13) above depicts the multiple regression analysis that explains the combined contribution of the independent variables for the prediction of best performance time. Those demographic variables consisting of the average monthly income, frequency of participation in athletic competitions, education level, Sex, Marriage, amount of time stayed in clubs and age jointly explained 6.3% (R=.453, p > 0.05) of the variance in athletes' best performance time but it was not at a significant level.

Table 14, Multiple regressions analysis results of demographic variables predicting best performance time at **MDR (3000m)**

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	661.182	81.426		8.120	.000
Sex	-18.793	20.505	-.219	-.917	.372
Age	-5.945	4.781	-.380	-1.243	.230
Marriage	-30.409	46.820	-.227	-.649	.524
Education	13.641	15.103	.198	.903	.378
Participation	-1.579	1.307	-.258	-1.208	.243
Stay	3.294	5.866	.176	.562	.581
Income	.018	.034	.142	.515	.613

a. Dependent Variable: performance (R =.637, R^2=.406, Adj. R^2 = .175, SEE = 39.689, F = 1.76, p > .05)
b. Predictors: (Constant), Income, Age, Education, Participation, Sex, Stay, Marriage

As the above table (14) show, the demographic variables including sex, age, marriage, educational level, frequency of participation athletic competition, time stayed in club were entered in to the regression model. The coefficient of determination indicated that those demographic are able to explain 17.5 % of the variance in best performance time among athletes at 3,000m track event. However, the multiple regression analysis show that the explained variance brought through the combined independent variables was not found to be at a significant level (R = .637, P > .05).

Table 15, multiple regressions analysis results of demographic variables predicting best performance time at **LDR (5000 meter)**

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1004.404	67.875		14.798	.000
Sex	-72.841	18.321	-.666	-3.976	.001
Age	.522	2.886	.033	.181	.858
Marriage	4.111	22.478	.028	.183	.856
Education	-2.794	11.753	-.032	-.238	:814
Participation	-1.975	1.615	-.193	-1.223	.233
Stay	-4.197	4.099	-.196	-1.024	.316
Income	-.043	.057	-.117	-.754	.458

a. Dependent Variable: performance (R =.751, R^2=.564, Adj. R^2 = .442, SEE = 36.977, F = 4.616, p < .05)
b. Predictors: (Constant), Income, Education, Marriage, Participation, Age, Sex, Stay

As it is observed in table(15)above the demographic variables were entered in the regression analysis to see their joint contribution for the variance of best performance time . The summary of the regression model illustrate that those demographic variables were able to explain 44.2% of the variance of best performance time significantly when the variables had been taken together($R = .751$, $p < .05$). Stepwise multiple regression analysis was made to examine the contribution of each variable for the explained common variance.

Table 16, Stepwise regression analysis of demographic variables that importantly contribute for the prediction of best performance time

(Probability-of-F- to-enter <= .050, probability-of-F-to-remove >= .1000).

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Δ	F Δ	df1	df2	Sig. F Δ
1	.647[a]	.419	.400	38.326	.419	22.349	1	31	.000
2	.718[b]	.516	.484	35.558	.097	6.014	1	30	.020

a. Predictors: (Constant), Sex
b. Predictors: (Constant), Sex, Participation

As the table (16) above indicate, all demographic variables were entered in the stepwise regression analysis to identify their independent predictive power for the explained variance. The stepwise analysis illustrate that sex and frequency of participation in athletics competitions were found to be the only variables that importantly contribute about 40% and 48.4% of the explained common variance in best performance time significantly($R = .647$, $R = .718$, $p < .05$) respectively.

Table 17, Multiple Regressions Analysis of the Effect of Demographic Variables on best performance time at **LDR (10,000 meter)**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1635.148	223.274		7.323	.000
Sex	-91.990	57.263	-.314	-1.606	.119
Age	9.956	10.116	.187	.984	.333
Marriage	23.522	93.855	.045	.251	.804
Education	22.550	46.115	.099	.489	.629
Participation	-.383	5.868	-.013	-.065	.948
Stay	3.453	11.053	.055	.312	.757
Income	.001	.175	.001	.005	.996

a. Dependent Variable: performance ($R = .343$, $R^2 = .118$, Adj. $R^2 = .095$, SEE = 150.754, $F = .552$, $p > .05$)

Table 20, multiple regression analyses results for predicting best performance time from LOC and OCEANs at SDR (1,500 meter).

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	326.739	86.073		3.796	.001
Internal LOC	-.513	.899	-.093	-.570	.572
External LOC	.894	.853	.183	1.049	.301
Openness	.202	1.105	.028	.183	.856
Conscientiousness	.202	1.391	.026	.145	.885
Extraversion	-.372	1.368	-.042	-.272	.787
Agreeableness	-1.286	1.381	-.163	-.931	.358
Neuroticism	-2.532	1.427	-.315	-1.775	.084

a. Dependent Variable: performance (R =.380, R^2 .145, Adj. R^2 .009, SEE 39.651, F =.942, p > .05)
b. Predictors: (Constant), Neuroticism, Extraversion, External LOC, Openness, Agreeableness, Internal LOC, Conscientiousness

Table (20) above show that all of the LOC and personality variables entered in the regression model explained about 14.5% (R=.380, p > 0.05) of the variance in athletic performance. However, the coefficient of determination of these variables did not explain the variance in athletic performance significantly. Hence, further stepwise regression was not made for the independent variables entered in the regression model.

Table 21, multiple regression analyses results for predicting best performance time from LOC and OCEANs at SDR **(3,000** meter).

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	381.143	98.281		3.878	.001
Internal LOC	.373	1.604	.058	.232	.819
External LOC	.742	1.381	.146	.537	.597
Openness	-2.872	2.114	-.293	-1.358	.190
Conscientiousness	.191	2.187	.027	.088	.931
Extraversion	-.206	2.301	-.017	-.089.	.930
Agreeableness	4.017	2.099	.608	1.914	.071
Neuroticism	4.054	2.066	.470	1.962	.065

a. Dependent Variable: performance (R =.644, R^2=.414, Adj. R^2 = .199, SEE = 39.294, F = 1.921, p > .05)
b. Predictors: (Constant), Neuroticism, Internal LOC, Extraversion, Openness, Conscientiousness, External LOC, Agreeableness

The multiple regression analyses indicated in table (21) reveals the relative strength of those main independent variables to predict athletic performance at MDR(3000 meter) . The combined contribution of LOC and personality characteristics in explaining the variance in athletic performance was 19.9% (R = .644, p > 0.05) but it has no significant contribution for the variation in best performance time at three thousand track event. Further stepwise regression analysis was not made since those variables entered in the regression model were not significantly explaining the variances in best performance time of those athletes at this event.

Table 22, multiple regression analyses results for predicting best performance time from LOC and OCEANs at SDR (5000 meter).

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1075.126	107.979		9.957	.000
Internal LOC	-.647	1.073	-.135	-.603	.552
External LOC	-.346	1.151	-.073	-.301	.766
Openness	1.088	2.612	.083	.416	.681
Conscientiousness	-1.625	2.338	-.179	-.695	.494
Extraversion	-3.109	3.068	-.204	-1.013	.321
Agreeableness	.354	2.435	.040	.145	.886
Neuroticism	-2.161	2.412	-.193	-.896	.379

a. Dependent Variable: performance (R =.425, R^2=.181, Adj. R^2 = .048, SEE = 50.669, F = .789, p > .05)

a. Predictors: (Constant), Neuroticism, Openness, Extraversion, Internal LOC, Conscientiousness, External LOC, Agreeableness

As the table (22) above depicts the strength of the main independent variables treated in the study to predict athletic performance in LDR (5000 meter). The combined contribution of LOC and personality characteristics in explaining the variance in athletic performance was 4.8% (R = .425, p > 0.05) but it has no significant effect on performance of athletes. Further stepwise regression analysis was not made since those variables entered in the regression model were not significantly explaining the variances in athletic performance.

Table 23, multiple regression analyses results for predicting best performance time from LOC and OCEANs at SDR (10000 meter).

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2222.409	324.124		6.857	.000
Internal LOC	-4.134	4.400	-.212	-.940	.355
External LOC	2.758	4.630	.147	.596	.556
Openness	-4.029	5.835	-.125	-.691	.495
Conscientiousness	-2.270	6.470	-.094	-.351	.728
Extraversion	-15.534	8.878	-.340	-1.750	.091
Agreeableness	7.399	7.224	.267	1.024	.314
Neuroticism	.901	5.742	.032	.157	.876

a. Dependent Variable: Performance ($R = .397$, $R^2 = .158$, Adj. $R^2 = .046$, SEE = 147.299, $F = .775$, $p > .05$)
b. Predictors: (Constant), Neuroticism, Intloc, Extraversion, Openness, Conscientiousness, Extloc, Agreeableness

Table (23) show that all of the LOC and personality variables entered in the regression model explained about 15.8% ($R=.397$, $p > 0.05$) the variance in athletic performance. However, the coefficient of determination of these variables did not explain the variance in athletic performance significantly. Hence, further stepwise regression was not made for the independent variables entered in the regression model.

The strength of the relationships and the contribution of LOC and personality variables were treated separately in the regression models above in all track events. However, most of all the variables considered in the regression analysis had no significant effect effects on athletic performance. Thus, they were combined together to examine their joint effect on athletic performance through multiple regression model.

4.2.5 Athletes' Responses For Open Ended Questions

Following the quantitative data analysis, the data gathered though open ended questions from athletes has been analyzed and presented below. Moreover, it provides an opportunity for respondents to describe what they feel about the issues presented for them

Table 24, athletes' locus of control orientations toward the causal factors of their failure

1. a)	**Categories of factors that were put as causes of failure in athletics**	Responses	
		freq	%
1	Coaches related factors(biases, low efficiency, abuse of athletes particularly females, corruption)	36	17.31
2	Training related problems(traditional training systems, lack of adequate trainings, knowledge regarding scientific trainings, over training, un able to keep conditions in general during training periods, disorganized training programs)	34	16.35
3	Resources (lack of sport wears, lack of proper diet during training, and low access of facilities for athletics training, and unattractive fees and reinforcements from clubs	38	18.27
4	Health related factors (common illness, injuries etc).	39	18.75
5	Psychological factors(inaccurate goal setting, un able to design one's own plan, worries with simple thing, anger, carelessness, hopelessness, low confidence, over arousal, unable to take adequate rest, internal discomfort ,taking sport as the end one's life, low parental support	37	17.79
6	God's will (the failure was occurred since God allowed it to do so)	12	5.77
	Missing	12	5.77
	Total	208	100

As the table show the majority 39(8.75%) and 38(18.27%) of athletes reported that health related problems and lack of resource were courses of failures in athletics competitions respectively. The least number of athletes stated that God may decide their fate to be failed.

Table 25, athletes' locus of control orientations toward the causal factors of their success

1. b)	**Categories of factors that were put as causes of success in athletics**	Responses	
		freq	%
1	Setting objectives, Hard working and working along with plans	40	19.23
2	Allocating professionals who can listen athletes' problems and ideas	30	14.42
3	God's will as well as accomplishing tasks properly	20	9.62
4	Accessibility of adequate facilities and resources.	35	16.83
5	Being assertive ,reducing fear and making one's mind free	34	16.35
6	Being healthy and keeping one's conditions through adequate rest	37	17.79
	Missing	12	5.77
	Total	208	100

Regarding the causes of success, highest number 40(19.23%) of athletes felt that hard working and guided through plans or objectives plays great role for success in athletics. Physical health also accounted high position for their success. Moreover, 20(9.62%) of respondents were thought that belief with God and accomplishing tasks properly could lead to success.

2. Do you think that your personality could affect your athletic performance?

The majority 150(72.115%) of athletes respond that their personality affects their performance. On the other hand, 46(22.115%) of athletes were reported that their personality did not affect performance.

The participants were also asked to reason out how personality could influence their performance. Most of the respondents explained that personality has an influence not only on athletic performance but also in other parts of an individual's life activities. They exemplified those behaviors like being anxious, being reserved, carelessness, disorganized life style, worries, feeling of restlessness, hopelessness, etc as having huge negative impacts on success in life and athletics performance in particular. In contrast, they described other behaviors such as goal oriented, being relaxed, active participant in one's job, working hard, believe in effort, enthusiasm, assertiveness, positive self image and self confidence etc, as exceedingly contribute for their success in running world.

