

**AWARENESS AND PRACTICE OF DOPING ON MALE FOOTBALL  
PLAYERS; THE CASE OF HADIYA HOSANNA TOWN FOOTBALL  
CLUB; ETHIOPIA**

**MSC THESIS**

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**MARCH, 2018**

**HARAMAYA UNIVERSITY, HARAMAYA**

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Hadiya Hosanna Town Football Club; Ethiopia**

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SPORT MEDICINE**

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**March, 2018  
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## **DEDICATION**

I dedicate this thesis manuscript to my Mother Ayelech Kerebo, my beloved wife Tsige and my son Bekalu for their affection and love for their dedicated partnership in the success of my life.

## **STATEMENT OF THE AUTHOR**

First, I declare that this thesis is my genuine work and that all sources of materials used for this thesis has been duly acknowledged. This thesis has been submitted in partial fulfillment of the requirements for a Master of Education Degree at Haramaya University and is deposited at the University Library to be made available to borrowers under rules of the library. I solemnly declare that this thesis is not submitted to any other institution anywhere for the award of any academic Degree, Diploma or Certificate.

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## **BIOGRAPHICAL SKETCH**

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

|             |  |
|-------------|--|
| <b>AAF</b>  | Adverse Analytic Finding               |
| <b>AAS</b>  | Anabolic Androgenic Steroids           |
| <b>ACE</b>  | Angiotensin Converting Enzyme          |
| <b>ADO</b>  | Anti-Doping Organization               |
| <b>ADRV</b> | Anti-Doping Rule Violations            |
| <b>CH</b>   | Chronic Hormone                        |
| <b>DEA</b>  | Drug Enforcement Administration        |
| <b>EADA</b> | Ethiopian Anti-Doping Agency           |
| <b>IOC</b>  | International Olympic Committee        |
| <b>LH</b>   | Luteinizing Hormone                    |
| <b>NADO</b> | National Anti-Doping Organizations     |
| <b>NCAA</b> | National College Athletics Association |
| <b>PED</b>  | Performance-Enhancing Drug             |
| <b>PES</b>  | Performance-Enhancing Substance        |
| <b>WADA</b> | World Ant- Doping Agency               |

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## **Awareness and Practice of doping on Male Football Players; the Case of Hadiya Hosanna Town Football Club; Ethiopia**

### **ABSTRACT**

*The purposes of this study were investigated Awareness and Practice of doping on Male Football Players; the Case of Hadiya Hosanna Town Football Club; Ethiopia. The main objectives were to establish the football players level of awareness with regard to doping information disseminated by World Anti- Doping Agency (WADA), to determine their attitude towards doping and to establish the occurrence of anti-doping rule violations among the football players. Which are the players how they are known doping by the football players and the experience. The target population was Hadiya hosanna male football clubs. A sample size are 46 male subjects was selected from the (52) total population of Hadiya hosanna male football club players. A total sample size 46 players are successfully completed the questionnaires. The study was a cross sectional survey based on self-reported questionnaires. The all Data was analyzed by using SPSS computer software version 20. Generally Assessment of Awareness and Practice of doping on Male Football Players; the Case of Hadiya Hosanna Town Football Club; had a negative awareness towards doping with varying degrees. The majority of the club players indicated a positive thinking towards on assessment of doping; Hadiya hosanna male football players have slightly less awareness on doping issues and a strong unconstructive practice towards the doping. They are must need a doping education to improve their awareness and practice on doping and also to establish proper structures and policies of doping control in order to the problem of doping.*

**Key words:** *awareness, practice, doping, performance, WADA*

# 1. INTRODUCTION

In this chapter back ground of the study, statement of the problem, scope of the study, significance of the study, objective of the study was discussed in detail.

## 1. 1.Back ground of the Study

The use of performance-enhancing substances (PES) is not a new sporting phenomenon. Since 2004, the World Anti-Doping Agency is annually updated their Code and related documents that outline the official international anti-doping standards. Currently, two of the following three criteria must be met for a substance or method to be included on the prohibited list: it enhances or has the potential to enhance performance; it represents an actual or potential health risk to the athlete; and it violates the spirit of sport described in the introduction to the code.

The aims of the World Anti-Doping Programmed and the Code are to care for the athlete's fundamental right to participate in doping-free sport and thus promote health, fairness and equality for athletes worldwide, and to guarantee harmonized, coordinated and effective anti-doping programs at the international, national level relating to the detection, deterrence and prevention of doping. Doping in sport has been a focus of medical, physiology and social science research in recent years. (WADA, 2012)

According to (Gucciardi et al). whereas medical and physiology researchers focus on improving methods (e.g. blood, urine and gene tests) for the use of prohibited substances and to deter athletes from their use, social science researchers strive to better understand the psycho social factors (e.g. attitudes, environment and beliefs) that may offer targets for educational programs aimed at preventing this behavior. According to Petroczi and Aidman, in the absence of objective information on the use of performance-enhancing drugs (PED), attitudes are often used as a proxy for doping behavior, assuming that those who use banned substances show greater leniency towards doping than those who stay clear of doping. Attitudes were also clear in behavioral Models of doping that were developed to identify possible risk factors for this behavior. Consequently, researchers have identified the need to develop more sophisticated and bespoke

The athletes with attitudes that increase their likelihood of using banned substances, and the need to develop empirically tested models. Based on these previous studies, it is reasonable to agree with the statement. In addition to medical, analytic and physiological Investigation, anti-doping research should also include sociological, behavioral and ethical studies of athlete's attitudes and beliefs towards the use of banned substances in sport. According to (Vangrunderbeek and Tolleneer), Increase practice of doping among athletes therefore their health now and in future. Furthermore it is likely to the integrity of the sport in the country, which for a long time has been the source of national pride. Individual athletes who dope also risk cutting their careers short, which is a source of livelihood for their families and development income for the nation. Doping is therefore an emerging problem which must be tackled at root level, before it gets out of hand hence this study. (Laurent *et al.*, 2004)

## **1.2 Statement of the Problem**

Football is the most popular sport in the world. It can be played by young and old, boys and girls, by elite and physically or mentally challenged persons on small or wide field. Football is a famous and popularized sport loved by many people. It has attracted a large amount of faithful fans that will do their best to support it. Football is becoming one of the income sources among the sources of income in the world contributing millions of dollars to flow in world investment. In many European and Latin American countries football is becoming the main sources of their foreign currencies. The globally increasing popularity and recreational value of football is enforcing various investors to invest their resources on the area. However, to those people who are novice to the game, it is necessary from them to know what the football game is all about. It is also a game which requires skill and intelligence, the factor of speeds, power and endurance become important as one grows older. Today, football is a global sport governed by FIFA. Many countries around the world have their own leagues and football clubs that follow international rules of the sport. Even though Ethiopians were well known in athletics world especially in long run, the game of football is the foremost appreciated sport among the majority of the society. Historically football emerged in Ethiopia many years ago. History tells us Ethiopian football team was one among the team established in Africa. But the development could not be exhibits the expected improvement. According to Ethiopian football Federation, though the role and popularity of football in the country's economy is not significant it is getting the attraction of the

society and the government is giving due attention so that the country can take advantage of the game. The country is expected to produce elite players in the required quantity and quality. However, the process of developing elite player is affected by many factors. Regarding the factors has identified different main factors that influence the development of elite soccer players these are taking doping.

This is also the concern of Hadiya Hosanna Football Club because the club is right now participating in Ethiopian Super League Division. In regard with this the investigator of this study came to know that previously no one was tried to investigate about evaluation of knowledge, attitude and practice of doping on Hadiya Hosanna Football Club players. <http://www.eff.com/classicfootball/history>

Hence, this study was attempted to assess the Awareness and Practice of doping on Male Football Players. In connection with this, the study was tried to answer the following three basic research questions.

1. What is the level of awareness of Hadiya Hosanna Male Football Club Players on doping?
2. What is the practice of Hadiya Hosanna Men Football Club Players towards doping?
3. What are the factors that influence the Awareness and Practice of doping on Hadiya Hosanna Male Football Club players?

### **1.3. Significance of the Study**

The aim of this study is to evaluated, Awareness and Practice of doping on Male Hadiya hosanna Football Players but it does not mean that the outcome of this research is only restricted in Hadiya Hosanna male Football Club players; it also helps other Ethiopian football clubs. In addition to this study was intended to signify the following importance.

- It helps to motivate and encourage players to get more awareness in doping.
- It will be help for others as a research martial for depth studies on the problem undertaken.
- It helps to analyze and evaluated Awareness and Practice of doping on Male Football Players.
- Enhance investigators ability to conduct further research by providing experience.
- It will develop level of thinking towards doping in others upcoming football players in all over Ethiopian clubs.

## **1.4. Scope of the Study**

These studies were conducted in only Hadiya Hosanna male football club players at South, Nations, Nationalities and People Regional state. These studies were employed on Awareness and Practice of doping on Male Football Players which can improve the player's towards doping. The investigator was focuses only on men football players that they are who knows more exposed to take doping. Based on the above reason this study was limited in Hadiya Hosanna Men Football Players.

## **1.5. Objectives of the Study**

### **1.5.1 General Objective**

The general objectives of this study were to investigate the Awareness and Practice of doping on Male Hadiya hosanna Football Players

### **1.5.2 Specific objectives**

The specific objectives of this study were mentioned as follow.

- To investigate the level of awareness of Hadiya Hosanna men football club players on doping.
- To assess the practice of Hadiya Hosanna men football club players on doping.
- To identify factors that influence Awareness and Practice of doping on Hadiya Hosanna male football club players.

