

**THE IMPACTS OF KHAT (CHAT) AMONG ACTIVE SPORT  
PARTICIPANTS' THE CASE OF KAFFA ZONE, BONGA TOWN IN  
SOME SELECTED FOOTBALL CLUBS**

**BY**

**ABDU NURU ABBAMEGAL**

**A THESIS SUBMITTED TO THE SCHOOL OF GRADUTE STUDIES OF ADDIS  
ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIRMENTS FOR  
THE DEGREE OF MASTER OF SCIENCE IN SPORT SCIENCE**

**JUNE, 2013**

**ADDIS ABABA, ETHIOPIA**

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JUNE, 2013

ADDIS ABABA

## ABSTRACT

The main effects of Khat (Chat) are on the cardiovascular systems, gastrointestinal systems, and nervous system (WHO 2006). Accordingly, this implies that the effects of khat are seen on the active sport participants in their health status. The Main Purpose of this study was to investigate the impacts of Chewing Khat on sport participants". A descriptive Survey method was employed to achieve the study. The study was conducted on 50 active Sport participants", 36 non sportive communities, 14 Coaches, sport officials & administrators and 3 Khat sellers. Most of the study participants" were reached by questionnaire in which they were expected to rate their attitudes and perceptions on factors that affect the development of sport due to Chewing Khat by Sport Participants. Qualitative data were collected, through interview, Observation with checklist and focus group discussions. Quantitative data gathered through questionnaire were tabulated and expressed using percentage.

Finally, the study come up with the major findings: research hypothesis is alternate because 40 % (20) sport participants are chew Khat sometimes and usually, the players had no salary and incentives, there are shortages of recreational place in the study town, and few respondents do not understand the negative impacts of chewing Khat. The lack of specialized coaches, the absence of rules and regulations to govern the foot ball clubs and the lack of continuous computational schedule are also problems in the study subjects. Commercial participants in the Khat trade aggravate the importance of chewing of Khat instead of showing its negative impact. Those all mentioned above invite the sport Participants" to chew khat.

Chewing of a Khat affects physiological, Psychological, sociological impacts on sport participants and reduces the development of sport in general.

Hence based on the findings the zone and woreda sport officials & administrators, Health centers, coaches, communities and NGO need to work cooperatively to combat the problems.

**Key words:** *Khat (Chat), Active sport participants', Impacts of khat, physiological impact, psychological impact, and sport development.*

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

<b>ACMD</b>	Advisory Council on the Misuse of Drugs
<b>BCTE</b>	Bonga Collage of Teachers“ Education
<b>BTVET</b>	Bonga Technical & Vocational Training
<b>CHD</b>	Coronary Heart Disease
<b>ECDD</b>	Expert Committee on Drug Dependence
<b>ESDP</b>	Education Sector Development Program
<b>FB</b>	Football
<b>FGD</b>	Focus Group Discussion
<b>IOC</b>	International Olympic Committee
<b>NGO</b>	Non Governmental Organization
<b>SNNPR</b>	South Nation and Nationality People Region
<b>ZOFED</b>	Zone Finance & Economy Development
<b>WADA</b>	World Anti Doping Agency
<b>WHO</b>	World Health Organization

# CHAPTER ONE

## INTRODUCTION

### 1.1. Background of the study

Khat [chat] or *Catha edulis* Forsk [Celastraceae] is a large green shrub that grows naturally at elevations of 1500 – 2000M but is found at altitudes of 1200 – 2500M. In the region extending from eastern to southern Africa, as well as Arabian Peninsula. This plant is known by several names, the common ones being: Chat [in Amharic], Gat, Khat, Qat, [ in Arabic ],Mira, Mlonge [in Swahili] ( Sawair et al.,2007 ).

Originating in Ethiopia, khat now also grows in Somalia, Kenya, Malawi, Uganda, Tanzania, Congo, Zambia, Zimbabwe, Afghanistan, Yemen, and Madagascar.