3. Regarding the question do believe that psychological factors related with athletic performance and how it could influence your performance? The majority 184 (88.46%) of those athletes who participated in the study said that psychological factors have immense influence on performance. The participants explained their view on how psychological factors influence their athletic performance. They reported that:

- Even if athletes have fulfilled the requirements of training activities, they might not be successful. Many athletes explained that they have finished their force at night before competitions as a result of psychological factors like lack of sleep, feeling of restlessness, frustrations and repeated thinking of the outcomes. Since most of the athletes thought themselves as lower than other people or they thought as other people are above them, they lose their race without applying what they did during training. It was true particularly when they participate at competitions with elite athletes.
- An athlete stated that "Athletics *(Running) cannot be done only with legs rather it is a career that needs mental work/calculation. Thus, unless athletes become strong psychologically/mentally they never be successful in running.*" Similarly, another participant added that psychological constructs have associations with performance because "*if one's psychological wellbeing becomes weak or sick, athletes' legs will be weak or sick.*"
- Many athletes lost their good performance as a result of wrong beliefs like repeated thinking of "power" or "evil sprit/*magic*" which results frustration, fear, stress, anxiety and lose of one's confidence.
- Those participants also pointed out that many athletes who were talented and covered their training programs well but remained unsuccessful due to several psychological factors such as anger, anxiety, stress, repeated thought of outcomes, depression, deciding one's rank before competition and other psychological discomforts. Sometimes, these factors may also inhibit athletes to cover the training programs properly. Finally, psychological factors play great roles either for success or failure of athletes in athletics championships.

4. The athletes were asked whether they need counseling services or not and to explain the benefits they could obtain from counseling services. The majority 197 (94.7%) of participants sought counseling services. On the other hand, few 11(5.3%) of those athletes

responded that they didn't need counseling services. All of the participants declared that there were no psychological services provided for them earlier. No one of the participants disagree on the necessity of psychological service for athletes. They ascertain that psychological services are core elements of success not only for them but for human beings in general. Those participants described the benefits they could obtain from counseling services as:

- It could help athletes to develop self confidence, build winning sprit, to know what they do carefully, and how to deal with life challenge including how to go with others. They also indicated psychology as the key principle of athletic success. Because it helps to do mental and physical training activities carefully, reduce one's limitations and finally directs athletes to be accurate in athletic activities.
- Athletes may be stressed and depressed due to their eagerness to win the competitions. Hence, they need counseling services to be successful by developing mental readiness, handling over arousal, and stress properly.
- One of the athletes reported the need of psychological support in his own words:

  > In *my experience I have got different conditions at the time of competitions than training periods. If I were getting counseling services, I would be a different person at that situation.*

  Other respondent also reported that "*to be frankly speaking I have been on a good condition physically for many times. But, I was not successful in championships since I didn't feel comfort during competitions.*" This implies the impacts of lack of psychological support among athletes.
- Psychological services are essential especially for novice athletes. Because counseling need to be given for athletes about the challenges they face, the costs they pay for their success, the objectives, commitments, tolerance, courage and other requirements of athletics sport.

5. The participants were requested to give their own suggestions for improving their performance. The athletes' suggestions were summarized and presented as follows:

- To produce competent and successful athletes, they should be trained with efficient and educated professional coaches, fulfilling their basic resources like sport wears, training fields, waiting/resting places, giving adequate rest.

- Helping athletes to accomplish their work properly, building their self confidence, take adequate rest, avoid unwanted thinking, reducing stressful events and help them to keep themselves from unwanted places, etc.
- develop open discussion habits with coaches, and resolve problems together
- Providing psychological trainings to prepare athletes for championships, building the sense of winning and avoiding hopelessness etc,
- Provide all kinds of counseling services about social issues, life, work, beliefs, gender, eating style, marriage, luck and success etc. when this is possible and problems become resolved, our country will have many best and successful athletes for future.

4.3. Qualitative Results

The data obtained through interview from the coaches has been organized and analyzed qualitatively in brief as follows.

4.3.1 Analysis Of Coaches' Responses

The Coaches working in the study sites were the targets of the research. Ten coaches were involved as participants of this enquiry. The coaches' response for interview items have been summarized and presented in the following manner. Some special cases, which the coaches shared with the researcher related to the issues, raised by the interviewer has been also presented in brief by coating the response as it is.

1. How do you describe the personality characteristics of athletes at their best event?

All of the 10 coaches elaborated that since athletes had unique characteristics, it was difficult to describe personality characteristics of all athletes with simple terms. Two of the coaches reported that the behaviors of those athletes may vary due to difference in the upbringing of individuals from their families, and the nature of their job and their cultural background. For instance, most of LDR athletes came from countryside were commonly showed isolation and reservation themselves from social interaction. Athletics is also naturally tiresome activity that results nervousness, absent from training, anger, etc.

The coaches described some of the common characteristics of those athletes. All of the coaches agreed up on the existence of personality differences among athletes at different

events. The majority 8(80%) of the coaches reported that those athletes in SDR event showed the following common behaviors. These characteristics include aggressive, overconfidence, outgoing, easily nervous, stylish, overactive, and assume themselves as they were special and the like. On the other hand, those middle and long distance runners were calm, fearful, shy, reserved, practice what is told by coaches, were not educated further.

One of the coaches described the LDR athletes as they were calm in their behavior, dedicated to their job, devoted their time for trainings and activities related to their career, did not follow fashions, and are far sighted because higher number of those LDR athletes have a chance to participate in international competitions and the incentives obtained from their competitions were encouraging compared to athletes at SDR events.

2. Do you think that athletes' personality characteristics could affect their performances?
All coaches emphasized that personality had an effect on performance. For example, unlimited relationship with others, aggressive behavior, and nervousness contributes for less performance. In contrast, those behaviors like goal oriented, assertiveness, commitment, tolerance, and calmness help to be successful.

Three of the coaches explained the relationship between SDR athletes' personality and their effectiveness. They said that sprinters were more recreationist attitude, want play more time, relaxed, aggressive, were not far sighted , they have similar behaviors with football players in Ethiopia. Those short distance runners were not participated in Olympics, international championships and different meetings. Even they didn't fulfill the minima of international championships. In general, short distance runners were less effective since they lack self regulatory behaviors.

3. Coaches were asked to describe athletes' internal-external LOC orientations and its influence on athletic performance.
The athletes have variety of beliefs towards their performance. All of the 10 coaches were proudly said that we have athletes who have been very strong, committed and know what they are doing and how to do it like Haile G/Silassie and Kenenisa Bekele. Such athletes

believed that, according to coaches, they could change their performance by putting their maximum effort, doing much training, applying techniques learned during trainings, etc.

The coaches also added that most of those athletes did not hesitate to do anything that they believed as short cut methods of success. Nine of the coaches reported that some athletes relate either their failure or success towards God's will, coaches, the type of wears, shoes during championships, type of places they did training and type of food they took and *bad/evil spirits* or with their language "*power*" [1] in recent time. Commonly, in the eyes of coaches, those athletes with low confidence project their success or failure toward coaches, training, type of food, injury even before championships.

According to the coaches' view, most of the athletes specifically long distance runners have more religious orientations, doing hard trainings but fasting, praying for long time in religious places like churches and mosques. In contrary to religiosity, some of them fear " *muart*" or "*felfela*" or "power" or "*tenquay*" (magical power) or in other terms the *evil/bad* beliefs. Almost all coaches explained that these activities have significant impacts on athletes' recovery which could in turn have direct influence on their performance.

Five of the coaches pointed out that the belief in "*power*" or "*evil sprit*" was intensively observed among those middle and long distance runners. Female athletes were also more subjective toward the belief in evil spirit. Above all, those athletes who have beliefs on "*power/evil sprit*" do not share their shoes, T-shirts and other things even they did not shake their hands during the time of training programs around computational or championships periods.

Some of the coaches underlined that the widely prevalent wrong beliefs among our athletes on the evil spirit/magic/what athletes call as "*power (tinqola)*" has been resulting a devastating effect on athletics in general even at the national level. Due to the belief on bad/evil spirit, those able athletes could not use their optimal potential. In most cases these beliefs hinder athletes from success even though they have the talents and conditions like the elite ones. Since they developed extreme fear of bad/evil spirit before competitions, many athletes became liable to failure in athletics championships. In this regard, one of the coach narrated a real case like this :

know an athlete who was a best athlete going to the so called "person who has magic power" before his athletic competition. Then the so called "magic person" warned the athlete not to make any physical contact with other athletes before he participate in athletic champion. He was preserving himself from meeting any physical contact with any athletes. Even he was not doing training programs with other athletes. He was trying to do trainings at the edge of fences to be far away from any physical contact. By doing these careful activities he became on the track at the day of the competition. The procedures of athletic competitions were finished and competitive athletes prepared themselves on the track to run. Unfortunately, some athletes start to run before they instructed and forced to start the game again because of false start. At that time, one of the competitive athletes touched his shoulder unknowingly for fun/joke. At that moment the so called "powered athlete" become irritated, too hot, sad, and aggressive and tried to torch physically. The conflict was resolved by the arbiter and the game was started. At end, "the powered athlete" was become the last among the athletes who were involved in the championship. Sorrowely, he is now out of the world of running due to the failure at that championship moment.

Generally, those coaches thought that projecting success or failure toward "bad/evil spirit" has been hindering most athletes to use their natural talent during championships. Most of the coaches listed some of the factors to which athletes associating their success as well as failure with: environmental conditions (air conditions, type of food, injury, techniques that coaches apply, God, bad/evil spirits, etc.). On the other hand other athletes internalize their outcomes towards training they did, use of one's potential/effort, self confidence, etc.

4. As a coach, have you been taking psychological skill training? What do you say about the importance of counseling services in enhancing athletic performance? Are there any professional counselors in your club?

All of the coaches reported that no special psychological trainings were provided for them. In some cases the coaches have been learnt psychological related issues as a single section of the training programs of coaching license. They added that no professional counselors have been working in supporting athletes not only in clubs but also even in the level of national team.

According to the coaches' view the relevance of counseling psychology in athletic is unquestionable. They assured that provision of counseling services could certainly enhance athletes' success. One of the coaches explained it with an example as :

Farmers have been passing through a lot of ups and downs to produce a crop from plouphing (farming) to collecting. Finally, they will put in to a sack and travel to their dwelling from field of large farms. If the sack is not properly tied, the crop will be on the ground and all the tiresome activities of the farmers become useless. Likewise, if an athlete cannot be supported through psychological treatments, all of the activities and goals will be remaining on the air. As the rope is basic to ***tie*** *the sack for the farmer, counseling psychology is true for an athlete's success.*

Even though psychologists have been essential members of athletics staff in abroad, there were no professionals in these clubs. Almost all coaches (9) reported that counselors/psychologists are very essential athletic team members to enhance athletic performance. Besides, they said that except the individual's efforts we made to know the psychological skills essential for athletics, no adequate psychological skill training have been given for us earlier.

5. Could you identify the major problems of your athletes that hinder them from success especially which needs psychological interventions? The coaches described several problems and organized as follows: they listed so many physical, technical, economical, material and psychological factors that they observed in their experience as factors which influence athletic performance. However, more emphasis have been given on psychological problems of athletes.

All of the coaches elucidated that major problems of athletes consist of lack of adequate rest, unable to accept athletics as a career, feeling of hopelessness, manustration related problems for female athletes and inappropriate eating habits. Moreover, they indicated that during competition periods most athletes develop extreme fear, restlessness, stress, frustrations, unable to identify one's talent(best event), for instance athletes want to participate in running events that could brought higher earnings or rewards even if it is not their talent, etc. Since most athletes have been highly eager for achievement, they encounter common sickness and injury.

As the couches' view, prevalence of wrong beliefs on "bad/evil sprits" or "*power*"*(tinqola)* have been serious problems of many of our athletes recently. It hurts the performances and social interactions among athletes. Furthermore, they come across with problems like

economical, lack of resources (i.e. sport wears, training fields, facilities needed for the sport activities), inappropriate eating habit, etc.