## **2. RELATED LITERATURE REVIEW**

### **2.1 Definition of Doping**

The term doping is generally used to refer to the use of certain substances or scientific techniques that could unnaturally improve the physical or mental health conditions of a contestant before and during the competition thus enhancing his or her sports performance. These substances and techniques are normally prohibited as they are considered as unfair means of winning against those who exhibit their natural potential in sports performance. WADA defines doping as the occurrence of one or more of the eight anti-doping rule violations stipulated in the (WADA code 2011).

### **2.2 History and Development of Doping**

Doping can be said to be as old as sport. In early history, warriors are known to have eaten animal brains, hearts and livers in order that they would become more intelligent, and stronger. In West Africa for example, men consumed an herb called cola nitida which was believed to improve performance (Higgins, 2006). In China, army men eat Ma Huang as a means of stimulation. Around 5BC to 3BC in Greece, athletes were put on special diets such as dried figs, wine, wet cheese, meat and mushrooms to enhance performance in sport (Murray, 2012).

By 1920, doping had become quite evident in many sporting events that restrictions became essential beside this; there were reported fatal cases of doping. The first recorded fatal case was in 1886, an English cyclist who died of an overdose of what was known as trimethyl. Since then, fatal cases continue to increase in number. In 1960, a Danish cyclist Knud Jensen and an English cyclist Tommy Simpson died of some form of drug that was meant to improve their performance. For instance, anabolic steroids were first developed in 1930s with an intention to treat starvation victims by promoting nitrogen balance, and to treat testosterone deficiency. Athletes immediately took it up as a means of enhancing their hormone levels for better performance. (Murray, 2012)

Since the 1960s, advancement in science and technology has brought many new drugs into the market, ideally with the intention of treating ailments and improving the health conditions of

patients. Unfortunately athletes, in their efforts to gain athletic advantage over colleagues have abused the drugs. For instance, anabolic steroids were first developed in 1930s with an intention to treat starvation victims by promoting nitrogen balance, and to treat testosterone deficiency. Athletes immediately took it up as a means of enhancing their hormone levels for better performance. (Schanzer, 2004)

### **2.3.1. World, African and Ethiopian Football history**

Football is the most popular sport in the world. It can be played by young and old, boys and girls, by elite and physically or mentally challenged and on small or wide field. Football is a famous and popularized sport loved by many people. It has attracted a large amount of faithful fans that will do their best to support it. People will prefer to watch the exciting football game irrespective of race, color, and nationality and or even learn playing it. Football is becoming one of the income sources among the sources of income in the world contributing millions of dollars to flow in world investment.

In many European and Latin countries football sport is becoming the main sources of their foreign currencies. The globally increasing popularity and recreational value of football sport is enforcing various investors to invest their resources on the area.

([www.fifa.com/classicfootball/history/](http://www.fifa.com/classicfootball/history/))

However, to those people who are novice to the game, it is necessary from them to know what the football game is all about. It is also a game which requires skill and intelligence, the factor of speeds, power and endurance become important as one grows older. Today, football is a global sport governed by FIFA. Many countries around the world have their own leagues and football clubs that follow international rules on the sport. Every 4 years, FIFA organizes the biggest prize in football which is the “World Cup”. This particular tournament is participated by many countries from all continents to gain football supremacy.

<http://www.fifa.com/classicfootball/history/>

### **2.3. Factors that influence doping**

The development of effective anti-doping prevention requires a better understanding of underlying factors that make athletes vulnerable to doping. Past researches have used the

epidemiological approach which requires athletes to declare or admit a behavior that would jeopardize their careers. This limits the reliability of the findings. Increased knowledge of factors that lead to doping are among WADA's top priorities as evidenced in the call for proposals on the subject in the 2009 scientific researches. (Laure, 1995)

According to (Laure, 1995) in his paper of review of studies on motives behind doping summarized the factors into two major categories; physiological aspects such as strength, endurance, recovery from injury and faster outcomes of training and psycho-sociological factors such as pressure to win, expectations of significant others, fame and money rewards and According to the studies, external pressure mainly resulted from the demands of the coach for excellent performance. (Laure, P., and Reinsberger, H.1995)

### **Basis for Doping**

Varying reasons have been fronted as the driving force that causes athletes to use PES in sports. When some athletes feel inadequately prepared for a competition they may seek for a quick fix and resort to doping (Insel & Roth, 2002). Corbin et al., (2004) observe that some athletes use drugs to take their performance beyond that which their bodies can optimally attain when properly trained. To attain optimal performance and avoid temptation to dope, Powers and Howley (2001) advise that training should start early in a competition season. Anspaugh, Hamrick and Rosato (1991) have noted that to cope with stress from the high - pressure demands of a competition, a competitor may resort to the use of illegal substances. There is therefore, need for the trainers and coaches to enlighten the athlete into seeing the event as a responsibility and situations as challenges rather than stressors. Insel and Roth (2002) suggest that athletes should equally be enlightened on the appropriate methods of coping with stress. Bucher and have identified the huge salaries paid to athletes by event organizers and sports clubs owners as a temptation that leads athletes into doping habit as a short-cut to win the huge prices. (Wuest 1999)

Equally, Ehrnborg and Rosen (2009) express the fact that athletes dope due to societal pressure, financial stress, desire to improve physical appearance, to win, perform better and look „ideal“. Similarly, Yesalis and Bahrke (2000) have cautioned that the importance attached to winning and perception towards improving physical appearance may cause athletes to resort to doping. Some

athletes are also reported to use PES if it guarantees them finances to pursue their college studies (Albrecht, Anderson and Mckeag, (1992).

Laure, Bansinger and Lercerf (2002) expound that substance abuse in sports have increased as the pharmacy drug industry has grown. They state that this has made the drugs readily available where an individual can even purchase online. Laure et al., (2003) further report that some medical practitioners offer medically assisted doping and supply elite and amateur athletes with doping agents either deliberately or through carelessness. Findings by Laure et al., (2003) also indicate that some doctors do not appear to have much knowledge of the subject of doping as 85% of the respondents admitted that they were not familiar with banned drugs or their side effects. But what was unsporting conduct is the revelation that professional team sports personnel were routinely supplying PES to athletes during training (Koch, 2002; Lubna et al., 2008).

As reported by Moran, Guerin, Kirby & Macintyre (2008) athletes are reported to be drawn to doping where the training environment encourages or even supplies the doping substance/drugs. They have noted that athletes confessed to have found it very difficult to resist the temptation to dope when some of their training peers are using PES. Desire to dope also makes an individual susceptible to doping especially if confounded by personal and situational factors, Personal factors such as low self-esteem/confidence has been seen to correlate positively with doping and intention to dope (Lubna et al., 2008; Laure & Bansinger( (2007); Koch, (2002)). concurs that situational factors may influence an athlete's" decision to dope depending on how one is related to the cheater and the need that drives one to use PES. (Jendrek, 1992)

### **Drugs and Substance use by Athletes in Sports**

Koch (2002) has reported increased use of steroids among young athletes with 5 to 11 % of high school males admitting use of anabolic and androgenic steroids by the time they finished high school. These findings agree with observations by Insel and Roth (2002) that the younger a person is when he/she starts to use the drugs the more likely the individual is to use illegal drugs and the more likely to become physically dependent on drugs. A study of 503 Jordanian College students and athletes by Lubna et al., (2008) using a self-report questionnaire studied the extent of abuse of androgenic steroids and the risk factors associated with the abuse. The findings

revealed that students start to use performance-enhancing substances before the age of 15 years. It was further revealed that Jordanian body building athletes and college athletes knowingly used PES with the intention of improving performance. (Lubna et al., 2008)

Furthermore, although androgenic substances could only be obtained through a doctor's prescription, athletes could still acquire them since coaches supplied them. About 45.6% of the non-using athletes reported that they would use PES if they were provided with free drugs. The study recommended the Jordanian Ministry of Education and the Higher Council for Youth to conduct a more comprehensive survey to measure the prevalence of anabolic-androgenic Steroid (AAS) abuse.

However the study was confined only to the body builders and did not include participants in other sports. An investigation of the attitudes of 856 Japanese physical education university students towards doping in sports by Masato, Yukitoshi and Tosihiko, (2013) indicated that they were not aware of the kind of drugs they were using. This was despite the fact that the students had attended lectures on illegal drugs an indication that they had not studied the doping control systems. Masato et al., (2013) recommended prevention of growth of the prevalence of illicit or performance enhancing drugs.

### **Performance-Enhancing Substance use Amongst College Athletes**

Studies on college athletes show that this category of sportsmen and women is not exempt from variety of PES use. A study was carried out by Schneider and Morris (1993) using a self-report questionnaire to gather doping information from 554 USA college athletes' attitude and behavior towards a mandatory drugs education programming mandatory testing. The study covered athletes in basketball, American football, baseball, track and field athletics, and hockey. Out of 197 athletes who responded, 57% of them had used PES in college and 10% noted that PES use had enhanced sports performance. The study also revealed that male athletes were more likely than female athletes to know teammates using illegal substances. However the study did not compare attitude to PES by gender or by competition experience.

An evaluation by Peters (2005) of college athletes' beliefs and social norms about ephedra onset and perceived addiction, focused on feelings towards users, how long the drug had been used,

indications of addiction, health risks involved and what prevents athletes from stopping the use of ephedra. Male athletes noted reasons for the use was to enhance performance and due to the coach and peers encouragement. Weight loss and need to increase energy levels were the reasons cited by the female athletes. Athletes also reported that they would use the drug if winning the sport was guaranteed. Routine use of the drug was due to addiction while health risks resulting from use of ephedra included „shaking“, and weird behavior. Female athletes indicated that the reasons they could not manage to stop PES use was due to appearance concerns. Both male and female athletes noted that performance enhancing and lack of education were the main barriers in quitting the habit.