Khats at leaves are crimson –brown and glossy but become yellow –green and leathery as they age.

As kaffa zone is large part of occupied by ever- green natural forest which includes different vegetation likes Coffee & Mahogany. Khat is one of the plants that are found in the thick forest. The wild Khat plant in the forest is locally called Jebelly – Khat from high land forest.

Moreover it is also cultivated in communities’ farm land. Namely: Jebely, Sombo, Nashif, Sadero and so on. Nonetheless it is more or less similar in character with different khat growing region in different areas of Ethiopia.

The leaves are up to 5 cm wide and up to 10 cm long and emit a strong aromatic smell and have a stringent and slightly sweet test ( Sawair et al.,2007 ). The stimulant effect of khat or chat related to the cathine content of the leaves (kalix, 1990). Cathinone is metabolized rapidly cathine [norpseudoephedrine] and norephedrin, which possess weak central stimulant properties because of their less lipophilic character (Geissshuster and Brenneison, 1987).

Kennedy et. al., (1983) noted over 25 years ago that few the allegations of health effects made against khat were substantiated in controlled study in humans. In a wide ranging review Pennings et al (2008) recently came to a similar conclusion.

“The abuse potential of khat is low and khat dependence is low. Mild craving and tolerance to khat effects exists but there is no definite withdrawal syndrome. There is no strong, and even contradictory, evidence for a causal relation between khat use & psychiatric morbidity.”

Whilst there have been more specific data gathered and there have been improvements in research in to the social impacts of khat, there still remains a lack of data demonstrating clear deleterious social and health effects associated with moderate khat use. Some authors estimate that ten million people chew khat daily, worldwide (stefen & Mathew, 2005, penning et al, 2008).

The importance of the social context in shaping psychoactive drug effect is well understood and characterized in the academic literature. Zinbergs [1984] famous frame work for understanding this relationship between the drug, the mindset of the user and the setting in which a drug is used has been summarized in the term-“drug-set, setting”. In this report the drug set setting frame work will be used to examine the evidence surrounding the effects of khat.

As a plant containing amphetamine –like substances, the main effects of chat are on the cardiovascular systems, gastrointestinal systems, and nervous system (WHO 2006).

Accordingly, this implies that the effects of khat are seen on the active sport participants in their health.

Athletic performance is made up of a complex blend of number of factors. The relative importance of each will depends of the demands of the sports and needs of the individuals. Greatly influenced performance by an athlete’s surrounding environment.

Factors that affecting physical fitness programs are stated by many scholars in different ways. Then, (Percival et al 1992 ; cited in Bayissa, 2012) explained to develop safe effective, health enhancing exercise program that gaits everybody means looking at a member of factors such as age, current health status, personal interest, personality type, finance, the climate you live in and the availability of exercise facilities and other that we need to take into account. Accordingly, this indicate that the impacts of chewing Khat on physical fitness programs. These are current health status, personality interest, personality type and finance in order to Khat user active sport participants.

The study area is located in the Southern Nations Nationalities People Regional State (SNNPRS). Kaffa is bounded by Oromiya Region on Northwest, North & Northeast, Dawro Zone on the East & Southeast, South Omo Zone on the South, Bench Maji Zone on the Southwest and Sheka Zone on the West. Bonga, the capital city of Kaffa Zone, is situated 460 Km Southwest of Addis Ababa and 110 Km South of Jimma (ZOFED 2012).

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

Active sport participants are in principle to get a state of positive health such as complete physical, mental and social wellbeing, which is not merely the absence of disease.

Despite of this complementary health state has many problems and constraints which investigation on active sport participants.