Five coaches said that since most athletes particularly LDR athletes were not further educated and came from countryside, they encounter problems in accommodating the culture. That has been the cause for most athletes to stop running after little success. In most cases, athletes were resistant to accept scientific athletic training systems due to low level of education among large number of athletes.

6. What kind of counseling intervention mechanisms have been used to solve problems of athletes? Those coaches replied that no adequate and organized professional counseling services have been given for athletes independently. According to their explanations, psychological services need to be provided for athletes in parallel with physical trainings. However, this is the most ignored aspects of athletic performance in our country.

With its limitation coaches attempt to provide most services for athletes since they were most close responsible bodies for athletes. Even though the services vary from coach to coach, most of the coaches provided the following service for athletes. Most of the coaches reported some supports have been provided for their athletes based on experience such as: giving advice, arousing athletes for competition, helping athletes through modeling those elite athletes on how they reach to the position they have, providing guidance on eating styles, providing reinforcements like salary and rank, etc. One of the coaches stated that

> *Female athletes face difficulties related to manustration to do trainings and participate in competition. He tried to resolve the problem through open discussion with the athletes even if it was not easy to discuss the problem openly.*

Three coaches explained that most of their athletes do not close to coaches rather they tried to withdraw from and hide most of their personal issues. This caused difficulty for coaches to help the athletes psychologically. Those coaches felt that the psychological interventions employed to enhance athletic performance were almost none or very little though they tried their best. Even some do not have enough understandings regarding psychology.

7. Those coaches were requested to provide their suggestions to alleviate the problems of athletes and enhancing athletic performance. They forwarded the following suggestion:

- Fulfilling the basic needs of athletes (sport wears, salary), helping athletes at the time of their success or failure by building their moral and self confidence in steady of insulting or discouraging them during their failure.
- Recruiting professional psychologists to provide counseling and psychological services for athletes and coaches.
- Providing counseling treatments for athletes to avoid their wrong beliefs of "*evil sprits/power/magic power*" through cooperation with other professional.
- Creating available conditions for athletes to attend further education.
- One of the coaches provided professional explanation on the ways of providing counseling services in terms of three phases: *a) Preparation period:-* create mental readiness among athletes for the coming competition periods and provide mind refreshing mechanism, *b) Competition period*; - help athletes to avoid fear, minimize over confidence, and avoid loss of confidence, etc, *c) Transition stage:-* teach athletes to use the active rest effectively, give medical and massage treatment for injured athletes and evaluate ones positive and weak sides of the previous competition periods.

Note: "Power"[1] is the special term used by athletes which means something which is powerful given from "*tenquay*" (in Amharic) /magicians.

Chapter Five

5. Discussion

This section focus on explanations and interpretations of the findings in light with previous studies on the bases of the research questions raised at the beginning of the study. The purpose of this study was examining the relationship of athletics performance with locus of control and personality characteristics among Ethiopian athletes. It also tried to investigate some of the counseling intervention strategies used in those athletics clubs to scale up athletes' performance.

The basic research questions raise in this study were:

- Do personality characteristics (OCEANs) correlate with athletic performance?
- Does internal-external locus of control beliefs relate with athletic performance?
- Does the interrelationship between locus of control, personality characteristics (OCEAN) and athletic performance vary as function of race types?
- What kinds of counseling intervention mechanisms have been used to enhance athletic performance by coaches and counselors if any?

5.1 Personality Characteristics (OCEANs) and Athletic Performance

This study attempts to examine the relationship between personality characteristics of athletes and its relation with athletic performance. The major findings of personality characteristics considered in the study are explained hereafter.

Barrick and Mount (1991) note that openness to experience is a valid predictor of training proficiency because it includes characteristics such as being curious, broad-minded, and intelligent which are attributes associated with athletic performance among athletes. This study also illustrates that openness to experiences was negatively correlated with best performance time at LDR events even if it was weak and not at a significant level. It implies as the athletes scored high on openness to experience, their athletic performance was also relatively high but not at significant level at this events. On the other hand, openness was positively, weakly and not significantly correlated with best performance

time at both SDR & MDR events. Those athletes high on openness scored low athletic performance at both SDR and LDR events.

Conscientiousness is a general personality trait commonly characterized as careful, thorough, responsible, organized, self-disciplined, and scrupulous at one end, to irresponsible, disorganized, undisciplined, and unscrupulous at the other end (McCrae & Costa, 1987). These behaviors have direct implications for better athletic performance. Moreover, meta-analytic evidence has found conscientiousness to be one of the best predictors of job performance (Barrick & Mount, 1991). Likewise, this study found that conscientiousness was negatively correlated with best performance time at all LDR events and 200m track event from SDR event. In other words as the athletes score higher on this personality trait, they recorded high athletic performance or least possible time to cover the distance in the given track events. In contrast, this study indicates that Conscientious was positively and not significantly correlated with best performance time across all types of MDR and 400m at SDR track events. It implies that those athletes high on conscientiousness recorded low athletic performance at those track events. However, the strength of the correlation coefficient of these variables was different among athletes at different running events.

Furthermore, conscientiousness incorporates characteristics such as being hardworking, persevering and achievement-oriented (Barrick & Mount, 1991). Similarly, the coaches reported that "the athletes do not hesitate to do any actions that they assume as the short cuts for their success". Moreover, athletes reported over trainings as the causes of their failure due to their eagerness of athletics success. These tell us the existence of over achievement orientations, and unachievable goal settings among those athletes. These may be the underlying reasons for the reversed relationships between conscientiousness and athletic performance at some track events and even for low correlation coefficients between these variables in this study which cause the finding to be deviated from previous literatures.

According to Egan & stelmack (2003) higher extraversion scores are typical of athletes in various sports and at all levels of performance which are indicative of a disposition to assertiveness, venturesomeness and risk taking. In this study also, it is negatively

correlated with athletes' best performance time at all events except 3,000m track event. This implies those athletes with high athletic performance are characterized by extraversion personality traits. However, the results in this research show that extraversion is weakly and not significantly correlated with best performance time.

Moreover, agreeableness was positively and significantly correlated with best performance time of SDR athletes at 400m track event ($r = .454$, $p<0.05$). It is to mean that as the scores of athletes on this trait increases, their athletic performance decreases, the reverse is also true at the given track event. Similarly, neuroticism was positively and significantly correlated with best performance time of athletes at 200m track event ($r = .483$, $p<0.01$).Those athletes high on agreeableness and neuroticism recorded low athletic performance at the given SDR event. However, previous findings characterize those sprinters as relatively aggressive and nervous (Cooper, Laverry, & Perrin, 1960) as temperaments of successful athletes. The discrepancy of this finding from previous literature can be explained to the degree of being neurotic among athletes in SDR event. When individuals become extreme on neuroticism, it could influence the performance of those athletes in this event.

Neuroticism was negatively and significantly correlated with best performance time at 1500m track event ($r = -.322$, $p < 0.05$). it was also positively and not significantly correlated with best performance time of athletes at 5000m track event. When the athletes score high on the neuroticism dimension of personality, they have scored high in their athletic achievements at the given track events. In contrary to the present finding lower scores on neuroticism scales are frequently reported for athletes, notably for higher achieving performers (Egan & stelmack, 2003). In line with previous findings, neuroticism was positively correlated with best performance time at the rest track events even if it was not at a significant level.

The above statement (Egan & stelmack, 2003) supports the current finding on neuroticism at SDR event. Neuroticism was correlated positively and not significantly with best performance time at the remaining track events considered in the study. As the athletes become high on neuroticism dimension, they have scored low athletic achievements and

the reverse is true. The correlation coefficients on the relationships between neuroticism and best performance time at 400m and 10,000m events were very weak and positive. The coaches during the interview session reported that most of those long distance runners were very descent, calm and obeyed compared to the short distance runners. Even though the coefficient is weak, being neurotic correlates with low athletic achievement in most track events.

5.2. Locus of Control and Athletic Performance

The study tried to explore the relationship between internal-external LOC and athletic performance among athletes at different fields of events. The relationship between LOC and best performance time was weak and positive in all race types except at LDR track events. It denotes that as the athletes scored high on the internal LOC dimension, they scored low athletic performance at SDR and MDR track events. Internal LOC was positively and not significantly correlated with best performance time among athletes in the above track events. In other words, those athletes high on internal locus of control recorded low athletic performance. On the contrary, research findings show that peoples perform better when they feel control over their behaviors and events. In this regard, Weinberg (1994) indicated, the athletes who have more control over their goals consistently perform more effectively. It implies that the internal drive to succeed and perform is one of the factors that help athletes to accomplish difficult goals. Similar to Winberg's finding, internal LOC was negatively correlated with best performance time at LDR track events even though it was not at a significant level. As we all know, most of Ethiopian long distance runners seem to be successful in most athletic competitions. Hence, it is possible to say that those long distance Ethiopian runners are characterized by internal LOC. The deviation of the current finding at SDR and MDR track events from previous literatures done on human performances might be due to the degree of internal locus of control orientation over ones' outcome.

External LOC was also positively and significantly correlated with best performance time among athletes at 3000m track events($r = .396$, $P < 0.05$). It means as the athletes scored high on the external dimension of LOC, they recorded low athletic performance in most

types of races but significant at 3000m. Correspondingly, prior findings on LOC explained that external LOC has been found to be associated with low performances (Mamlin, Harris, & Case, 2001; Matsumoto &Takeuchi, 2000). In contrary to this, external locus of control was negatively correlated with best performance time at LDR track events. As those athletes high on external dimension of LOC, they recorded lowest possible time at the given track events.

Furthermore, the results found from open ended questions indicate that athletes relate either their success or failure towards several factors. The respondents describe the factors that they put as causes of their failure include factors related to health conditions, coaches, psychological factors, God's will, and "*beliefs on evil sprit/power*". Even though the quantitative analysis could not able to explain why the internal or external locus of control beliefs relate with performance at a certain degree, the open ended questions highlights the little further elaborations on the nature of their attribution to a certain degree. The qualitative analysis showed that most of the athletes attribute their failure toward factors outside him/her. On the other hand, most of the factors put as causes of success were inclined to internal factors than externals like hard working, designing plans, hard working etc.

Athletes with external locus of control see events, situations, people, and their lives as being caused by factors outside of their direct control (Matsumoto &Takeuchi, 2000). It means that athletes with external locus of control tend to place responsibility for their athletic performance on forces outside of him/her. Likewise, in this study nine of the coaches also reported that many athletes lost their result and position mainly as a result of frightening of other athletes' "evil sprit "or the so called "power/tinqola". The existing beliefs on "*power/tinqola*" among athletes has been affecting not only their achievements but also their social interaction and team work sprit.

Coaches also added that most of those athletes with low confidence try to find out complain like injury, training related factors, type of food, illness etc that causes their performance even before the game begins. Through incident in their lives, individuals characterized by an external locus of control begin to cognitively reinforce behaviors by

placing responsibility for outcomes on outside forces (Cox, 2002). Coaches were emphasizing on the psychological impacts of the wrong beliefs on "evil sprit" or "power/tinqola" on athletic achievement not only at the individual level but also at the national level. In contrast, the coaches did not hide the presence of world class athletes who break these wrong beliefs, know what to do and how to do their job effectively. Thus, a belief on one's effort is more advisable to enhance performance. In contrast, external locus of control is mostly related to low performance since it preoccupies athletes' thought in projecting one's failure toward external bodies in steady of accepting responsibility to use their optimal potential.

5.3 Locus of Control and Personality Characteristics as Predictors of Athletic Performance

LOC and personality characteristics were entered in the regression model to know their contribution in explaining the variance of performance time at SDR, MDR and LDR track events. However, the regression coefficients of determination do not satisfactorily explain the variance in performance at a significant alpha level in all running events.

The multiple regression analysis portray that the contributions of LOC and personality characteristics for the variance in athletic performance were not statistically significant among athletes across all track events considered in this study. This could be explained as personality variables are more likely to appear in interaction – rather than direct – effects, such as influencing the likelihood of converting one's ability into achievements (Barrick & Mount, 1991). This implies that locus of control and personality characteristics have less direct influence on athletic performance.