Using an anonymous self- report questionnaire, Buckman, Yusko, Helene, Robert, & Pandina (2009) investigated 234 male college student athletes aged 18-26 years on whether they were involved in high- risk patterns of alcohol and other drugs use as well as establish risk behaviors associated with problematic substance use. Buckman et al., (2009) reported PES users (those who had reported past year use of broad array of PES)

Displayed more problematic alcohol-use behavior and drugs-use-related problems. They concluded that the male athletes who reported PES use also participated in substance use behaviors that could have profound negative effects on sports performance. Athletes who used alcohol in sensational seeking were reported to also use steroids. The athletes who were using PES were reported to have limited awareness of drugs they used. The study recommended more research on the use of PES.

Whitaker (2012) study of 729 athletes in team and individual sports found out that athletes competing at national level displayed a strong inclination towards doping than those competing at lower and at international levels. Further, Whitaker (2012) has observed that athletes were willing to use performance enhancers if and when they experience declined performance, if they were to suffer injury before a major competition, if funding for their education was threatened and, if they suspected that others were likely to be using illegal substances. The study recommended the need to support athletes who suffer injuries as well as educate them. Whitaker (2012) also reports that significant others especially exerted great influence over athlete behavior towards banned substances in that some reported they would dope if the coach (87%) and fellow athletes (88%), doctor (71%) and, family (71%) approved of the behavior. (Whitaker 2012)

The study recognized the need for the coaches to be educated in order to understand the extent to which their behavior and perceptions can influence athlete's behavior on matters relating to banned substances. Whitaker (2012) also reported that (37%) athletes suspected their colleague would use PES if they would not be detected and if they were sure they would win in their sports but the number of athletes went down to 9% if the drug was to lead to death after five years. About 41% also noted that they suspected others to be using banned substances to enhance performance. Whitaker, (2012) concluded that prevalence estimates of doping can be used to target athletes perception change through education as it has been revealed that athletes who suspect others to be doping are more likely to engage in the behavior. (Whitaker 2012)

#### **2.4. Doping Control Practices in Ethiopia**

The ratification of the 2005 UNESCO Convention on 17th of August 2009 meant that under the new constitution, the convention stipulations become part of law. It provides legal framework for regulating doping in Ethiopia. This implies Ethiopian government must oversee the implementation of these regulations among sports organs in the country. The National Olympic Committee of (NOCE) plays a role in doping control. The committee is affiliated to the IOC and by law, expected to abide by its rules and regulations.

IOC, therefore, provides the guidelines with regard to implementation of doping regulations. The Ethiopian Anti-Doping Agency operates under the umbrella of NOCE. This restricts its mandate and operation to members of NOCE. However which is affiliated to IAAF and WADA is by law expected to adopt the anti-doping regulations from these International bodies (WADA 2011). The 800m runner had qualified to participate in the 2008 Olympics but was removed from the list after she tested positive for Anabolic steroids in July 2008. (WADA 2011)

AE in liaison with IAAF constituted a committee to give the athlete a hearing. After the hearing, AE suspended the athlete for two years and communicated the same to IAAF as per the rules (IAAF, 2011).

There is also evidence that though AE has structures of handling doping cases, it seems to lack adequate educational programs on banned substances and athletes' rights and responsibilities. The case of Susan Chepkemei is an example. Susan tested positive for Sulbutamol, a drug which

was used to treat her for a chest infection at the hospital. She was suspended for two years and she did not appeal. In this case Susan should have avoided suspension by seeking Therapeutic Use Exemption (TUE) or even launched an appeal of the case if she had adequate knowledge of doping regulations Use of Natural Substances to Enhance Performance. (IAAF, 2011)

Otieno *et al.*, (2009) conducted a cross sectional survey to determine the factors associated with drug use and abuse among secondary school students in Kisumu region. The study sought to establish particularly the effect of age, gender, and peer-influence on drug use. Findings indicated that the most common reason for drug use was enjoyment (47.3%), followed by experimentation (38.2%), then influence from friends (18.7%). The most commonly abused drugs were alcohol (57.9%), tobacco (34.7%), cannabis (18.3%) and khat (23.1%).

The explored use of drugs by youth as a possible way of coping with frustrations that result from inability to meet set goals. The authors concluded that socio-economic changes in developing countries have led to intensified dilemmas among youth, which consequently has resulted in the use of drugs. Two other studies illustrated the same precedence. Mugisha Arinaitwe & Hagambe (2003), and Otieno *et al.*, (2009) both indicated low socio economic status, adolescent age 16-18, prevalence in boys and being out of school as contributing factors to drug use. (Murray, 2012)

The authors recommended that these factors be considered when developing health education programs for secondary schools some traditional African communities have history of use of natural substances to enhance physical performance. In West Africa for example, men eat a herb called cola nitida which was believed to enhance performance (Murray, 2012).

In central Africa states, warriors eat animal brain, heart and livers in order to become swifter, stronger and more intelligent. Similar history has been noted elsewhere in the world. In Peru and Mexico, long distance runners eat cola leafs which were believed to enhance endurance during competitions. Two studies (Demeo, 2007 & Hoberman, 1992) have indicated use of natural substances such as coca leafs, opium, kola nuts and theobromine in Western countries. In Africa, there have been limited studies on use of natural substances to enhance sports performance. However, investigations done on effects of naturally occurring plants such as miraa, that are consumed for recreational or health purposes have revealed that it contains performance enhancing substances that are banned by WADA ([www.ephedra.nu](http://www.ephedra.nu)).

According to Mottram (2011) established that ephedrine occurs naturally as 'genus ephedra', and cathine is derived from plant 'khat', A recent incident of a Kenyan boxer who tested positive for cathine after allegedly chewing Mira is a good example of the potential effects of consuming natural substances. Most natural substances consumed by Kenyans are directly sourced from plant leaves or roots which are either boiled or crushed and consumed directly. No scientific investigations are done on the substances prior consumption and neither is the doses regulated. This shows the magnitude of risk involved with use of natural substances with regard to doping control practices. (Mottram 2011)

## **2.5. Commonly Abused Substances**

### **2.5.1. Anabolic Steroids**

These fall under the 1<sup>st</sup> category of WADA prohibited substance list. Anabolic steroids are chemically manufactured drugs. They can be said to be the man-made version of testosterone, the male sex hormone (Schanzer, 2004). . Examples include Ambrose Bitok who failed a drug test in Linz in August 2003 after testing positive for substance norandro sterone and Elizabeth Muthoka who was selected to compete for Kenya in the 2008 Summer Olympics. She did not compete after she tested positive for the substance nandrolone and was given two-year ban. Another athlete, Joseph Cheromei, who was selected to compete in the 2000 Summer Olympics, was suspended after testing positive for nandrolone. (Mottram, D., 2011)

The above incidences are evidences of abuse of Anabolic steroids among athletes, and thus the need to investigate the extent to which the drug may be used and how much athletes are aware about their effects on health as well as the potential of the drugs to jeopardize their careers. This class of doping substance also includes all steroids that possess anabolic properties, meaning that they cause an extensive increase in muscular mass. (Schanzer, W.2004)

### **2.5.2. Peptides Hormones**

This are categorized as 2<sup>nd</sup> of the WADA prohibited list of drugs. They include the use of peptide hormones as well as other growth factors and related substances Examples include erythropoietin (EPO), chorionic, hormone (CH) Luteinizing Hormone (LH), Insulin, Corticotrophins and Human Growth Hormone (HGH). The most commonly abused forms are EPO and HGH. EPO

involves the administration of synthetic erythropoietin. Synthetic EPO was developed as an anti-anemic drug to treat patients with cancer, AIDS, or chronic renal failure. (Guadard, 2003)

Athletes administer it by injection for a continuous period prior the competition. Its effects are similar to those attained in training in high altitude where hypoxia is common. Human Growth Hormone (HGH) is a naturally occurring peptide hormone secreted in the pituitary gland. The hormone in the body is rather heterogeneous. Although the hormone may be produced by the body naturally, a recombinant HGH (RHGH) has been developed through genetic engineering and successfully used in patients with HGH deficiency. The use of HGH in sport is not only based on its anabolic properties but also on its effects on carbohydrate and fat metabolism (Saugy *et al.*, 2006).

### **2.5.3. Blood Doping**

This falls under the category of prohibited methods in the WADA prohibited list. According to), blood doping refers to the process of oxygen enhancement; where an individual's hemoglobin concentration is artificially increased above normally occurring levels in order to improve the athlete's endurance. Blood transfusion is another form of doping classified under prohibited methods. It refers to the transfer of blood into a person's vein. A number of studies have indicated that blood transfusion can increase an individual's hemoglobin concentration above normal levels. (Vernables, 2008)

According to (Guardad *et al*, 2003) the increase in hemoglobin levels correlates to an increase in maximum oxygen uptake because the extra hemoglobin can transport extra oxygen. This heightens the athletes' endurance thereby improving performance describes blood doping as the use of artificial oxygen carriers. While hemoglobin is the natural oxygen carrier in the body, artificial carriers are manufactured substances designed to aid in the transport of oxygen throughout the body. Blood transfusion is another form of doping classified under prohibited methods. It refers to the transfer of blood into a person's vein. (Guardad *et al*, 2003)

### **2.5.4. Gene Doping**

Gene doping refers to the manipulation of genetic elements to improve muscle performance. It involves the application of gene therapy techniques in genetic enhancement of human

performance. Gene transfer into muscles is known to counteract age related muscle atrophy. A recent study conducted by (Wells in 2008) examined the effects of gene therapy on performance. According to (Mottram, D., 2011) study concluded that genetic manipulation produced very impressive results in animal models but it has only shown significant beneficial effects in a limited number of human trials. This is similar to the effects of training in muscle hypertrophy, thus there is a potential that increased expression of certain genes in skeletal muscles may increase muscle strength in athletes. The study concluded that genetic manipulation produced very impressive results in animal models but it has only shown significant beneficial effects in a limited number of human trials. (Barton, 1998)

## **2.5.5. Stimulants**

### **2.5.5.1. What are stimulants?**

Stimulants are drugs that make you feel more alert. Caffeine, found in tea, coffee and chocolate, is one example. Many plants contain naturally occurring stimulants (probably to deter invading insects) that in humans make the brain a Stimulants are drugs that make you feel more alert. Caffeine, found in tea, coffee and chocolate, is one example. Many plants contain naturally occurring stimulants (probably to deter invading insects) that in humans make the brain and body more active. Many stimulants, such as nicotine and cocaine, are harmful and addictive. Amphetamine, which was first made a century ago, is another well-known stimulant body more active. Many stimulants, such as nicotine and cocaine, are harmful and addictive. Amphetamine, which was first made a century ago, is another well-known stimulant. (National Institute on Drug Abuse. 2014)

### **2.5.5.2. Side Effects**

According to, (National Institute on Drug Abuse. 2014) in a dose-dependent manner, these effects can be amplified to potentially lethal levels, leading to a potential stimulant overdose. Toxic levels of stimulant excitation can result in heart attack, stroke, seizures, or even fatal overheating.