Therefore, the main purpose of this study is to identify the impacts of chat [ khat ] among sport participants in Kaffa Zone, Bonga town in some selected football clubs players to take interning actions in doing so, the study will try to answer the following basic questions;

## **1.3. Research Questions**

1. Do sport participants chew khat? If yes, why? If, not why?
2. What are the impacts of chewing Chat [khat ] on sport participants?
3. Does the negative impact of khat [chat] in influencing on sport development in kaffa zone considered or understood?
4. What measures should be taken to solve the problems related to Khat chewing?
5. What is the role of stakeholders in improving sports performance and participation?

## **1.4. Objective of the study**

### **1.4.1. General objective**

The general objective of this study is investigating the impacts of khat [chat] in active sport participants.

### **1.4.2. Specific objectives**

The specific objectives of this study are:

- To assess the attitudes and knowledge of sport participants towards khat
- To explore the impacts of chewing khat [chat] on active sport participants.
- To describe the negative impact of khat on sport development
- To elaborate measures which should be taken to solve the problems

## **1.5. Significance of the study**

The study is essential in order to find out the problems of the impacts on chewing khat among active sport participants in Kaffa zone, Bonga town, in some selected football players more specifically it is believed that this study will:

- A. Create awareness to coaches and players about the impacts of khat on sport activities, in terms of the time it takes, social, physiological, economical life and psychological effects.
- B. Help to take intervening actions to minimize the adverse effects of player's health.
- C. Help concerned bodies to feel the place of khat among players and to play their role in mitigating the problems.
- D. Reflecting the misunderstandings of Khat (Chat) on sport activities.
- E. Help to fill the existing knowledge gap.
- F. Invite other researchers on issue (adverse) effect of khat.

## 1.6. Hypothesis

Because „Khat is becoming the part of the daily routine of the society, the researcher speculates that active sports men are not immune from chewing khat .“

## 1.7. Delimitation of the study

To manage the study, and overcome financial, time and geographical constraints, the study is conducted in South Western parts of Southern, Nations and Nationality People Regional Government, Kaffa Zone, Bonga town in some selected football club players with a total of 50 players and 50 non sportive participants and sport officials & 3 khat sellers. Due to lack of time and financial problems the study was limited in three football clubs.

## 1.8. Limitations of the study

This study had come across the following limitations

1. Lack of adequate related literature and findings to support this study.
2. The respondents' limited understanding to each item may have affected the study.
3. Lack of adequate time
4. Sampling technique of sample size (small size) may have negatively affected the present study.

## 1.9. Operational Definition

**Active sport participants:** as a continuum ranging from sedentary through to highly active.

**Drug:** a substance that has a physiological effect when ingested or otherwise introduced into the body in particular.

**Drug abuse:** Habitual use of drugs to alter one's mood, emotion, or state of consciousness.

**Health:** Are a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity [WHO].

**Khat** [chat]: a white -flowered evergreen shrubs, *Catha edulis* of African and Arabian, whose leaves have narcotic prosperities.

**Physiological impact:** consistent with not normal function of an organism.

**Psychological impacts:** influencing or intended to influence the mind or emotions.

**Sociological impacts:** the affect an activity and wellbeing of the individuals and families.

**Sport:** An activity involving physical effort and action.

### **1.10. Organization of the Thesis**

The organization of the study has five chapters. The 1<sup>st</sup> chapter includes Background of the study, Statement of the problems, Objective of the study, (general & specific objectives), Significance of the study, Hypothesis, Delimitation of the study, Limitation of the study, Definitions of operational terms and organization of the study.

Chapter two deals the review of related literatures.

The third chapter deals with the research methodology and design, source of data, population and sampling techniques, population of the study, data collection instruments, procedures of data collection and methods of data analysis. And the fourth chapter of the study includes data analysis and discussion the interpretation of the data collection, and finally chapter five deals with the summery, conclusion and recommendation.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1. Introduction**

This chapter is concerned with reviewing the literatures that are basically related to the present study. Accordingly, it is devoted in substantiating the study by providing information about impacts of chewing khat. Specifically, the review include, historical back ground of Khat, the physiological, psychologically and sociological impacts of chewing khat , toxicity of khat, sleep and rest, and khat and international law and factor affects of physical fitness, sports and recreation perspectives of Khat and so on.