5.4. Interrelationships of Demographic variables, LOC, Personality Characteristics and Athletic Performance

This study tried to examine the relationships of independent variables (demographics characteristics, LOC and personality characteristics) and athletic performance. Among the demographic variables age and frequency of participation in athletics competition were found to correlate negatively and significantly with best performance time($r = -.403$, $r = -$

.422, at $p < .05$ respectively) at 5000m track event. Moreover, age was negatively and significantly correlated with best performance time($r = -.441$, $p < .05$) at 3000m running type. It suggests that as the age of the athlete become relatively older, their athletics performance become high (shorter time scored). Hence, those athletes score better performance at their best field of events when they have been relatively older in their age than their partners. Moreover, frequency of participation and average monthly income were positively and significantly correlated with number of medals earned by the participants. Those athletes who participate in athletic performance frequently and other athletes stayed in their club for long time earned more number of medals.

The frequency of participation in athletic competitions was negatively correlated with best performance time at MDR events. Being involved in more athletic competition was associated with better athletic performance across the track events except at 200m event at which positive correlation was observed.. Even though no literatures exist to support or contradict, it could be due to the motivations and experience brought from the frequent participation in athletic competition associate with better performance at relatively longer distance events.

The demographic variables considered in the study were also entered in to regression analysis to see its predictive ability of athletic performance at all events. Those characteristic consisting of age, educational level, frequency of participation in athletic competitions, amount of time stayed in clubs and average monthly income jointly account about 37.1% ($R=.71$, $p < 0.05$) and 40.2% ($R = .739$, $p < .05$) of the variance in best performance time at 200m and 400m track events at a significant level respectively. Moreover those demographic variable were able to explain 44.2% of the variance of best performance time significantly $R = .751$, $p < .05$) at 5000m track event. In this regard , Bale, Bradbury and Colley (1986) found that along with other factors the type and frequency of training and the number of years running were the best predictors of running performance and success at the 1O km distance.

The independent sample t-test also confirm that statistically significant variation exist between male and female athletes on some personality characteristics at certain running

events. But there is no significant difference between male and female athletes on both dimensions of LOC across all types of track events in this study. In contrast, Mamlin, Harris, and Case (2001) described that males tend to be the more internal than females.

The independent sample t-test analysis reveals that male and female athletes' mean values on neuroticism personality characteristics was significantly different at 200m($t = -2.150$, $df = 32$, $p<.05$). This shows female athletes score higher mean value compared to male athletes on neuroticism at this event. Moreover, the finding of the study indicate statistically significantly sex differences on openness to experience and agreeableness ($t = -2.082$, $t = -2.786$, $df = 25$, $p < .05$) at 3,000m running event. Male and female athletes were significantly different on extraversion ($t = 2.065$, $df = 31$, $p < .05$) at 5,000m track event. This implies that male athletes were more extravert than female athletes at the given event.

5.5. The Role of Counseling to Improve Athletic Performance

The athletes tried to explain their psychological problems which affect their athletic performance. The responses indicated that those psychological factors were the most ignored and unexplored even though it was most prevalent and hurt performance of athletes. Counseling services were given in any of the athletics clubs to alleviate those observed psychological problems of athletes.

Researchers have been identifying the determining factors of athletic performance for decades. According to Gleeson (2002) athletes fail to perform to the best of their ability if they become infected, stale, sore or malnourished. Similarly, this study also indicated that health related factors like injury, common illness, discomforts and inappropriate eating habits of athletes were deteriorating factors of athletic performance. Moreover, both the athletes and coaches reported that overtraining in seeking of good performance and inadequate rests among athletes due to several reasons contribute for the failure of many athletes. Likewise, Excessive training with insufficient recovery can lead to a debilitating syndrome in which performance and well being can be affected for months (Gleeson, 2002).

Furthermore, psychological problems were indicated as the most prevalent and hammering the growth of athletic performance among many of the respondents. Those psychological problems listed as the determinant factors of performance include, extreme fear, unwise goal setting, anxiety, over arousal, inappropriate eating styles, hopelessness, restless feeling, etc. above all wrong beliefs on "evil spirit/power" is the current problem in which many athletes were overwhelmed in various competitions even if they have a potential talent as the elite contestant. Those problems seem either parts or closely related to the individual personality traits and internal-external locus of control.

Even though those athletes have encountered several problems, the respondents reported that counseling services was not provided for them earlier. About 94% of the athlete respondents showed the need of counseling services for various purposes. The problems of athletes described in the open ended questions and interview analysis also show the status of counseling practices and need of counseling interventions for alleviating their problems. As the analyses indicate most of those athletes externalize their failure inappropriately by externalizing to things outside themselves. The belief of those athletes on "*power/evil sprit*" is a good evidence to show the way most athletes have been externalizing athletics events inappropriately. The belief on this "*evil sprit*" reigned in most athletes as reported from coaches and some athletes may be due to the way athletes perceive it, attitudes and the cognitive appraisal of the individual about that "*evil spirt*". This could be possibly resolved through psychological treatments by employing various counseling intervention mechanisms.

The respondents of this study explained importance or values of psychological support for improvement of athletic performance. They pointed out that without applications of psychological principles, success in athletics is unthinkable. The existing problems of athletes can be witnesses for the need of counseling services for athletes. Hamilton (2000) also stated that there is a theoretical rationale that psychology plays a critical role in the dominance of the East African runner. Even though the theoretical explanations indicate the role of psychology for the success of east African athletes, there have been no organized psychological services provided for Ethiopian athletes in general.

Chapter Six

6. Summary, Conclusions and Recommendations

6.1 Summary

This research was conducted on 10 athletics sport clubs which have been known in producing competent athletes who covers most of the national athletics team. The main purpose of the study was to investigate the relationships of athletic performance with locus of control and personality characteristics of Ethiopian athletes. Attempts also made to examine counseling intervention strategies employed to enhance the athletes' performance.

Data were collected using Internal-external locus of control scale, big five personality inventory and semi structured interview questions. The scales were adapted from reliable sources and good reliabilities also reported from these sources. Before the instruments were used to collect data, it was translated in to Amharic language and try out was also conducted on 30 athletes. Adequate reliabilities obtained from pilot and some modifications were made on few items of the given scales before application.

After the athletes were selected through simple random sampling technique from three running events at each sport clubs, the questionnaires (225) were distributed for the participants during athletic training programs. Among the questionnaires distributed to sample athletes, 208 questionnaires were properly filled and returned. Others were either not returned or rejected since the items were not properly filled.

The quantitative data was analyzed using statistical methods like Pearson product moment correlation, Multiple regression analysis, stepwise multiple regression and independent sample t-test. On the other hand, the qualitative data obtained from open ended questions of athletes and interview with coaches were organized, integrated, explained and narrated as the respondents described.

Through applying the above statistical and qualitative methods, data was analyzed and the following results were obtained:

- In one way or the other the demographic variables were related with performance time and the main independent variables.

- Internal LOC was positively and not significantly correlated with best performance time at SDR and MDR events. Similarly, external LOC was positively and significantly associated with best performance time ($r = .396$, $p < .05$) at 3,000m track event.

- Neuroticism was positively and significantly correlated with best performance time of athletes ($r = .483$, $p < .01$) at 200m track event. In contrast, neuroticism was negatively and significantly correlated with best performance time($r = -.322$, $p < .05$) at 1500m running event.

- Agreeableness was positively and significantly correlated with best performance time ($r = .454$, $p < .05$) at 400m track event .

- Comparison of male and female athletes on internal external locus of control using independent sample t-test found no significance differences at all specific six track events.

- Females were scoring higher on openness to experience and agreeableness ($t = -2.082$, $t = -2.786$, $df = 25$, $p < .05$) at 3,000m running event. However male athletes were relatively higher on extraverion than females at 5000m track event.

- There was no significance difference by sex regarding the personality characteristics of conscientiousness at all running events.

- The multiple regression analysis indicated that demographic variables were able to explain the variance in best performance time at significant level at SDR events. However, those variables entered in the regression model did not contribute for variances in athletic performance significantly at MDR events.

- The main independent variables(LOC and OCEANs) entered in the regression model were not significantly contribute for the variances in best performance time of those athletes across all track events considered in this study.

- The athletes described psychological, coach related, health related, hard working and God's will as the predisposition factors for their success or failures in athletics championships.

- All of the respondents acknowledge the importance of counseling service for the improvement of athletic performance and psychological wellbeing during champions.
- The coaches emphasized on wrong beliefs reigning among majority of athletes' mind and its devastating effect on athletic performance not only at sport clubs but also at national levels.
- Both the athletes and couches assured that there was no professional counseling services provided for athletes even though deep rooted problems which need psychological intervention had been existed in the sport clubs. However, the coaches provide simple advice for athletes even though they did not take training courses.

6.2 Conclusions

Even though possible attempts have been done to minimize the influence of limitations on the findings of the study, it could not be avoided. some restrictions encountered this study include: Due to shortage of time and finance the samples were drawn only from the known sport clubs; the instruments (BFI-44 and modified Rotter's I-E scale) used in this study were new to our culture and were not widely used earlier in our context; the athletic performance of the participants was also collected mainly through self report. Official documented data about the athletes' performance was not collected due to difficulties in obtaining organized actual data of athletes' performance from their clubs. These limitations need to be considered on the conclusions forwarded in the study.

The following conclusions are drawn based on the findings of the study:

- As the demographic information indicated, the average age of the respondents was around 20. Moreover, the majority of those athletes found in junior and high school educational ladders. There were also athletes at elementary educational levels. Thus, athletes do not go ahead in their educational aspects even though most of them found at the most fertile stage that is period of adolescence.
- The analysis indicated that internal locus of control was positively related with performance time at SDR and MDR events. It implies those athletes who score high on

internal locus of control scale at SDR and MDR scored low athletic performance. On the other hand, external locus of control was negatively and significantly associated with performance time at 3,000m track event. This means those athletes with higher external locus of control scored better athletic performance at the given track event.

- The finding of the study showed that those athletes high on neuroticism scored low athletic performance at SDR events. In contrast, those athletes high on neuroticism achieved high athletic performance at 1500m track event.
- The statistical t-test analysis revealed that there was no sex difference on internal-external locus of control across all types of running events.
- There was no significance difference between male and female athletes on conscientiousness personality characteristics. But, female athletes trained at 3000m were scoring higher on openness to experience and agreeableness than male athletes in.
- The correlation coefficients of locus of control and personality characteristics with best performance time showed discrepancies to a certain degree across the three types of running. Thus, the relationships of athletic performance with locus of control and personality characteristics vary by type of running events.
- The participants of the study reported that athletes had been bounded by several troubles. The coaches were tried to help them through simple advice to solve the existing problems. However, professional counseling or any other psychological services have not been provided for athletes at all research sites. Furthermore, there were no advanced psychological intervention mechanisms applied to improve the existing conditions among athletes including their athletic performance.
- Several issues related to athletic performance were explained such as the influence of personality on performance, the intervention strategies provided for athletes, and the inherent psychological problems which influence athletic performance. Above all, the respondents particularly coaches and the given cases narrated in the analysis show the "beliefs on evil sprit/power" was the most hidden and prevalent problem that puts a devastating influence on performance of many athletes' performance even though they have physical talents.

- In addition to what this study explored some details about athletics performance, Gould et al., cited in (Samulski, & Lopes, 2008) point out that "Successful Olympic Performance is a complex, multifaceted, fragile and long-term process that requires extensive planning and implementations. Attention to detail counts, but must also be accompanied by flexibility to deal with numerous unexpected events". Hence, producing successful athletes for international championships entail determination, cooperative and organized actions of all responsible bodies like administrative members, coaches, counselors, parents, athletes and all athletics team members.
- In conclusion, there was a deficiency of local studies to make comparisons with previous studies done by researchers from overseas .Therefore, more studies need to be carried out locally in the future. It is hoped that that this study's finding would be beneficial in upgrading the sport quality in Ethiopia.