While every stimulant will be slightly different in its specific effects, all stimulants share a set of side effects that can wreak havoc on a user's system when abused

- Increased heart rate.
- Heightened blood pressure.
- Very high body temperature.
- Muscle shakes or tremors.
- Agitation.

All of these effects are common to stimulant abuse. No matter how you cut it, stimulant abuse, even in the short term, can have disastrous consequences for the user, resulting in hyperthermia, cardiovascular abnormalities, and sudden death. When a person abuses stimulants over a long period of time, however, they compound their risks of experiencing a number of other devastating physical and mental health issues. (National Institute on Drug Abuse. 2014)

### **Short-Term Effects of Stimulants**

Stimulants are generally abused for their euphoric, energetic effects. In the short term, stimulant effects can be very pleasurable and may include 2, 5:

- ❖ Intense feelings of happiness.
- ❖ Increased energy/sociability and self-esteem.
- ❖ Improved attention.
- ❖ Increased sexual desire and performance.
- ❖ Opened breathing passages/easier breathing.
- ❖ Suppressed appetite.

While these effects may seem desirable, they are invariably accompanied by a range of risks to the user's health

## **Long-Term Effects of Abusing Stimulants**

The effects of stimulant use can extend well beyond the short-term high. According to (National Institute on Drug Abuse. 2014) many users disregard the future in favor of a blissful short-term high, but the potential harm associated with ongoing use should not be ignored.

### **2.5.5.3. Psychological Side Effects**

The psychological effects are also troubling for many long-term users <sup>2</sup>:

- ❖ Hallucinations.
- ❖ Delusions.
- ❖ Persistent anxiety.
- ❖ Paranoia.
- ❖ Depression.

Long-term physical effects of stimulant abuse include 2:

- Extreme weight loss.
- Reduced sexual functioning.
- Gastrointestinal problems.
- Muscle deterioration.
- Chronic exhaustion.
- Cardiovascular damage.
- Breathing problems.
- Headaches.
- Cerebral hemorrhage.
- Stroke.

➤ Seizure.

It is important to recognize the negative consequences of stimulant abuse, as they underscore the ugly truth behind the euphoric stimulant high. (National Institute on Drug Abuse. 2014)

Stimulants belong to group A of the IOC list of prohibited classes of drugs in competitive sport. The term stimulant is used to refer to a cluster of compounds whose effect is to influence the central nervous system. Such influence is meant to cause a reduced tiredness, increased attention and disposition for competition as well as aggressiveness. Such substances include amphetamine, cocaine, metamphentermine, benzphetamine among others. (National Institute on Drug Abuse. 2014)

## **2.2.6. Local stimulants in Ethiopia**

### **2.2.6.1. Khat**

Khat is a popular stimulant plant widely grown and used in Ethiopia and neighboring countries. It is commonly known as chat in Amharic. It is grown, distributed and consumed in Ethiopia without regulatory oversight. The use of Khat has deep-rooted cultural and social tradition in some Ethiopian communities, particularly among the Muslim population. Ethiopia, besides being a major khat producer, is believed to be the pioneer of its consumption. The plant is typically consumed by chewing the leaves and swallowing the juicy product. While the reasons for the use of khat can vary from individual to individual, the plant is generally recognized as a stimulant of the brain, with abuse potentials, and a number of other unwanted effects. (Worku Abebe, 2014)

From published research results and general observations, it is clear that the use of khat in Ethiopia has become a growing problem in recent years, especially among the younger generation, including high school and college students. Three major factors are believed to contribute to this observation: (1) absence of regulation of the production, distribution and use of khat, despite its well-documented harmful effects; (2) lack of sufficient awareness of consumers about the harmful effects khat; and (3) push by the TPLF government and its beneficiary collaborators (more notably Dr. Ezekiel Gebissa of Kettering University, who wrote a

promotional book on khat some years ago), for increased production and consumption of khat for economic and political self-interest. (Worku Abebe, 2014)

Even more alarming is that, beyond the traditionally recognized places, the availability and use of khat have spread out of Ethiopia to other parts of the world due to the recent explosion of migration of young people from Ethiopia and neighboring countries and improved transport systems for khat smuggling. Accordingly, the drug is now more commonly used in North America, Europe and Australia, where it is largely considered illegal. Khat being among the top five exports of Ethiopia, the TPLF government has become a beneficiary of this illegal activity through population displacement. From most of the evidence reviewed thus far, it appears that the policy of the government and its collaborators is a major factor for the problem khat in Ethiopia and elsewhere around the world. (Worku Abebe, 2014)

The differences in drugs laws implemented for khat regulation in Ethiopia and in most other parts of the world have created a situation that encourages the illegal trafficking of khat from Ethiopia to prohibited countries in Europe and North America. While engagement in such an illegal practice has become profitable for some, it has caused disastrous outcomes for many others, such as serving jail times, paying huge fines and facing deportations. Even worse, for some khat-related crimes, associations have been implicated with international terrorist organizations. (Worku Abebe, 2014)

Khat brain stimulating effects come mainly from its constituent compound known as cathinone, which resembles amphetamine. Classified as Schedule I drug, cathinone is an illicit substance in the US, and other countries. Shortly after chewing, khat induces euphoria, wakefulness, mydriasis and increased energy, primarily as a consequence its action in the brain. With continued use, it also causes reduced appetite, increased body temperature, constipation, paranoia, sleeplessness and aggressiveness. Prolonged consumption further leads to a range of symptoms that include depression, anxiety, irritability, anger, sleep disturbance, fatigue, suspiciousness, hallucinations, panic attacks, and suicidal thoughts. With cessation of consumption after chronic use, like most other psychotropic drugs, khat causes withdrawal effects which are at least associated with depression, sadness, lethargy, reduced social

interactions and vivid unpleasant dreams. The appearance of these symptoms is a major factor for persistent consumption of khat by chronic consumers.

Of additional note is that the consumption of khat in Ethiopia is usually associated with the concomitant use of other mind-altering substances, such as alcohol and tobacco smoke. Several research studies have reported a link between the use of khat and sexually transmitted diseases, including HIV and this are suggested to be more directly linked to the consumption of alcohol that usually follows khat sessions. (Worku Abebe, 2014)

#### **2.2.6.2. Cannabis**

In most urban centers of Ethiopia, cannabis is more commonly known as hashish, but this actually refers to marijuana. In some rural or traditional communities, it is also referred to as by the Amargna/Geez name, etse-faris, a name which is sometimes confused with that of *Datura stramonium* (Jimson weed). Marijuana is a “preparation” made from the dried leaves, twigs and flower parts of the cannabis plant; it is consumed by inhalation as smoke. Similar to the classification in most other countries with functional regulatory systems in place, marijuana/hashish/cannabis is also considered illegal in Ethiopia. Accordingly, the Ethiopian federal drug law lists penalties for illegal production, use or sell/supply of cannabis. However, despite this law, the possession or use of cannabis in present-day Ethiopia seems to be prevalent and widely socially accepted.

The cannabis plant in Ethiopia is reported to grow in many places across a wide range of geography. More notably, it is cultivated in Alemaya, Shebendia, Shashemene and Debre Berehan areas. Among all the places, of special interest is the cultivation of cannabis in the Shashemene area which was offered by Emperor Haile Selassie in 1966 to Rasteferians of Jamaican origin. Since then, this area has been recognized for its ties to Rasteferianism and for the production and quality of its cannabis. In most of these places, however, cannabis is usually cultivated in inaccessible locations where enforcement of laws is difficult to achieve. Such places include those which had never traditionally cultivated the plant. There is also evidence that some cannabis is smuggled into Ethiopia from West Africa by traffickers.

Although most of the cannabis production in Ethiopia is meant for local use, some of it is trafficked to outside (mainly to UK) by air, the vast majority being sent via the Ethiopian postal

service. Different reports indicate that, cannabis, in the form of marijuana, is used by a wide range of the Ethiopian population for different purposes. The UN Office on Drugs and Crime has reported a prevalence of 2.6% cannabis use for adult Ethiopians for the year 2008.