#### **2.2. Historical Background of Khat**

Khat [chat] or *Catha edulis* Forsk [Celastraceae] is a large green shrub that grows naturally at elevations of 1500 – 2000M but is found at altitudes of 1200 – 2500M. In the region extending from eastern to southern Africa ,as well as Arabian peninsula .This plant is known by several names ,the common ones being: Chat [in Amharic], Gat, Khat, Qat, [ in Arabic ],Mira, Mlonge [in Swahili] ( Sawair et a.l, 2007).

Originating in Ethiopia, khat now also grows in Somalia, Kenya, Malawi, Uganda, Tanzania, Congo, Zambia, Zimbabwe, Afghanistan, Yemen, and Madagascar. Khat goes by numerous names: khat, qat, chat, qaadka, kus-es-salahin miraa, tohai, tschat, Abyssinian tea, African tea, African salad, and brown cows [ in tablet form ] Qat leaves are crimson –brown and glossy but become yellow –green and leathery as they age (Sawair et al., 2007).

As kaffa zone is surrounded by evergreen natural forest which includes different vegetation like Coffee, Khat & Mahogany. khat is one of the plants that are found in the thick forest. More over it is also cultivated in communities’ farm land. In defferent names: Jebely, Sombo, Nashif, Sadero & so on.

Nonetheless it is more or less similar in character with different khat grown in different areas of Ethiopia.

The leaves are up to 5 cm wide and up to 10 cm long and emit a strong aromatic smell and have a stringent and slightly sweet test (Sawair et al., 2007).

### **2.3. The Effects of Khat**

Some authors estimate that 10 million people chew khat daily, worldwide (Stefan & Mathew, 2005; Pennings et al, 2008). Studies of khat consumption in the United Kingdom suggest that the context of consumption (i.e. displacement and social marginalization) may have significant effects in shaping the outcomes from khat consumption (Griffiths et al., 1997 Nabozoka & Badhadhe, 2000; UK Advisory Council on the Misuse of Drugs, 2005; Patel, 2008; Pennings et al., 2008).

Further, the perception of the status of khat can have an impact on the social impact of its use. Carrier (2008) notes the wide disparity of views on the status of khat and its social impact in Africa:

“Perceptions are colored by various local and global discourses, of great importance is “war on drugs” rhetoric, which allows the conflation of miraa with other substances also termed “drugs”; much of the Kenyan miraa debate revolves around just how miraa should be categorized and to whether it can be labeled a “drug.” War-on-drugs rhetoric is countered by those more enamored of the substance by discourse in which its use is labeled “traditional,” “cool,” and an “economic miracle.”

The importance of the social context in shaping psychoactive drug effect is well understood and characterized in the academic literature. Zinberg’s (1984) famous framework for understanding this relationship between the drug, the mindset of the user and the setting in which a drug is used has been summarized in the term – “Drug, set, setting”. In this report the drug set setting framework will be used to examine the evidence surrounding the effects of khat.

In terms of the drug, fresh khat is reported to contain an average of 36mg cathinone, 120mg cathine and 8mg norephedrine per 100g of leaves (Geissshusler & Brenneisen, 1987).

As a plant containing amphetamine-like substances, the main effects of khat are on the cardiovascular system, gastrointestinal system, and nervous system (WHO 2006b). According to a critical review by the World Health Organization (WHO) there is inconsistent data regarding the dependence potential of khat (WHO 2006a). According to Nutt et al., (2007) khat was ranked

the lowest of 20 of the most well known licit and illicit psychoactive substances (Nutt et al., 2007) in terms of physical harm, dependence and social harm. Griffiths et al., (1997) report in a study of khat use by Somali immigrants in the United Kingdom that medical problems associated with khat use were rare.