6.3 Recommendations

- The findings of the study showed differences in personality characteristics and locus of control beliefs among athletes at different running events. Thus, the coaches, program managers, psychologists and other athletics team members need give due attention to these differences when they design and implement varies strategies to enhance athletic performance;
- The qualitative results of the research revealed that widely deep rooted problem that is frustrations as well as beliefs on *"power/evil sprit/magic"* had been prevailing among many of the athletes in the study area. However, no one speaks out either about the benefits or disadvantages of such belief rather it was kept as secretes and sin. Since these beliefs are mainly culture oriented, it needs coordination of various bodies. Thus, professionals from different disciplines should work hand in hand in order to halt or at least to reduce its impact on athletes' performance and their psychological wellbeing. In order to avoid this deep rooted problem, special attempts need to be done through drama, film, psychological treatment, discussion and education programs with athletes, , media advocacy, etc about the existing situations by the responsible bodies;

- In order to alleviate the existing multifaceted problems of athletes, adequate professional counseling services need to be provided for all athletes. Therefore, those responsible bodies such as Ethiopian Athletics Federation and club administrators should facilitate conditions to include counselors as athletics team members/staffs at each sport clubs and national level;
- Those responsible bodies and professionals close to athletes should give more emphasis on athletes' achievement orientations and perception of outcomes. Thus, adequate guidance need to be given in setting smart goals and internalize the happenings in their life appropriately;
- Coaches and other helping professionals, especially those who are involved with assisting athletes need be aware of the Locus of Control orientation of these athletes. Moreover, personality characteristics and locus of control orientations of athletes should be incorporated as main contents of training programs provided for coaches and supportive staffs of athletics team
- Currently, since coaches are the most close professionals who are responsible to give supports for athletes at the present, upgrading the efficiency of coaches should be done by providing psychological and counseling short term trainings and workshops by each sport clubs, Ethiopian athletics federation and other governmental or non-governmental organizations;
- Since this area has not been investigated well in our country, further psychological investigations should be carried out through increasing the sample size and employing other instruments.

References

Abera Dessalegne. (2008). *Didactics of track and field (*unpublished teaching material). Dilla University, Dilla, Ethiopia.

Adas, A. & Qatamy, N. (2000). *Fundamentals of psychology* (1st ed.). Amman, Jordan: Dar Al-fikr.

Adas, A. (1999). *Educational psychology* (1st ed.). Amman, Jordan; Alfikr Houses.

Bale, P., Bradbury, D., & Colley, E. (1986). Anthropometric and training variables related to 10km running performance. *British Journal of Sports Medicine,* 20(4), 170-173.

Barbi, L., and Hall, C. (2008). Athletes' use of modeling in injury rehabilitation. In abstracts of Sport and Exercise Psychology. *Journal of Sport & Exercise Psychology*, 30(Suppl.), 146-215

Barrick, M. R., & Mount, M. K. (1991). The Big Five dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44 (1), 1-26.

Barrick, M. R, Stewart, G. L, & Piotrowski, M. (2002). Personality and job performance: Test of the mediating effects of motivation among sales representatives. *Journal of Applied Psychology,* 87 (1), 1-8.

Cooper, J.M., Laverry, J., & Perrin,W. (1960). *Track and Field for Coach and Athlete (* 2th ed.). Engelwood cliffs, New Jersey: prentice hall, Inc.

Costa, P. T., & McCrae, R. R. (1985). *The NEO personality inventory manual.* Odessa, FL: Psychological Assessment Resources.

Costa, P. T., & McCrae, R. R. (1992). *The NEO-PI-R: Professional manual.* Odessa, FL: Psychological Assessment Resources.

Costa, P.T., & McCrae, R. R. (1995). Domains and facets: Hierarchical personality assessment using the revised NEO personality inventory. *Journal of Personality Assessment, 64(1), 21-50*

Costa, P. T., McCrae, R. R., & Siegler, I. C. (1999). Continuity and change over the adult life cycle: Personality and personality disorders. In Cloninger, C. R. (Ed.), *Personality and Psychopathology* (pp.129-154). Washington, DC: American Psychiatric Press, Inc.

Cox, R. H. (2002). *Sport psychology: Concepts and applications* (5th ed.). USA: McGraw-hill Company.

De Vos, A.S. (2002). Research at grass roots: For social sciences and human service professionals. Pretoria - South Africa: Van Schaik Publishers.

EAF. (2009). *የኢትዮጵያ አትሌቲክስ ፌዴሬሽን አደረጃጀትና አሠራር ሂደት ማሻሻያ ጥናት ሰነድ(ያልታተመ).* አዲስ አበባ፤ ኢትዮጵያ።

Egan, S., & stelmack, R.M. (2003). Personality profiles of Mount Everest climbers. *Personality and Individual difference*, 34(8), 1491-1494.

Furnham, A., Forde, L., Ferrarri, K. (1999). Personality and work motivation. *Personality and Individual Differences*, 26, 1035-1043.

Gershow, D. (1989). *Locus of control: Line of life.* Retrieved from www.azwestern.edu/psy/dgershow/lol/controllocus.html

Gleeson, M. (2002). Biochemical and immunological markers of overtraining. *Journal Of Sports Science And Medicine, 1, 31-41.*

Gould, D. & Eklund, R. C. (1991). The application of sport psychology for performance optimizations. *Journal of Sport Sciences,* 1, 10-21.

Gould, D., Dieffenbach, K., & Moffett, A. (2002). Psychological characteristics and their development in Olympic champions. *Journal of Applied Sport Psychology,* 14, 172-204.

John, O. P. & Srivastava, S. (1999). The big five trait taxonomy: History, measurement and theoretical perspectives. In L. Pervin and O.P. John (Eds.), Handbook of personality: Theory and research (2nd ed.). New York: Guilford (in press).

Johnson, J. S. (2003). *Differences in male and female athletes and their perceptions of an ideal coach with respect to locus of control, competitiveness, goal-orientation and win-orientation (*unpublished master's thesis*).* University of Wisconsin-Stout. Retrieved from http://www.pdfone.com/ebook

Judge, T.A., Higgins, C.A., Thoresen, C.J., & Barrick, M.R. (1999). The big five personality traits, general mental ability and career success across the lifespan. *Personnel Psychology*, 52, 621-652.

Lucia, A., Oliva´n, J., Bravo, J., Gonzalez-Freire, M., & Foster, C. (2008). The key to top-level endurance running performance: A unique example. *British Journal of Sport Medicine,* 42,172-174

Mamlin, N., Harris, K. R. & Case, L. P. (2001). A methodological analysis of research on locus of control and learning disabilityies: rethinking a common assumption. Journal of special Education, Winter, http://www.findarticles.com/cf_0/m0HDF/4_34/76157546/

Mathews, G., Davis, R., Westerman, J., & Stammers, B. (2000). *Human performance: Cognition, stress and individual differences* (1st ed.). Great Britain: psychology press 27 church road.

Matsumoto, D., & Takeuchi, M. (2000). Psychological correlates of training and performance in senior and junior elite judo athletes. *Budogaku Kenkyu (Research Journal of Budo),* 33, 11-19.

McAdams. (2001). *The person: An integrated introduction to personality psychology.* Philadelph ia, PA: Harcourt College Publishers.

McCrae, R. R. & Costa, P. T. (1987). Validation of the Five-Factor Model of personality across instruments and observers. *Journal of Personality and Social Psychology, 52(1),* 81-90.

McCrae, R. R. & John, O. P. (1992). An introduction to the Five-Factor Model and its applications. *Journal of Personality, 60(2),* 175-215.

McCrae, R. R., Costa, P. T., Martin, T. A., Oryol, V. E., Rukavishnikov, A. A ., & Senin, I.G. et al. (2004). Consensual validation of personality traits across cultures. *Journal of Research in Personality, 38,* 179-201.

Millar, D.J. & Cawley, J.E. (1960). *Athletics: A coaching handbook for tropical areas.* London And Southampton ,Great Britain: the Camelot Press Ltd.

Millennium run official run magazine. (2007 September 9). 2007 Toyota great Ethiopian run, (7th ed.) Addis Ababa, Ethiopia: Master Printing Press plc.

Monte, A. D. (1999). The efficiency in sport. *The Hong Kong journal of sport medicine and sport science*, IX, 74-76.

Nashawati, A. (1996). *Educational psychology.* Ibrid, Jordan: Dar al-furqan.

O'Hearn, T. C. (2002). Sports Psychotherapy. In M. Hersen, and W. Sledge (Eds.) *Encyclopedia of Psychotherapy* (Vol. 2, pp. 687-692). USA: Academic presses.

Onywera ,V. O., Scott, R. A., Boit, M. K. , & Pitsiladis, Y. P. (2006). Demographic characteristics of elite Kenyan endurance runners. *Journal of Sports Sciences*, 24(4), 415 – 422.

Podar, I., Hannus, A., & Allik, J. (1999). Personality and affectivity characteristics associated with eating disorders: A comparison of eating disordered, weight preoccupied, and normal samples. *Journal of Personality Assessment, 73(1),* 133-147.

Qatamy, Y. (2000). *Child's cognitive development (*1st ed.). Amman, Jordan: Al Ahleyya.

Rotter, J. B. (1966). Generalized expectancies for internal vs. external control of reinforcement. *Psychological Monographs, 80,* 1-28.

Rotter, J. B. (1982). Social learning theory. In N. T. Feather. (Eds.). *Expectations and actions: Expectancy-values models in psychology* (pp. 241-260). Newjerssy, USA: Lawrence Erlbaum associates, Inc.

Samulski, D.M. & Lopes, M.C. (2008). Counseling Brazilian athletes during the olympic games in athens 2004: Important issues and intervention techniques. *IJSEP.*, 6, 277-286.

Scott, R. A., Georgiades, E., Wilson, R. H., Goodwin, W. H., Wolde, B., & Pitsiladis, Y. P. (2003). Demographic characteristics of elite Ethiopian endurance runners. *Medicine of sciences of Sports and Exercise*, 35(10), 1727-1732. Retrieved from http://journals.lww.com/acsmmsse/Abstract/2003/10000

Scott, R. A., Pitsiladis, Yannis P. (2006). Genetics and the Success of East African Distance Runners. *International Sport Medicine Journal,* 7, 172-186. Retrieved from http://www.ismj.com.

Scott, R. A., Wilson, R. H., Goodwin, W. H., Moran C. N., Georgiades, E., Wolde, B. & Pitsiladis,Y.P. (2005). Mitochondrial DNA lineages of elite Ethiopian athletes. Retrived from http://www.sciencedirect.com/science?

Seibert, S. E. & Kraimer, M. L. (2001). The five factor model of personality and career success. *Journal of Vocational Behavior,* 58, 1-21.

Shertzer, B. & Stone, S.C. (1980). *Fundamentals of Counseling (*3rd ed.). Boston: Houghton Miffilm Company.

Strickland, B. R. (Eds.). (2001) .The Gale encyclopedia of psychology (2nd ed.). Ohio, USA: Eastward Publication Development Pepper Pike.

Sung, H. (2001). Turning dream in to reality. *International Journal of Applied Sport Sciences,* 13, 131-143.

Touq, M. & Adas, A. (2001). *Introduction to psychology* (5th ed.).Amman, Jordan: Dar Al-fikr.

Weinberg, R. S. (1994). Goal setting and performance in sport and exercise settings: A synthesis and critique. *Medicine and Science in Sports and Exercise*, 26, 469-477.

Wolde, B. & Gaudin, B. (2008).The institutional organization of Ethiopian athletics. In *Annales D'Ethiopie; የኢትዮጵያ ዓመታዊ መጽሔት፡* vol. XXIII, 2007-2008. paris: by De Baccord.

Wondimu Tadesse. (2003). Athlete-centered sport: A relatively new and progressive concept of contemporary era. *Institute of Educational Research FLAMBEAU*, 10(2), 73-78. Addis Ababa University.