Other studies also have documented that the recreational use of cannabis by the Ethiopian youth, including students, has dramatically increased in recent years, particularly in urban communities. For a small proportion of the rural population, cannabis is useful as a medicinal and recreational substance. Still for some others, it is a source of extra income because of the increased demands both in the cities and from traffickers operating in the rural areas. In view of the documented ritual use of cannabis by the Coptic Church of Alexandria, it is also believed that elements of this tradition still exist in the Ethiopian Orthodox Tewahedo Church. (Worku Abebe, 2014)

What does cannabis do to the human brain and behavior? Pharmacologically, many authorities classify cannabis as a hallucinogenic substance with mixed effects. The major compound (active ingredient) that enables cannabis to produce effects in the brain is delta-9-tetrahydrocannabinol (THC). The immediate effects include euphoria, a sense of relaxation, mood changes, increased appetite, reduced thinking capacity, suspicion and paranoia, and impairment of motion coordination. With higher doses, cannabis may also cause hallucinations, delusions, agitation and feeling of panic, especially in venerable individuals.

Regular use of cannabis for a prolonged period leads to a lack of motivation and poor performance in school as well as in work place. Individuals with problems of cannabis use usually look tired with no desire to work on a regular basis; they are also less concerned about their appearance or even life. In users with psychosis susceptibility, high doses of cannabis for a long duration may trigger psychotic episodes. Abstinence from cannabis can cause a range of symptoms including sleep disturbances, insomnia, irritability, restlessness, excessive sweating, nausea, diarrhea and lack of appetite, among several others. For most consumers, these unpleasant withdrawal experiences can be a cause for continued use of the substance, whatever the cost may be. (Worku A, 2014)

#### **2.5.6. Beta -2 Agonists**

### **2.5.6.1. How do beta agonists work?**

Beta antagonists are growth promontory used in cattle and swine production. When animals consume feed, they partition the extra energy into fat cells. When cattle and swine are given beta antagonist, they partition the extra energy into muscle instead of fat. Many swine and cattle producers feed their animal's beta antagonist in the last few weeks before harvest. This is because animals are less efficient at turning energy into muscle as they get older. Beta antagonist help animals deposit more lean muscle without needing more feed. Beta agonists are also approved for use in turkey production, but they are not as widely used. The beta agonists used in livestock production are ractopamine and zilpaterol hydro chloride

This is a group of substances that may be used for medicinal purposes but have the potential to enhance performance in sport. Therefore its use is regulated. Sulbutamol, for example, is allowed up to a maximum of 1600 micro-grams over 24 hours which is in accordance with manufacturer's recommendations. The presence of Sulbutamol in urine in excess of 1000ng/mg is presumed not to be intended for therapeutic use therefore prohibited (WADA, 2011). This research was intended to establish this level of awareness and to recommend possible remedy where required. (WADA, 2011)

## **2.6. Studies on Knowledge of Doping**

Many studies have been carried out in the world to establish the level of knowledge and general awareness of doping substances, methods and procedures among athletes in different sports. The studies focus on specific areas such as knowledge of banned substances, drug testing methods and procedures and rights and duties of athletes with regard to doping control regulations. A study conducted by (Albrechet *al.*, 1992) described general awareness of drug testing procedures among college athletes. The study was conducted in USA among college 33 athletes. (Albrechet *al.*, 1992)

## **2.7. Studies on Prevalence of Doping**

This constitutes the third objective of the research, to establish possible practice of doping among athletes. A number of studies have been reviewed on this subject. A major study was conducted in USA by Wroble et al., (2002) on prevalence, knowledge and attitude of Anabolic steroids among per-adolescent athletes. The survey was conducted in 34 states in USA and funded by National Youth Sports Research and Development Center. A 2- item questionnaire was used to assess their knowledge of effects of steroids and prevalence of the same. From the results, less than 1% of the respondents reported current use of Anabolic steroids with higher percentage in males than females. Reasons for use included to improve performance, personal appearance and peer pressure. Sixty six percent indicated it would improve their performance. Ninety percent indicated they did not need to use steroids to be successful in sport. Most common source of information was indicated as books and magazines. (Wroble et al., 2002)

The study established that the potential side effects of doping and drug use are not satisfactorily familiar to most users thus recommended education of athletes on the matter to be a top priority. According to (Scarpino, V. 1990) another study conducted by explored the use of ‘Over the Counter Drugs by athletes. The study was conducted in UK among elite and non-elite athletes. Focus was on use of over the counter drugs especially those that are used for treatment of respiratory tract infections that contain banned substances. Results showed that only 3% of athletes stated they used over the counter drugs to enhance performance and less than half of them believed they were effective. Twenty three percent (23%) of the athletes believed that over the counter drugs should be banned. Elite athletes were more likely to have knowledge of over the counter banned substances than non-elite athletes. (Chester, 2003)

## **2.8. Studies on Attitude of Athletes towards Doping**

Many sports organizations endeavor to obtain a reliable view of the spread of doping in their sport. Establishing prevalence of doping among the athletes could be one way of determining the spread of doping in a sport. However owing to the sensitivity of the matter and the legal implication on their careers, many athletes are reluctant to report about the actual situation In

the absence of objective information about actual prevalence of doping, focus is now shifting on doping attitude which is used as proxy to doping behavior (Donavan et al., 2002).

Many studies have been carried out in the world to establish the level of knowledge and general awareness of doping substances, methods and procedures among athletes in different sports. The studies focus on specific areas such as knowledge of banned substances, drug testing methods and procedures and rights and duties of athletes with regard to doping control regulations. ( Binsinger C.2004)

A study conducted by Albrechet *al.*, 1992 described general awareness of drug testing procedures among college athletes. The study was conducted in USA among college athletes. The focus of the study was to examine the extent to which college athletes are informed of drug testing procedures employed by their institutions. The sample comprised 2282 athletes from a range of sports, including football, tennis and swimming. Results indicated that 36% of the athletes enrolled in the institutions where testing procedures were in effect were ignorant of testing taking place. Of all of them, 70% were unable to identify the testing protocol while a small percentage was aware they were susceptible to testing. (Albrechet *al.*, 1992)

## **2.9. Studies on practice of Doping**

A number of studies have been reviewed on this subject. A major study was conducted in USA by Wobble et al., 2002 on prevalence, knowledge and attitude of anabolic steroids among pre-adolescent athletes. This constitutes the third objective of the research, to establish possible practice of doping among Kenyan elite athletes. A number of studies have been reviewed on this subject. A major study was conducted in USA by Wroble et al., 2002 on prevalence, knowledge and attitude of Anabolic steroids among pre-adolescent athletes. The survey was conducted in 34 states in USA and funded by National Youth Sports Research and Development Center. A 2-item questionnaire was used to assess their knowledge of effects of steroids and prevalence of the same. From the results, less than 1% of the respondents reported current use of Anabolic steroids with higher percentage in males than females. Reasons for use included to improve performance, personal appearance and peer pressure. Sixty six percent indicated it would improve their performance. Ninety percent indicated they did not need to use steroids to be successful in sport. Most common source of information was indicated as books and magazines.

The aim of the study was to determine the rate of doping and performance enhancing drug use in Sivasi, Turkey, and to analyze the main reasons for their use. A cross sectional study based on a self-reported questionnaire was carried out. The subjects filled questionnaires describing population in terms of demographics, sports practice, doping in sports, and other substance abuse. Number of respondents was 883 of which 433 were athletes 450 were healthy non-athletes. Mean age of volunteers was 21 years. Male and female ratios were 78.2% to 21.8% respectively. (Levent et *al.*, 2005)

From the findings the research concluded that doping and drug use was high among athletes (74.5%) than non-athletes (18%). On the type of substance used anabolic steroids was highest at 60.5%, cretin 14%, Na Bicarbonate 11.3% and erythropoietin 5.4%. From the study also it emerged that the main reasons for use ranged from bettering the body condition (47.9%) to solve weight gaining or loosing (11.3%). The study established that the potential side effects of doping and drug use are not satisfactorily familiar to most users thus recommended education of athletes on the matter to be a top priority.

Another study conducted by Chester, Reilly & Motram, 2003 explored the use of 'Over the Counter' Drugs by athletes. The study was conducted in UK among elite and non-elite athletes. Focus was on use of over the counter drugs especially those that are used for treatment of respiratory tract infections that contain banned substances. Results showed that only 3% of athletes stated they used over the counter drugs to enhance performance and less than half of them believed they were effective. Twenty three percent (23%) of the athletes believed that over the counter drugs should be banned. Elite athletes were more likely to have knowledge of over the counter banned substances than non-elite athletes.

Though the above studies may provide an insight into to attitude and practice of doping among elite athletes, the context of the study may limit the generalization of the results to similar countries. Most studies were conducted in developed states (USA, UK, Australia, Italy, Turkey, Finland and France) which may not be comparable to Kenya in terms of athletes' exposure, doping education programs and accessibility to quality training facilities. Besides, some studies were conducted among college athletes and non-athletes. This may not reflect the situation with

elite athletes. The current study aimed to establish Kenya elite runner's knowledge, attitude and practice of doping. (Chester, et, al, 2003)

## **2.10. Summary of the Literature Review**

Generally, past studies have revealed a rising trend in the practice of doping in sports across different regions of the world and in a variety of sporting activities. The main reasons for the practice as it emerged from the findings of majority of the studies was the availability of new effective drugs and methods that can beat the test, the growing professionalism in sport and the influence of social and political environment. A few studies indicated that dopers had previous experience with one or more of similar drugs like alcohol and bhang. Studies on college athletes revealed strong influence of social environment and pre-exposure to other forms of drugs prior to joining college or playing sport.