Yohannes G/Egziabher. (n.d). *Great Olympic, great Ethiopian athletes great victory: Our boys and girls have done it again and what a joy to all Ethiopians everywhere!* Retrieved on 26 February 2010 from http://www.waltainfo.com/index2.php?option=com_content&do_pdf=1&id=2325

Yusuf Omer Abdi (1998). *Gender sensitive counseling psychology: A handbook for Ethiopian high school counselors.* AAU, Addis Ababa

Appendix A: A Questionnaire Amharic Version

በአዲስ አበባ ዩኒቨርሲቲ
ሣይኮሎጂ ትምህርት ተቋም
ካውንስሊንግ ሣይኮሎጂ ድህረ-ምረቃ ፕሮግራም

<u>አጠቃላይ መመሪያ</u>

የዚህ ትምህርታዊ ምርምር ዓብይ አላማ የሰው ልጅ ስብዕና (ባህሪ) ከአትሌቲክ ውጤት ጋር ያለውን ትስስር በመዳሰስ የአትሌቶችን ውጤት በበለጠ ለማሻሻል እና የሚታዩ ችግሮችን ለመቅረፍ የሚረዱ የመፍትሄ ሀሳቦችን ለመጠቆም ታስቦ ነው። ስለሆነም በዚህ መጠይቅ ውስጥ ስብዕናን የሚገልጹ የተለያዩ ጥያቄዎች እንደሚከተለው ተዘርዝረዋል።እነዚህ ጥያቄዎች ትክክል ወይም ስህተት የሆነ መልስ የላቸውም በመሆኑም ከተሰጡት አምስት አማራጮች በይበልጥ ይገልጸኛል ብለው የሚገምቱትን በተሰጠው ሰንጠረዥ ውስጥ በእያንዳነዱ ጥያቄ ትይዩ ይህን ምልክት(√) በማድረግ ይምረጡ ፤ ሌሎች ጥያቄዎችንም እንደ አስፈላጊነቱ መልስ ይስጡባቸው። በመጨረሻም የሚሰጡት ምላሽ ለጥናቱ ስኬታማነት ወሳኝ መሆኑን ተገንዝበው በታማኝነት ምላሽ በመስጠትና ሁሉንም ጥያቄዎች በመመላት እንድተባበሩኝ በትህትና እጠይቃለሁ።

<u>ማሳሰቢያ</u> :-

- በዚህ መጠይቅ በየትኛውም ቦታ ላይ ስም መጻፍ አያስፈልግም።
- የሚሰጡት መረጃ በሚስጥራዊነት የሚጠበቅ ሲሆን ማንንም በምንም አይነት ዓይጎዳም።
- በመጠይቁ ውስጥ መልስ ሳይሰጡ የተውት ጥያቄ ካለ ጥናቱን ያልተሟላ ስለሚያደርገው ለሁሉም ጥያቄዎች ምላሽ መስጠትዎን ያረጋግጡ።

ለሚያደረጉልኝ ትብብር ሁሉ በቅድሚያ አመሰግናለሁ።

ክፍል አንድ፡-አባክዎትን የሚከተሉትን ባዶ ቦታዎች ይሙሉ እንዲሁም አማራጭ ለተሰጣቸው ጥያቄዎች የሚስማሙበትን በማክበብ ይምረጡ፡፡

1. በስልጠና ላይ ያለህበት/ሽበት የእስፖርት ክለብ ስም ----------
2. ፆታ ፡- ሀ) ሴት ለ) ወንድ
3. ዕድሜ፡- ----------
4. የጋብቻ ሁኔታ፡ ሀ) ያላገባ/ች ለ) ያገባ/ች
5. አሁን ያለዎት የትምህርት ደረጃ፡ ----------
6. የምትሳተፍበት/ፊበት ወይም እየሰለጠንክ/ሽ ያለው በየትኛው የአትሌቲክስ ዘርፍ(ርቀት) ነው?

   ሀ) በአጭር ርቀት ለ) በመካከለኛርቀት ሐ) በረጅም ርቀት

7. በምትወዳደርበት/ሪበት የሩጫ ዘርፍ(ርቀት) በአለፉት ሶስት ወራት ከአስረ በማይበልጡ እና በማያንሱ የአትሌቲክስ ውድድሮች ወይም ልምምዶች በአገር ውስጥ ያስመዘገብክው/ሽው ምርጥ ውጤት (በሰዓት ፣ ደቂቃ ፣ ሴኮንድ ወይም ማይክሮ ሴኮንድ) ስንት ነው? --------
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8. በአለፉት ሁለት ተከታይ የውድደር ዓመታት በተወዳደርክባቸው/ሽባቸው የሩጫ ዘርፍ የተሸለምከው/ሽው የሜዳሊያ ብዛት ስንት ነው?

   በአገር ውስጥ ----------ከአገር ውጭ ----------
9. በአለፉት ሁለት ተከታይ የውድደር ዓመታት ለስንት ጊዜ በሩጫ ውድድር ተሳትፈሃል/ሻል? በአገር ውስጥ ----------ከአገር ውጭ ----------
10. በአሁኑ ወቅት እየተሳተፍክ ባለህበት/ሽበት የሩጫ ዘርፍ ለስንት ዓመት/ወር ያህል በክበብህ/ሽ ቆይተሃል/ሻል? ----------
11. በአሁኑ ወቅት ባለህበት/ሽበት ክለብ ውስጥ በየወሩ የምታገኘው/ኝው የክፍያ መጠን በአማካይ ስንት ብር ነው?----------

ክፍል ሁለት፡ የሚከተሉትን 30 ዐረፍተ ነገሮች በጥንቃቄ ካነበብክ/ሽ በኋላ የምትስማማበት/ሚበት ወይም የማትስማማበት/ሚበት መሆኑን በሰንጠረዡ ውስጥ ከተሰጡት አምስት አማራጮች ውስጥ በተሰጠው ክፍት ቦታ ይህን ምልክት (√) በማደረግ ይምረጡ።

ተ.ቁ.	ዓረፍተ ነገሮች	የመስማማት/ያለመስማማት ሁኔታ				
		በጭራሽ አልስማማም	በመጠኑ አልስማማም	ምንም አልወሰንም	በመጠኑ እስማማለሁ	በጣም እስማማለሁ
1	በሰዎች ህይወት ውስጥ አብዛኞቹ የማያስደስቱ ነገሮች የሚከሰቱት በመጥፎ ዕድል ምክንያት ነው					
2	መጥፎ እድሎች/አጋጣሚዎች ሰዎች ከሚሰሯቸው ስህተቶች የሚመነጩ ናቸው					
3	ሰዎች ለወደፊት በዚህ አለም ላይ የሚገባቸውን ክብር ያገኛሉ					
4	እንደ አጋጣሚ ሆኖ አንድ ሰው ምንም ያህል በጥር ብዙ ጊዜ ክብሩ ዕውቅና ሳያገኝ ያልፋል					
5	አለልጣኞች ለአትሌቶች ሚዛናዊ አይደሉም የሚለው ሀሳብ እርባና ቢስ ነው					
6	አብዛኞቹ አትሌቶች የሚያጋጥሟቸው ክስተቶች በውጤታቸው ላይ እስከምን ድረስ ተጽዕኖ እንደሚያሳድሩባቸው አይገነዘቡም					
7	ምንም ያህል ተግተህ ብትጥር ጥቂት ሰዎች አይወዱህም					
8	ሌሎች ሰወች እንዲወዷቸው ማድረግ ያልቻሉ ሰዎች ከሌሎች ጋር እንዴት መጓዝ አንዳለባቸው አይገነዘቡም					
9	ብዙ ጊዜ ሊሆን የሚችለው ሊሆን አማኝቸዋለሁ					
10	በእኔም እንዳየሁት ተግባራዊ እርምጃ (ውሳኔ) ለመስጠት በእጣ ፈንታ ላይ እምነት መጣል በፍጹም ለስኬት አያበቃም					
11	ስኬታማነት ጠንክሮ የመስራት ጉዳይ ነው፤ ዕድል ለስኬት ትንሽ ወይም ምንም የሚፈይደው ነገር የለም					
12	ጥሩ ስራ ለማግኘት በዋናነት በትክክለኛ ቦታ በትክክለኛ ጊዜ በመሆን ላይ የተመሰረተ ነው					
13	እትድ በማወጣበት ወቅት ተግባራዊ እንደማደርገው በአብዛኛው እርግጠኛ ሁኜ ነው					
14	ቀድሞ ማቀድ ሁልጊዜ ብልህነት አይደለም ምክንያቱም የአብዛኞቹ ነገሮች ስኬት የመልካም ወይም የመጥፎ እድል ጉዳይ በመሆኑ					
15	ከእራሴ አንጻር የምፈልገውን ማግኘቱ ከዕድል ጋር ትንሽ ወይም ምንም ግንኙነት የለውም					
16	ብዙ ጊዜ ሳንቲም በማንን(በማሸር) እጣ በማውጣት ምን መሰራት እንዳለብን ብንወስን መልካም ነው					
17	አብዛኞቹ ሰዎች ህይወታቸው እስከምን ድረስ በአጋጣሚ ክስተቶች ቁጥጥር ስር እንደሆነ አይገነዘቡም					
18	በእርግጠኝነት እንደ ዕድል ያለ ነገር የለም					
19	አንድ ሰው በትክክል የሚወድህ ወይም የማይወድህ መሆኑን ለማወቅ ያስቸግራል					
20	የጓደኞችህ ብዛት የሚወሰነው ምን ያህል መልካም ሰው በመሆንህ ላይ ነው					
21	ያጋጠሙን መጥፎ ክስተቶች ለወደፊት በመልካም ነገሮች ይካካሳሉ					
22	አብዛኞቹ መጥፎ ዕድሎች የችሎታ ማጣት፣ የዕውቀት ማነስ፣ ስንፍና ወይም በአጠቃላይ የሶስቱም ውጤቶች ናቸው					
23	አንድ አንድ ጊዜ አለልጣኞች እንዴት ደረጃ እንደሚሰጡ አይገባኝም					
24	በጥንካሬ ልምምድ ማድረጌና ያስመዘገብኩት ውጤት ቀጥተኛ ግንኙነት አላቸው					
25	ብዙ ጊዜ በሚያጋጥሙኝ ነገሮች ላይ አነስተኛ ተጽዕኖ እንዳለኝ ይሰማኛል					
26	ለእኔ አጋጣሚ ወይም ዕድል በህይወቴ ጠቃሚ ሚና አለው ብዬ ማመን አልችልም					
27	ሰዎች ብቸኛ የሚሆኑት ጓደኛ ለመሆን ስላልሞከሩ ነው					
28	ሰዎች የሚወዱህ ከሆነ ይወዱሃል፤ እነርሱን በጣም ለመሳብ መሞከር ያን የህል ጠቀሜታ የለውም					
29	በእኔ ላይ የሆነው የእራሴ ድርጊት ነው					
30	አንድ አንድ ጊዜ ህይወቴ ሊይዝ በሚችለው አትጣጫ ላይ በቲ ቁጥጥር እንደሌለኝ ይሰማኛል					

ክፍል ሦስት፡- በዚህ ሰንጠረዥ ውስጥ ስብዕናን አስመልክቶ 44 ዐረፍተ ነገሮች ተዘርዝረዋል። ለእያንዳንዱ ዐረፍተ ነገር አምስት አማራጮች ተሰጥተዋል። እያንዳንዱን ዐረፍተ ነገር ካነበብክ/ሽ በኋላ የአርሰዎን ስብዕና በሚገባ ይገልጸዋል ብለው የሚለማመቡትን ከተሰጡት የደረጃ አማራጮች ውስጥ በተሰጠው ክፍት ቦታ ይህን ምልክት (√) በማድረግ ይምረጡ።