Few studies indicated lack of sufficient knowledge as a cause for doping. Most studies confirmed a negative attitude of athletes towards. The studies also confirmed a low prevalence of doping among different groups considered for review. A survey of doping prevalence in Ethiopia revealed occurrence of a number of cases both at national and international levels. The survey further revealed scanty doping control structures among sports organization, mainly relying on guidelines from international federation. (Levent et al, 2005)

However no studies were found on doping attitude and knowledge among Ethiopian football players. The findings of the researches are more grounded and relevant to the locations of the study and may not in many aspects reflect on the situation in Hadiya Hosanna male Football Club players. This study is therefore, is an effort to establish similar information on the practice of doping in Hadiya Hosanna male Football Club players. It is an effort to join the rest of the world in the fight against doping by providing vital information that can be used as basis of developing anti-doping program. A recent report presented to WADA on review of literature on doping knowledge, attitude and practice concluded that methodologies used to examine athletes and their support networks were weak. (Backhouse et al, 2007)

### **3. MATERIALS AND METHODS**

#### **3.1. Description of the Study Area**

The study was conducted at selected men Hadiya Hosanna Football club players in evaluation of knowledge, attitude and practices of doping. Hosanna town administration is the capital of Hadiya zone as well as Limo woreda. It is one of the 22 reform towns of southern region. It is one of the four big towns of the region which have second grade status (like Dilla, Woliya, and ariba-minch). As far as the structural arrangement of the town, it is divided into 3 sub cities, 8 kebeles and 160 localities. According to Central Statistical Agency report, the total area of the town is 100 km<sup>2</sup> (10,200 hectares) Regarding to location, the astronomical location of the towns found in geographic coordinate between 07°33'N latitude and 35°52'E longitudes respectively.

In its relative location Hosanna town is bounded in four peasant associations. The dominant types of economic activities that are practiced by the people include commerce, urban agriculture and civil servant. Peoples are love highly football and a lot of clubs are there like shone, soro, shashogo, misha and Lemo football club is now participate in Ethiopian 1st division league which is (national league).

Hadiya Hosanna Football Club was founded in 2005 at the level of 3rd Ethiopian football division (national league), then after two years later competition in 2007 e.c the club was joined Ethiopian premier league. After one year the league competition the club is fall down in Ethiopian super league level. The club is finical supported by peoples as well as supported by hadiya zone government. (Wikipedia)

#### **3.3 Source of Data**

The study were used both primary and secondary sources of data. The primary data sources for the studies were Hadiya Hosanna male Football Club player's representative. The secondary data will be obtained from documents, journals, books and articles related with selected title.

### 3.4. Study Population

The total population of this study was fifty two (52) Hadiya Hosanna male Football Club players. The population includes both main and youth team players i.e., 32 players from main team and 20 players from youth team players. All of the Hadiya Hosanna male Football Club players are registered in Ethiopian football federation according to their rule and regulation.

### 3.4. Research Design

The aims of this study were to investigate the impact of doping in Hadiya Hosanna male football players. It is also goes to suggest some possible means that can be used to increase the good doping knowledge in Hadiya Hosanna football club players.

For achieving the research objectives the researcher used cross-sectional study involving both qualitative and quantitative data to assess evolution of knowledge, attitude and practice of doping that affect the development of soccer footballer in the study area. Cross-sectional surveys were selected as research design because of the opportunity it provides the researcher to collect data from different sources.

### 3.5. Sample and Sampling Techniques

The random sampling techniques were used to select from fifty two hadiya hosanna male football club players forty six (46) participants from the total populations in the study area. The sample sizes were selected from youth and main hadiya hosanna male football club players.

$$n = \frac{N}{1 + N(e^2)}$$

Where: n = sample

N = 52 total population

e = is assumed to be tolerable error 0.05

At confidence level of 95%

Source: Yamane 1967 - Sample size determination

### **3.6. Methods of Data Collection**

During data collection the researchers were used a questionnaire to collect the relevant information from the study subjects or selected Hadiya hosanna male football club players .The questionnaires were collected by the researcher directly from the participants on the study.

### **3.7. Methods of data gathering tools**

In order to collect the data from the samples of the target populations, the researcher were used questionnaires to employ as instrument respectively.

### **3.8. Method of Data Analysis and Interpretation**

The data collected through questionnaire and the data was coded and accurately entered into a computer program (SPSS version 20) the level of significance were 0.05%.The data were then analyzed using the program. Data analysis was conducted using descriptive statistics methods such as percentage, mean value, frequency.

### **3.9. Inclusion and Exclusion Criteria**

Participants were recruited according to the following inclusion criteria: Subjects from only male sexes aged group from 18-35. The selected players freely willing were participating in the study. Those players willing to sign an informed consent before participating included in this study. Screening was also the researcher conducted by using the random lottery methods.

### **3.10. Data Quality Control**

The investigator was to inform to all some selected Hadiya hosanna male football club's players about the study. To assure the quality of the study uses pretest study to check the questioner of the research. Furthermore the data collected from the respondent was making sure and the data was after collected immediately coded and the privacy of was highly protected.

### **3.11. Research Ethics**

These studies were going in line with ethical issues. The privacy of the participants was protected. Generally this research was conducted as pre rule, politics and research ethics of Haramaya University. The protocols were approved by the university guidelines. The participants were informed earlier and giving a signed agreement to participate in this study with a written letter. This research were approved by Institutional Research Ethics Review Committee (IRERC) of the Haramaya University to make sure it is not resulting to any risk or harm to the participants of this study.

## 4. RESULTS AND DISCUSSIONS

### 4.1. Overview

This chapter deals with the analysis of data collected from the sample under study. The purpose of this study was to investigate the Awareness and Practice of doping on Male Football Players Under this, three variables such as doping knowledge, doping attitude and practice in doping as well as the results of those variables are briefly discussed as follows.

### 4.2. Demographic Information of Participants

| Distribution by Age | Frequency | Percent (%) |
|---------------------|-----------|-------------|
| <20                 | 15        | 36.2 %      |
| 21- 25              | 18        | 41.1%       |
| 26-30               | 11        | 19.(%       |
| 31-35               | 2         | 4.%         |
| >36 Years           | 0         | .0%         |

**Table 4.1:** *the table shows Hadiya hosanna male football club players age distribution*

The above table 4.1: demographic information shows from the forty six 46 Hadiya hosanna male football players age and experience which are participated in the study giving a response rate of 100%. Majority (77.3%) of the respondents were under 25 years. Only 3 athletes were over 30 years. Twenty one percent (21.7%) were between twenty six year (26) and thrifty five year (35) years. Majority of eighty (80%) of the players had an a few experience of 1 to 3 years.



**Table 2:** The table shows Hadiya Hosanna male Football Players response in evaluation of knowledge towards doping.

According to table findings, majority of the Hadiya hosanna football club players was responded the asked question as follows. Do you agree that the Following Substances Can Have Doping/Performance- Enhancing Effects in Sport like Amino acids (AA), 19.6% subjects said strongly disagree, 80.4% also said disagree. The findings were indicated the majority of subjects are negative. Item two also about Anabolic (masculine), 34.9% subjects said strongly disagree and also, 65.2% subjects was said disagree and the mean value is 1.65. The findings were indicated the majority of subjects are negative. In Item three about Diuretics, 30.4% subjects was said strongly disagree, 69.6% subjects were said disagree, the mean value is 1.70.

And in item four questions Energy drinks, 41.3% subject were said strongly disagree, 58.7% subjects were also disagreeing, the mean value is 1.59. The findings were indicated the majority of subjects are negative. In item five, Growth hormone, 58.7% subject were said strongly disagree, 41.3% also said disagree, the mean value is 1.41. The findings were indicated the majority of subjects are negative. In item six, Narcotics, 71.7% subjects were said strongly disagree, and also 28.3% said disagree the mean value is 1.28. . The findings were indicated the majority of subjects are negative. In item seven, Stimulants, 79.3% subjects were said strongly disagree, 26.1% also said disagree, the mean is 1.76. The findings were indicated the majority of subjects are negative. In item eight, Vitamins, 13.0% subjects were said strongly disagree, 87.0% also disagree, the mean value is 1.26. The findings were indicated the majority of subjects are negative.

Generally the respondents said or give response on the above asked questions as follows to be found with percentage ; (42.9 %) strongly disagree with statements that indicate the evaluation of knowledge towards doping. fifty seven (.57.0%) was disagreed with the statements while. 0% Neutral, 0 % agreed, agreed and 0 % strongly agreed the total mean value is 12.56 with the statements. The most Hadiya hosanna male football club players were said strongly disagrees and disagrees.

These patterns are similar to the findings of a study carried out in USA among elite athletes according to (Albrech et., 1992). In this study, like the Hadiya hosanna male football club situation, overall means score were average, while knowledge of procedures was low 42.2%. This indicates a

strong negative poor knowledge towards doping by majority of the football players in the club. These finding indicate a situation where a few Hadiya hosanna male football players are ignorant on doping knowledge. This study provides an insight or no long vision into player's level of doping knowledge.

#### **4.4. Practice of Hadiya hosanna football male club players towards Doping**

In evaluation of attitude towards doping for all selected forty six (46) hadiya hosanna male football club players was asked. The four item in attitude scale was used to assess evaluate Hadiya hosanna male football players towards doping. The respondents were asked about doping, on a five-point likert scale, to indicate the extent to which they with statements concerning doping attitude, how doping is perceived and reported by the public and their desire to achieve. The scale was ranged from 1 –strongly disagree, 2-disagree, 3-neutral, 4-slightly agree, 5-agree, Frequencies, percentages and also the mean value of responses for each item on the scale were computed for every statement was given.

Doping drugs are used in sport with an aim to

| Item   | Strongly disagree |      | Disagree |      | Neutral |      | Agree |      | Strongly agree |      | Mean value |
|--|-------------------|------|----------|------|---------|------|-------|------|----------------|------|------------|
|  | 1                 |      | 2        |      | 3       |      | 4     |      | 5              |      |            |
|  | F                 | %    | F        | %    | F       | %    | F     | %    | F              | %    |            |
| Change body shape and Build a muscle mass within A short period of time  | 21                | 45.7 | -        |      | 8       | 17.4 | 15    | 32.6 | 2              | 4.3  | 2.50       |
| Enhance sport performance In local and international Competitions  | 4                 | 8.7  | 15       | 32.6 | 8       | 30.0 | 17    | 4.3  | 2              | 4.3  | 2.96       |
| Pick the easy option as a Result of not having a desire to spend enough effort to achieve the desire physical capability | 5                 | 10.9 | 9        | 19.6 | 15      | 32.6 | 10    | 21.7 | 7              | 15.2 | 3.11       |
| Merely imitate the others  | 6                 | 13.0 | 11       | 23.9 | 17      | 37.0 | 8     | 17.4 | 4              | 8.7  | 2.85       |

**Table 4.3:** The table shows Hadiya Hosanna male Football Players result or respondent's response in evaluation of doping attitude.

According to the above table asked the players each of the given question as follows the respondents are gives response item one Change body shape and Build a muscle mass within A short period of time, 45.7% are strongly disagree , 17.4% are neutral ,32.6% are said agree and 4.3% are strongly disagree, the mean value 2.50 with the statements. This is indicted the majority of Hadiya hosanna male football players are strongly disagree which is shows negative attitude on the given question.

Item two Enhance sport performance In local and international Competitions, 8.7% are said strongly disagree, 32.6% are said disagree, 30.0% are neutrals, 4.3% are agree and also 4.3% are strongly agree, the mean value 2.96 with statement. This is indicted the majority of Hadiya hosanna male football players are disagree which is shows negative attitude on the given question.

In item three Pick the easy option as a Result of not having a desire to spend enough effort to achieve the desire physical capability, 10.9% are said strongly disagree,19.6% are said disagree,32.6% are neutrals,21.7% are agree and 15.2% are also said strongly agree, the mean value is 3.11 with the statement. This is also indicted the majority of Hadiya hosanna male football players are neutrals which is shows they have negative attitude on the given question.

Item four merely imitate the others, 13.0% are said strongly disagree, 23.9% are disagree, 37.0% are neutrals, 17.4% are agree and 8.7% are strongly disagree, the mean value 2.85 with the statement. This is indicted the majority of Hadiya hosanna male football players are also neutrals which is shows negative attitude on the given question.

Findings of this study tend to be in agreement with Lubna et al., (2008) where Jordanian students and college athletes lacked awareness on doping , Feinberg (2009) reports on lack of awareness by polish athletes and Ama et al., (2003) reporting doping awareness by Cameroonian soccer players being vague and insufficient. It was hoped that since Physical Education in Kenya Teacher trainee education course is a compulsory subject where the content on doping and substance use is outlined in the curriculum, there would be significant awareness on doping among the collegiate-athletes.

Generally From the findings, majority of the Hadiya hosanna football club players (19.6 %) strongly disagree, 76.1% disagree, 29.2% are neutral, 19.0% agree and 8.1% also strongly disagree on the given questionnaires. generally the table is shows the most Hadiya hosanna male football players attitude towards doping negative. the statements that indicate the evaluation of attitude towards doping 76.1% shows disagree so that the result is negative attitude by majority of the players.

#### **4.5. Evaluated Awareness and Practice of doping on Male Football Players**

A number of questions were raised to establish possible occurrence and/or infringement of the eight anti-doping violations stipulated by the researcher Areas assessed included purposeful. An eight item attitude scale was used to assess evaluate Hadiya hosanna male football players towards doping. The respondents were asked about doping, on a five-point scale. The scale ranged from 1 –strongly disagree, 2-disagree, 3-neutral, 4-slightly agree, 5-agree, Frequencies and percentages of responses for each item on the scale were computed for every statement given.

To what extent you agree with the following statements?

| Item  | Strongly disagree |      | Disagree |      | Neutral |      | Agree |      | Strongly agree |      | Mean |
|---|-------------------|------|----------|------|---------|------|-------|------|----------------|------|------|
|   | 1                 |      | 2        |      | 3       |      | 4     |      | 5              |      |      |
|   | F                 | %    | F        | %    | F       | %    | F     | %    | F              | %    |      |
| Merely imitate the others   | 9                 | 19.6 | 11       | 23.9 | 18      | 39.1 | 4     | 8.7  | 4              | 8.7  | 2.63 |
| I respect individuals who take doping agents  | 5                 | 10.9 | 16       | 34.8 | 11      | 23.9 | 14    | 30.4 | -              | -    | 2.74 |
| Taking a doping agent can harm user health  | -                 | -    | 15       | 32.6 | 17      | 37.0 | 14    | 30.4 | -              | -    | 2.98 |
| Taking a doping agent for only a short period is not harmful                                    | 2                 | 4.3  | 11       | 23.9 | 15      | 32.6 | 9     | 19.6 | 9              | 19.6 | 3.26 |
| I may consider using a Doping drugs (sometimes )  | 2                 | 4.3  | 8        | 17.4 | 3       | 6.5  | 12    | 26.1 | 21             | 45.7 | 3.91 |
| I advise individuals not to Take doping substance   | 15                | 34.8 | 5        | 10.9 | 1       | 2.2  | 3     | 6.5  | 21             | 45.7 | 3.17 |
| Proper awareness concerning Adverse effects of doping Substance can help minimizing their usage | 16                | 34.8 | 4        | 8.7  | 2       | 4.3  | 5     | 10.9 | 19             | 41.3 | 3.15 |
| Have you ever take a prohibit Performance-enhancing drug  | 9                 | 41.3 | 6        | 13.0 | -       | -    | 3     | 6.5  | 18             | 39.1 | 2.89 |

**Table 4.4:** *The table shows Hadiya Hosanna male Football Players respondents response in evaluation of doping practices.*

Looking at responses to individual statements, when asked item one Merely imitate the others ,19.6% strongly disagreed, 23.9% disagree, 39.1% neutrals,8.7% agree and also 8.7 are strongly agree the mean value 2.63.

On the issue of item two I respect individuals who take doping agents 10.9% strongly agreed, 34.8% disagree, 23.9% neutral and also 30.2% agree the mean value is 2.74. asked whether they Taking a doping agent can harm user health , 32.6% responded disagree,37.0% are neutral,30.4% agree and also the mean value 2.98.

another question was raised on whether Taking a doping agent for only a short period is not harmful 4.3% strongly disagree,23.9% disagree,32.6% neutral,19.6% agree and also 19.6% respondents said strongly agree with the mean value of 3.26.

On the issue of whether I may consider using a Doping drugs (sometimes), a total of 4.3% strongly disagree, 17.4% disagree, 6.5% neutral,26.1% agree, and 45.7% are said strongly agree and the mean value 3.91 with the statement.

Asked if they i Advice individuals not to Take doping substance in any condition,34.9% strongly disagree,10.9% disagree,2.2% neutral,6.5 agree and also 45.7% are said agree and the mean value 3.17. on the next questions Proper awareness concerning Adverse effects of doping Substance can help minimizing their usage,34.8% strongly disagree,8.7% disagree,4.3% neutral and 10.9% agree ,41.3% strongly agree on the statement and the mean value 3.17.

Asked if a football players Have you ever take a prohibit Performance-enhancing drug, 41.3% strongly disagree,13.0% disagree and 6.5% are agree, 39.1 % strongly agree on the given statement the mean value was 2.89.

The findings are also comparable to those of a study conducted among Finish elite athletes. According (Alaranta, 2006), which indicated similar practice trend. Like in the Hadiya hosanna male football club players situation, none of the subjects of the study admitted doping, the findings reflect or indicated that a strong trend of negative or the majority of the Hadiya hosanna male football club players respondents give the response towards doping practice.

## **5. SUMMARY, CONCLUSIONS and RECOMNEDATIONS**

### **5.1. Summery**

The purposes of this study were evaluated Awareness and Practice of doping on Male Football Players. The target population was Hadiya hosanna male football clubs. A sample size are 46 male subjects was selected from the (52) total population of Hadiya hosanna male football club players. A total sample size 46 players are successfully completed the questionnaires. The study was a cross sectional survey based on self-reported questionnaires. The all Data was coded and analyzed by using SPSS computer software version 20 and the researcher was used frequency, percentage and mean vale. Generally Assessment of evaluated Awareness and Practice of doping on Male Football Players had a negative result towards doping with varying degrees. The majority of the club players indicated a positive thinking towards on assessment of doping, and the majority of the players having ever used Performance Enhancing Drugs (PEDs). This is indicated average to low. . Hadiya hosanna male football players have slightly less awareness and practice on doping issues.

### **5.1. Conclusions**

From the study, it can be concluded that Hadiya hosanna male football club players have low Awareness and Practice of doping on Male Football Players of doping with slight variation on specific doping issues. Which is indicating the result was negative.

- They are must need a doping education to improve their knowledge attitude and practice on doping and also to establish proper structures and policies of doping control in order to the problem of doping. This was seen in their strong negative attitude towards the practice. The popularity of doping practices in the club was established to be very low.
- They have no common sources of information about doping and a large number of the players do not spend time to check information on drug-free sport and a few numbers of Hadiya hosanna male football players also, have never received information on doping even if Hadiya hosanna football club by itself have never received information about doping.

- The majority of Hadiya hosanna male football player's at risk of violating doping regulation as a result. The findings that more than half of players do not access the information released as club have no trend.
- In conclusion, though doping practice is established to be good, there is evidence of existence of the practice in the Hadiya hosanna male football club. If left unaddressed, there is a likelihood that it can grow, given the possible factors driving football players' to dope being so real.
- The concerned sports organizations, football fans and arms of government should explore all possible means of addressing the problem, which may include improving access to doping information and developing doping structures and regulations.