በጥቅሉ እኔ----------

ተ.ቁ.	ስብዕናን የሚገልጹ ዓረፍተ ነገሮች	የመስማማት/ያለመስማማት ሁኔታ				
		በጭራሽ አልስማማም	በመጠኑ አልስማማም	አስማማለሁ ም አልልም አልልም	በመጠኑ አስማማለሁ	በጣም አስማማለሁ
1	ወግ ማውጋት እወዳለሁ					
2	ከሌሎች ሰዎች ስህተት እፈልጋለሁ					
3	የተሟላ ስራ እሰራለሁ					
4	ድብርት እንደሁም ትካዜ ይሰማኛል					
5	አዲስ ሀሳብ አፍላቂና የፈጠራ ባለቤት ነኝ					
6	ቁጥብ ነኝ					
7	ለራሴ ቅድሚያ የማልሰጥና ሌሎችን የምረዳ ነኝ					
8	በመጠኑ ግያሌሽ አሆናለሁ					
9	የተረጋጋሁና ጫናን በአግባቡ የምቋቋም ነኝ					
10	ስለብዙ የተለያዩ ነገሮች ለማወቅ እጓጓለሁ					
11	ብዙ(እምቅ) ሃይል አለኝ					
12	ጠብ አነሳሽ ነኝ					
13	ታማኝ ሰራተኛ ነኝ					
14	በሐሳብ መወጣጠር ያጋጥመኛል					
15	ብልሀና ጥልቅ አሳቢ ነኝ					
16	ከፍተኛ ወኔ አለኝ					
17	ይቅርታ የማድረግ ተፈጥሮ አለኝ					
18	ዝርክርክነት ይታይብኛል					
19	በጣም እሸበራለሁ					
20	ንቁ አይነ-ህሊና አለኝ					
21	ዝምተኝነት ያጠቃኛል					
22	በጥቅሉ እምነት የሚጣልብኝ ነኝ					
23	ቸል ማለት አበዛለሁ					
24	በስሜት የተረጋጋሁና በቀላሉ የማልከፋ ነኝ					
25	የፈጠራ ሰው ነኝ					
26	በእራስ የመተማመን ስብዕና አለኝ					
27	ለዘብተኛና ገለልተኛ አሆናለሁ					
28	ስራ ሳልጨርስ አልተውም					
29	ስሜቱ ተለዋዋጭ ነው					
30	ለስነ-ጥበብና ስነውበት ዕውቀቶች ልዩ ግምት አለኝ					
31	አንድ አንድ ጊዜ አይን-አፋርና ፈሪ ነኝ					
32	በአብዛኛው ለማንኛውም ሰው ጥሩ አሳቢና ሩህሩህ ነኝ			.		
33	ስራዎችን በብቃት እሰራለሁ					
34	ውጥረት ባለበት ሁኔታ መረጋጋትን እመርጣለሁ					
35	ተደጋጋሚ የሆነ ስራ እመርጣለሁ					
36	ተጫዋችና ተግባቢ ነኝ					
37	አንድ አንድ ጊዜ በሌሎች እጨክናለሁ					
38	እቅዶችን አወጣለሁ በእነርሱም እመራለሁ					
39	በቀላሉ እበሳጫለሁ					
40	ምላሽ መስጠትና በሃሳቦች መቀላለድ እወዳለሁ					
41	አነስተኛ የጥበብ ፍላጎት አለኝ					
42	ከሌሎች ጋር መተባበር እወዳለሁ					
43	በቀላሉ እረበሻለሁ					
44	በጥበብ፣ሙዚቃ ወይም ስነ-ጽሁፍ የተካንኩ ነኝ					

ክፍል አራት፡-የሚከተሉትን ጥያቄዎች በጥሞና ካነበቡ በኋላ ግልጽ እና አጠር ባለ መልኩ ማብራሪያ ይስጡባቸው፡፡

45. ለውጤትሽ/ህ መሻሻል ወይም ማሽቆልቆል ምክንያት ይሆናሉ ብለው የሚያምኗቸው ነገሮች ምን ምን ናቸው?

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46. የአንተ/ች ስብዕና (ተከታታይና ወጥ ባህሪ) በውጤትህ/ሽ ላይ ተጽዕኖ ይኖረዋል ብለህ/ሽ ታስባለህ/ቢያለሽ?

ሀ) አዎ ለ) የለውም ፤ መልሰዎ አዎን ከሆነ እንዴት ስብእናዎ በውጤትህ/ሽ ላይ ተጽዕኖ ሊያሳድር እንደሚችል ቢያብራሩልኝ?

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47. እንደ እርስዎ አመለካከት ስነልቦናዊ ችግሮች ከአትሌቶች ውጤት ጋር አንጻራዊ ትስስር አላቸው ብለው ያምናሉ? እንዴት?

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48. የምክክር ስነ-ልቦና(ካውንስሊንግ ሳይኮሎጂ) አገልግሎት ማግኘት ወይም መጠቀም ይፈልጋሉን?

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ሀ) አዎ ለ) አልፈልግም

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49. በአጠቃላይ የምክክር ስነልቦና(ካውንስሊንግ ሳይኮሎጂ) አገልግሎት ለአትሌቶች ምን አይነት ፋይዳ ሊኖረው ይችላል ብለው ያስባሉ?

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50. የአትሌቶችን ሁለንተናዊ ችግሮችን ለማቃለልና ስኬታማ ለማድረግ ምን ዓይነት የምክክር ስነልቦና(ካውንስሊንግ ሳይኮሎጂ) አገልግሎቶችን ማግኘት ይፈልጋሉ?

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ስላደረጉልኝ ትብብር ሁሉ ከልብ አመሰግናለሁ!!

Part I: Personal Background Information

Direction: please fill the blank space and choose the letter that fit with your idea for those statements which have alternatives by circling for the following questions.

1. Your club's name ----------
2. sex :- a) Female b) Male
3. your age: ----------
4. marital status: a) single b) married
5. your educational level: ----------
6. Which one of the following track events of athletics in which you have been participating or training?

   a) Short distance b) middle distance c) long distance

7. What is your best performance time (in terms of hour, minute, second or microsecond) that you scored/recorded at athletic competitions or trainings (not more than and less than ten) in your best track event for the last three months in Ethiopia? ----------
8. How many medals you earned for the last two computational years in the track that you have been competing? ----------
9. How many times you have been participated in athletics championships for the last two computational years? ----------
10. How many years that you have been stayed at your club? ----------
11. What is the average monthly income you earned in your club? ----------

Part II: Modified Rotter's I-E Scale (Athlete's Self-report Scale; Rotter, 1966)

Direction:- There are 30 statements about locus of control beliefs and each statement has five alternatives. Read each item carefully and put this mark (√) under the alternative that best expresses your feeling about the statement.

S.N.	Internal-External locus of control items	Extent of agreement/disagreement				
		Disagree strongly	Disagree a little	Neither Agree Nor Disagree	Agree a little	Agree Strongly
1	Many of the unhappy things in people's lives are partly due to bad luck.					
2*	People's misfortunes result from the mistakes they make.					
3*	In the long run people get the respect they deserve in this world.					
4	Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.					
5*	The idea that coaches are unfair to athletes is nonsense.					
6	Most athletes don't realize the extent to which their performances are influenced by accidental happenings.					
7	No matter how hard you try, some people just don't like you.					
8*	People who can't get others to like them don't understand how to get along with others.					
9	I have often found that what is going to happen will happen.					
10*	Trusting fate has never turned out as well for me as making a decision to take a definite course of action.					
11*	Becoming a success is a matter of hard work, luck has little or nothing to do with it.					
12	Getting a good job depends mainly on being in the right place at the right time.					
13*	When I make plans, I am almost certain that I can make them work.					
14	It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.					
15*	In my case getting what I want has little or nothing to do with luck.					
16	Many times we might just as well decide what to do by flipping a coin.					
17	Most people don't realize the extent to which their lives are controlled by accidental happenings.					
18*	There really is no such thing as "luck."					
19	It is hard to know whether or not a person really likes you.					
20*	How many friends you have depends upon how nice a person you are.					

Part III: The Big Five Inventory-44

Direction: here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please put a tick (√) next to each statement to indicate the extent to which you agree or disagree with that statement.

How I am in general----------

S.No.	Items	Extent of agreement/disagreement				
		Disagree strongly	Disagree a little	Neither Agree Nor Disagree	Agree a little	Agree Strongly
1	Is talkative					
2	Tends to find fault with others					
3	Does a thorough job					
4	Is depressed, blue					
5	Is original, comes up with new ideas					
6	Is reserved					
7	Is helpful and unselfish with others					
8	Can be somewhat careless					
9	Is relaxed, handles stress well.					
10	Is curious about many different things					
11	Is full of energy					
12	Starts quarrels with others					
13	Is a reliable worker					
14	Can be tense					
15	Is ingenious, a deep thinker					
16	Generates a lot of enthusiasm					
17	Has a forgiving nature					
18	Tends to be disorganized					
19	Worries a lot					
20	Has an active imagination					
21	Tends to be quiet					
22	Is generally trusting					
23	Tends to be lazy					
24	Is emotionally stable, not easily upset					
25	Is inventive					
26	Has an assertive personality					
27	Can be cold and aloof					
28	Perseveres until the task is finished					
29	Can be moody					
30	Values artistic, aesthetic experiences					
31	Is sometimes shy, inhibited					
32	Is considerate and kind to almost everyone					
33	Does things efficiently					
34	Remains calm in tense situations					

S.No.	Items	Extent of agreement/disagreement				
		Disagree strongly	Disagree a little	Neither Agree Nor Disagree	Agree a little	Agree Strongly
35	Prefers work that is routine					
36	Is outgoing, sociable					
37	Is sometimes rude to others					
38	Makes plans and follows through with them					
39	Gets nervous easily					
40	Likes to reflect, play with ideas					
41	Has few artistic interests					
42	Likes to cooperate with others					
43	Is easily distracted					
44	Is sophisticated in art, music or literature					

BFI scale scoring: you will create scale scores by ***averaging*** the following items for each Big five domain (where **R** indicates using the reverse-scored item).

Extraversion: 1, 6R 11, 16, 21R, 26, 31R, 36

Agreeableness: 2R, 7, 12R, 17, 22, 27R, 32, 37R, 42

Conscientiousness: 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R

Neuroticism: 4, 9R, 14, 19, 24R, 29, 34R, 39

Openness: 5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44

Part IV: Open Ended Questionnaires

Direction: here are few question presented to you. Please describe or explain each of the items after you read it carefully.

45. What factors do you believe that responsible either for your success or failures in the world running?

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46. Do you think that your personality (persistent behaviors) could influence your athletic performance? a) Yes b) No, if your answer is yes how it can affect your athletic performance?

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47. In your view, do psychological factors have relationships with athletic performance?

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48. Have you got counseling services? A) yes B) no if you answered no, do you want to use counseling services? A) yes B) no

49. What do you think about the overall advantages of counseling services for athletes?

---.

50. In order to alleviate athletes' problems and help them to be successful, what kinds of counseling services need to be offered?

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Thank you heart fully for all cooperation you did!!

Appendix C: Structured Interview Questions

Participants' Interview Guide

The purpose of this study is to investigate and understand issues related to internal-external locus of control, personality characteristics of athletes and counseling intervention strategies used in relation with their athletic performance. To this effect, the responses that you provide us concerning these issues will help us to understand them and make this study meaningful. The information you give us will be kept confidential and we are very grateful for your cooperation.

1. How do you describe the general personality characteristics of athletes at their best event?
2. Do you think that athletes' personality characteristics could affect their athletic performance?
3. How do you describe the internal-external locus of control of your athletes at different track events? Which one of LOC type could lead athletes towards to be successful?
4. Have you been taking any psychological course/training? Do you think that counseling services are necessary for improving athletic performance? Are there any professional counselors/psychologists who are recruited in your club to provide psychological services?
5. Could you identify the major problems of your athletes that hinder them from success especially which needs psychological interventions?
6. What kinds of counseling intervention mechanisms/ strategies have been employed to improve athletic performance (during trainings, before and after athletic competitions etc.) in the sport club you are working? Are these actions adequate enough to tackle the problems?
7. As a coach, what do you suggest to enhance athletes' performance from psychological perspectives by the responsible bodies?

Thank you very much!

APPENDIX D. Descriptive Statistics of Independent Sample t-test across all types of running events.

Means and Standard Deviations for Male and Female athletes on LOC and personality characteristics (OCEAN) at SDR(200m)

	Sex	N	Mean	Std. Deviation	t
Internal LOC	Male	11	45.55	10.053	-1.292
	Female	23	49.22	6.445	
External LOC	Male	11	50.09	9.159	.173
	Female	23	49.57	7.879	
Openness	Male	11	32.55	3.643	.666
	Female	23	31.35	5.382	
Conscientiousness	Male	11	33.82	6.462	.584
	Female	23	32.48	6.171	
Extraversion	Male	11	27.64	3.443	.507
	Female	23	26.65	5.951	
Agreeableness	Male	11	34.36	5.163	.008
	Female	23	34.35	5.967	
Neuroticism	Male	11	20.55	3.984	-2.150*
	Female	23	23.87	4.320	

*t is significant at $p < .05$

Means and Standard Deviations for Male and Female athletes on LOC and personality characteristics (OCEAN) at SDR (**400m**)

	Sex	N	Mean	Std. Deviation	t
Internal LOC	Male	15	53.73	4.096	1.151
	Female	15	50.53	9.956	
External LOC	Male	15	51.53	4.580	.944
	Female	15	49.00	9.327	
Openness	Male	15	25.67	4.030	.318
	Female	15	25.13	5.083	
Conscientiousness	Male	15	34.87	3.204	-.083
	Female	15	35.00	5.345	
Extraversion	Male	15	28.33	4.386	1.396
	Female	15	26.40	3.089	
Agreeableness	Male	15	33.93	3.955	-1.597
	Female	15	40.00	14.172	
Neuroticism	Male	15	25.67	4.030	.318
	Female	15	25.13	5.083	

P >.05

Means and Standard Deviations for Male and Female athletes on LOC and personality characteristics (OCEAN) at MDR(**1,500m**)

	SEX	N	Mean	Std. Deviation	t
INTLOC	Male	22	47.32	5.842	-1.932
	Female	25	51.24	7.780	
EXTLOC	Male	22	47.95	7.773	-1.769
	Female	25	52.04	8.013	
Openness	Male	22	30.00	4.880	.567
	Female	25	29.08	6.082	
Conscientiousness	Male	22	33.09	4.297	-1.398
	Female	25	35.16	5.647	
Extraversion	Male	22	26.27	4.872	-.067
	Female	25	26.36	4.112	
Agreeableness	Male	22	35.09	5.398	.414
	Female	25	34.48	4.709	
Neuroticism	Male	22	24.59	4.159	.519
	Female	25	23.84	5.543	

P > .05

Means and Standard Deviations for Male and Female athletes on LOC and personality characteristics (OCEAN) at MDR(**3,000m**)

	SEX	N	Mean	Std. Deviation	t
Internal LOC	Male	13	46.31	7.532	-.125
	Female	14	46.64	6.368	
External LOC	Male	13	44.85	8.601	-1.014
	Female	14	48.21	8.649	
Openness	Male	13	28.69	4.250	-2.082*
	Female	14	32.07	4.178	
Conscientiousness	Male	13	30.62	5.284	-1.670
	Female	14	34.43	6.465	
Extraversion	Male	13	23.92	2.722	-1.846
	Female	14	26.43	4.127	
Agreeableness	Male	13	30.00	7.314	-2.786*
	Female	14	36.36	4.254	
Neuroticism	Male	13	23.46	4.666	.483
	Female	14	22.50	5.585	

*t is significant at p < .05

Means and Standard Deviations for Male and Female athletes on LOC and Personality characteristics (OCEAN) at LDR(5,000m)

	SEX	N	Mean	Std. Deviation	t
Internal LOC	Male	24	46.00	10.935	1.392
	Female	9	40.44	7.764	
External LOC	Male	24	46.88	11.141	1.168
	Female	9	42.11	8.069	
Openness	Male	24	29.58	3.900	.612
	Female	9	28.67	3.640	
Conscientiousness	Male	24	32.54	5.445	1.143
	Female	9	30.11	5.419	
Extraversion	Male	24	26.17	3.319	2.065*
	Female	9	23.67	2.345	
Agreeableness	Male	24	35.38	5.948	.781
	Female	9	33.67	4.444	
Neuroticism	Male	24	24.17	4.761	.999
	Female	9	22.44	3.206	

*t is significant at $p < .05$

Means and Standard Deviations for Male and Female athletes on LOC and Personality characteristics (OCEAN) at LDR(10, 000m)

	SEX	N	Mean	Std. Deviation	t
Internal LOC	Male	23	48.09	7.329	-.388
	Female	14	49.07	7.741	
External LOC	Male	23	51.04	6.414	.450
	Female	14	49.86	9.639	
Openness	Male	23	27.35	4.618	1.382
	Female	14	25.29	4.008	
Conscientiousness	Male	23	34.96	5.717	1.039
	Female	14	32.86	6.359	
Extraversion	Male	23	26.13	3.770	.253
	Female	14	25.86	1.834	
Agreeableness	Male	23	36.39	4.698	.866
	Female	14	34.86	6.011	
Neuroticism	Male	23	23.13	5.388	.240
	Female	14	22.71	4.631	

$P > .05$

Appendix E: Descriptive Statistics of Multiple Regression Analysis of the Variables Considered in the Study

Table 1', Summary of Regression analysis of the LOC and OCEANs as predictors of BPT at 200m

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Δ	F Δ	df1	df2	Sig. F Δ
1	.551[a]	.304	.116	2.278	.304	1.619	7	26	.174

a. Predictors: (Constant), Neuroticism, Agreeableness, External LOC, openness, Internal LOC, conscientiousness, Extraversion

Table 2', ANOVA summary of Regression analysis of the LOC and OCEANs as predictors of BPT at 200m

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.808	7	8.401	1.619	.174[a]
	Residual	134.956	26	5.191		
	Total	193.765	33			

a. Predictors: (Constant), Neuroticism, Agreeableness, External LOC, Openness, Internal LOC, Conscientiousness, Extraversion
b. Dependent Variable: Performance

Table 3', Summary of Regression analysis of the demographic variables as predictors of BPT at 200m

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Δ	F Δ	df1	df2	Sig. F Δ
1	.710[a]	.504	.371	1.922	.504	3.778	7	26	.006

a. Predictors: (Constant), Income, Participation, Education, Marriage, Sex, Stay, Age

Table 4', ANOVA Summary of Regression analysis of the demographic variables as predictors of BPT at 200m

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	97.710	7	13.959	3.778	.006[a]
	Residual	96.055	26	3.694		
	Total	193.765	33			

a. Predictors: (Constant), Income, Participation, Education, Marriage, Sex, Stay, Age
b. Dependent Variable: Performance

Table 5', Multiple Regression analysis of predicting athletic performance using LOC and OCEAN at 400m

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Δ	F Δ	df1	df2	Sig. F Δ
1	.491[a]	.241	.043	5.801	.241	1.216	6	23	.334

a. Predictors: (Constant), Neuroticism, Extraversion, Internal LOC, Agreeableness, Conscientiousness, External LOC

Table 12', Regression analysis of predicting athletic performance using demographic variables at 1500m track event

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Δ	F Δ	df1	df2	Sig. F Δ
1	.453[a]	.206	.063	38.213	.206	1.442	7	39	.217

a. Predictors: (Constant), Income, Participation, Education, Sex, Marriage, Stay, Age

Table 13', ANOVA summary of Regression analysis of predicting athletic performance using demographic variables at 1500m track event

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14737.633	7	2105.376	1.442	.217[a]
	Residual	56949.218	39	1460.236		
	Total	71686.851	46			

a. Predictors: (Constant), Income, Participation, Education, Sex, Marriage, Stay, Age
b. Dependent Variable: Performance

Table 14', Regression analysis of predicting athletic performance using LOC and OCEANS at 3000m track event

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Δ	F Δ	df1	df2	Sig. F Δ
1	.644[a]	.414	.199	39.294	.414	1.921	7	19	.122

a. Predictors: (Constant), Neuroticism, Internal LOC, Extraversion, Openness, Conscientiousness, External LOC, Agreeableness

Table 15', ANOVA summary of Regression analysis of predicting athletic performance using LOC and OCEANS at 3000m track event

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20762.708	7	2966.101	1.921	.122[a]
	Residual	29336.032	19	1544.002		
	Total	50098.741	26			

a. Predictors: (Constant), Neuroticism, Internal LOC, Extraversion, Openness, Conscientiousness, External LOC, Agreeableness
b. Dependent Variable: Performance

Table 16', Regression analysis of predicting athletic performance using demographic variables at 3000m track event

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Δ	F Δ	df1	df2	Sig. F Δ
1	.637[a]	.406	.175	39.689	.406	1.760	7	18	.158

a. Predictors: (Constant), Income, Age, Education, Participation, Sex, Stay, Marriage

Table 17', ANOVA summary of Regression analysis of predicting athletic performance using demographic variables at 3000m track event

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19403.818	7	2771.974	1.760	.158[a]
	Residual	28353.721	18	1575.207		
	Total	47757.538	25			

a. Predictors: (Constant), Income, Age, Education, Participation, Sex, Stay, Marriage
b. Dependent Variable: Performance

Table 18', Regression analysis of predicting athletic performance using LOC and OCEANS at 5000m track event

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Δ	F Δ	df1	df2	Sig. F Δ
1	.425[a]	.181	-.048	50.669	.181	.789	7	25	.603

a. Predictors: (Constant), Neuroticism, Openness, Extraversion, Internal LOC, Conscientiousness, External LOC, Agreeableness

Table 19', ANOVA summary of Regression analysis of predicting athletic performance using LOC and OCEANS at 5000m track event

Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Regression	14181.445	7	2025.921	.789	.603[a]
Residual	64182.434	25	2567.297		
Total	78363.879	32			

a. Predictors: (Constant), Neuroticism, Openness, Extraversion, Internal LOC, Conscientiousness, External LOC, Agreeableness
b. Dependent Variable: Performance

Table 20', Regression analysis of predicting athletic performance using demographic variables at 5000m track event

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2Δ	F Δ	df1	df2	Sig. F Δ
1	.751[a]	.564	.442	36.977	.564	4.616	7	25	.002

a. Predictors: (Constant), Income, Education, Marriage, Participation, Age, Sex, Stay

Table 21', ANOVA summary of Regression analysis of predicting athletic performance using demographic variables at 5000m track event

Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Regression	44181.842	7	6311.692	4.616	.002[a]
Residual	34182.037	25	1367.281		
Total	78363.879	32			

a. Predictors: (Constant), Income, Education, Marriage, Participation, Age, Sex, Stay
b. Dependent Variable: Performance

Table 22', Regression analysis of predicting athletic performance using LOC and OCEANS at 10,000m track event

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2 Δ	F Δ	df1	df2	Sig. F Δ
1	.397[a]	.158	-.046	147.299	.158	.775	7	29	.613

a. Predictors: (Constant), Neuroticism, Internal LOC, Extraversion, Openness, Conscientiousness, External LOC, Agreeableness

Table 23', ANOVA summary of Regression analysis of predicting athletic performance using LOC and OCEANS at 10,000m track event

Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Regression	117691.964	7	16813.138	.775	.613[a]
Residual	629212.738	29	21696.991		
Total	746904.703	36			

a. Predictors: (Constant), Neuroticism, Internal LOC, Extraversion, Openness, Conscientiousness, External LOC, Agreeableness
b. Dependent Variable: Performance

Table 24', Regression analysis of predicting athletic performance using demographic variables at 10, 000m track event

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
					R^2Δ	F Δ	df1	df2	Sig. F Δ
1	.343[a]	.118	-.095	150.754	.118	.552	7	29	.788

a. Predictors: (Constant), Income, Stay, Marriage, Age, Participation, Sex, Education

Table 25', ANOVA summary Regression analysis of predicting athletic performance using demographic variables at 10,000m track event

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	87826.059	7	12546.580	.552	.788[a]
	Residual	659078.644	29	22726.850		
	Total	746904.703	36			

a. Predictors: (Constant), Income, Stay, Marriage, Age, Participation, Sex, Education
b. Dependent Variable: Performance

Declaration

I, the undersigned, declare that this thesis is my original work, and that all sources of materials used for this thesis have been acknowledged.

Name: Tsehaynew Getaneh

Signature: _____

A.A.U July 2010

This thesis has been submitted for examination with my approval thesis advisor.

Name: Sintayehu Tadesse (Dr.)

Signature: _____

Date: July 12/ 2010