### **5.3. Recommendation**

Based on the summary of the major findings of the study and conclusions drawn the following recommendations are forwarded:

- The Sport office of Hadiya zone is expected to give the players by increasing educational program and implementing other motivational mechanisms because a problem has a greater impact on the future development of players in a team and in player's health.
- The management bodies of the Hadiya hosanna male football club are expected to reconsider their existing structure in a manner of increasing transparency, accountability and responsibility among the players.
- The management bodies of Hadiya hosanna male football club at different levels are expected to give significant attention to protect the importance issues like players medical checking culture, importance of psychological development us having a good performance without taking any performance enhancing substance and without knowing using a nutritional needs. This is making a great problem in the player general life.

- The management body of the club, Hadiya zone sport office and other concerned bodies are expected to design ways of producing information source or giving important information about any banded substances.
- The concerned sports organizations, football fans and arms of government should consider all possible means of addressing the problem, which may include improving access to doping information and developing doping structures and regulations

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## **7. APPENDICES**

## **APPENDIX- A:**

### **Participants Information Sheet and a Consent Form**

Researcher`s name: **Wondimagegn Tesfaye Abebe**

Major- Ad-visor`s name: **Shemelis Mekonnen (PhD)**

Co-Ad-visor`s name: **Abinet Ayalew (PhD)**

Thesis Title: Awareness and Practice of doping on Male Football Players; the Case of Hadiya Hosanna Town Football Club; Ethiopia

You are being asked to participate in this research study as described below. All research studies carried out like this one are governed by the regulations for research on human beings. These regulations require that the researcher should obtain a sign agreement (consent) from you to participate in this research project. The researcher will explain to you in the detail purpose of the project, the procedures to be used, the potential benefits and the possible risk of participation in this study. You can ask a researcher any questions that you may have about a study and expect to receive satisfactory answers regarding the same. A basic explanation of the project is summarized below.

### **Purpose and procedures**

The purpose of this research is Awareness and Practice of doping on Male Football Players. The subjects to be involved in this study will be fifty two (52) players from main and youth team in the club.

**Risks and Safeguards;** the risks of this research study are small. While administering during data collecting training sessions you may experience lack of understand on doping because in our country the most football players educational level is weak and even they are not know what they are said about doping . But we do not expect any unusual risks as a direct result of this study.

**Confidentiality:** The information obtained about you will be kept in confidence, although you are free to release it to your own physician.

The information will be used only for scientific purposes without identifying you as an individual.

**4. Contact Address:**

Wondimagegn Tesfaye Abebe\_\_\_\_\_+251916882060

E-mail \_\_\_\_\_wondets2009@gmail.com

I certify that I have and fully understood the above project; therefore, I consent to participate in this study.

Name of Subject; \_\_\_\_\_

Signature; \_\_\_\_\_

Address: \_\_\_\_\_

Date; \_\_\_\_\_

I certify that I clearly explained the nature of the study, purpose of potential benefits and that may be possible risks involved in this research study.

Signature of Investigator: \_\_\_\_\_

Date; \_\_\_\_\_

## Appendix- B

The survey study Questionnaire table field by players. The survey study is in evaluation Awareness and Practice of doping on Male Football Players. Please take your time to frankly and carefully answer the following questions, by filling the gap by ticking.

### Part I: Do you agree that the Following Substances Can Have Doping/Performance-Enhancing Effects in Sport?

| No | Item or Substance    | 1 | 2 | 3 | 4 | 5 |
|----|----------------------|---|---|---|---|---|
| 1  | Amino acids (AA)     |   |   |   |   |   |
| 2  | Anabolic (masculine) |   |   |   |   |   |
| 3  | Diuretics            |   |   |   |   |   |
| 4  | Energy drinks        |   |   |   |   |   |
| 5  | Growth hormone       |   |   |   |   |   |
| 6  | Narcotics            |   |   |   |   |   |
| 7  | Stimulants           |   |   |   |   |   |
| 8  | Vitamins             |   |   |   |   |   |

**Table 1:** the appendix table research questioners on evaluation of Hadiya Hosanna Male Football club player's knowledge in doping.

**Part II: Doping drugs are used in sport with an aim to:**

| No | Item or statements   | 1 | 2 | 3 | 4 | 5 |
|----|--|---|---|---|---|---|
| 1  | Change body shape and Build<br><br>a muscle mass within A short period of time   |   |   |   |   |   |
| 2  | Enhance sport performance<br><br>in local and international Competitions   |   |   |   |   |   |
| 3  | Pick the easy option as a Result of not having<br><br>a desire to spend enough effort to achieve the desire<br><br>physical capability |   |   |   |   |   |
| 4  | Merely imitate the others  |   |   |   |   |   |

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**Table 2:** the appendix table research questioners on evaluation of Hadiya hosanna male football club player's attitude in doping.

**Part III: To what extent you agree with the following statements?**

| No | Statements   | 1 | 2 | 3 | 4 | 5 |
|----|--|---|---|---|---|---|
| 1  | Taking a doping agent is an ethical deed   |   |   |   |   |   |
| 2  | I respect individuals who Take doping agents.  |   |   |   |   |   |
| 3  | Taking a doping agent can harm user health.  |   |   |   |   |   |
| 4  | Taking a doping agent for only a short period is not harmful.                                    |   |   |   |   |   |
| 5  | I may consider using a Doping drugs (sometimes )   |   |   |   |   |   |
| 6  | I advise individuals not to Take doping substance  |   |   |   |   |   |
| 7  | Proper awareness concerning Adverse effects of doping Substance can help minimizing their usage. |   |   |   |   |   |
| 8  | Have you ever take prohibit Performance-enhancing drug?  |   |   |   |   |   |

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**Table 3:** The appendix table research questioners in evaluation of Hadiya Hosanna Male Football Club player's practices in doping.

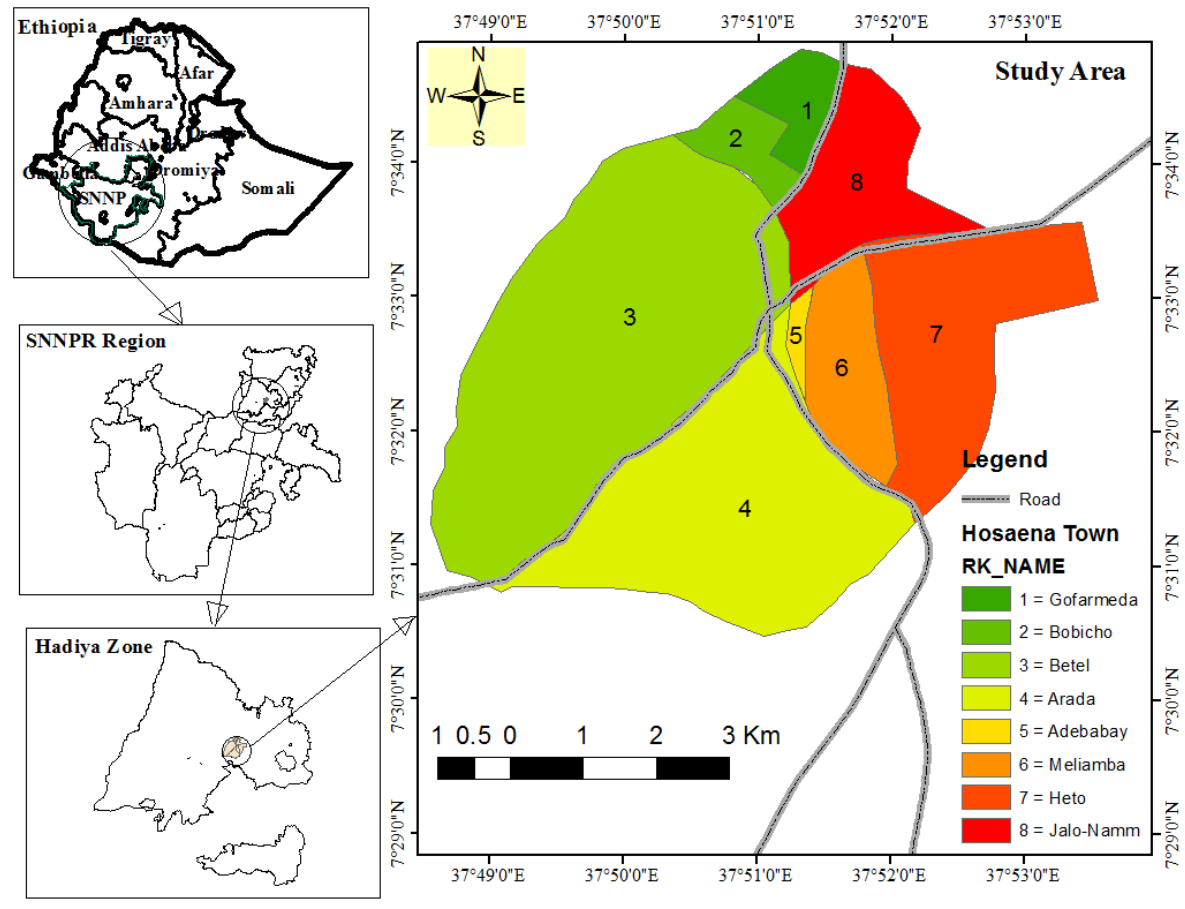
Thank you for participating in this study.

**Source:** [www.wada-ama.org/en/questions-answers/world-anti-doping-code#item-831](http://www.wada-ama.org/en/questions-answers/world-anti-doping-code#item-831)

### APPENDIX- C

Figure 1: Map of the study Site.

#### Map of Study Area



Source: - Arc GIS by the Researcher

## APPENDIX D

When the research was collected the data from players.