At the 34th meeting of the WHO Expert Committee on Drug Dependence (ECDD) it was determined that the potential for khat abuse and dependence was low. In the 2006 report of the committee it was also noted that “The level of abuse and threat to public health is not significant enough to warrant international control. Therefore, the Committee did not recommend the scheduling of khat” (WHO, 2006b).

As a consequence of the “drug-set-setting” approach to understanding the effects of psychoactive drugs, the literature on khat is reviewed in terms of the pharmacology, the setting of use and the mindset of users.

### **2.3.1. Pharmacology**

This review of the pharmacology of khat is limited to human studies. There is a substantial literature from animal studies on khat and cathinone, which have been recently reviewed (Feyissa & Kelly, 2008).

#### **Pharmacokinetics**

According to several early studies, on average around 100–300g of khat can be chewed in a 3-4 hour khat session (Nencini & Ahmed 1989; Kalix ,1990, 1994). The most detailed account of Khat pharmacokinetics is reported by Toennes et al., (2003). In that study, Toennes et al., (2003) conducted a pharmacokinetic study following administration of 36–59 g of khat or approximately 0.5 mg/kg body weight.

The mucosa of the mouth is thought to be the first absorption segment, where most of the active constituents are absorbed (mean  $\pm$  SD 59  $\pm$  21% for cathinone and 84  $\pm$  6% for cathine). The extraction of the active constituents from the leaves by chewing is very effective with only 9.1  $\pm$  4.2% remaining as a residue after chewing (Toennes et al., 2003). Similar findings were reported in Brenneisen et al (1990) who examined the pharmacokinetics of cathinone (0.6 mg/kg body weight). The second adsorptive segment is the stomach and small intestine.

Peak plasma levels of cathinone are obtained 1.5–3.5 h after the onset of chewing khat (Feyissa & Kelly, 2008). After 1-hour of chewing, plasma levels range from 40 to 140 ng/ml (mean 83 ng/ml). Cathinone is detectable in plasma for up to 24 hours after khat consumption. The elimination half-life is 260 min (Widler et al., 1994). Metabolism of cathinone is rapid. Only 2% of administered cathinone was found unchanged in the urine (Brenneisen et al., 1986; Nencini & Ahmed, 1989).

Blood pressures are elevated for about 3 hours after 1 hour of chewing of 0.6 g/kg, about one quarter of the amount consumed in a traditional khat session (Toennes et al., 2003). This dose is comparable with a mean oral dose of 45 mg cathinone.

Cathamines are excreted in breast milk and detected in the urine of breast-fed babies 2-4 hours after ingestion (Graziani, et al., 2008).

### **2.3.2. Cardiovascular Effects**

Khat has direct effects on the cardiovascular system causing clear increases in heart rate and blood pressure in humans. As an illustration of the cardiovascular effects the results of (Brenneisen et al., 1990) are reproduced in more detail. Khat: a literature review A general population survey of approximately 4000 urban Ethiopians reports current khat chewing to be significantly associated with elevated mean diastolic blood pressure (Tesfaye et al., 2008).

### **2.3.3. Central Nerve System Effects**

The subjective effects of khat include euphoria, intellectual efficiency and alertness in most subjects, while others report only dysphoria after khat chewing.

The expression of these effects appears to be affected by environmental factors (Nencini, P., A.M. Ahmed and A.S Elmi, 1986).

Insomnia is the most frequently reported effects of khat chew among khat users. With regard to relation between CNS problems and khat use (Halbach, H., 1972) Reports that migraine and cerebral edema after the intake of khat, particularly in older and predisposed individuals. The minor reactions of Khat are included talkativeness, over activity, insomnia, anxiety, irritability, agitations and aggression (Yousef et-al, 1995).

### **2.3.4. Periodontal Effects**

There is evidence of increased risk of periodontal cancer associated with khat consumption. Recent reviews of the evidence suggest however that there are numerous complications with the evidence. (Pennings et al., 2008) suggest conflicting evidence regarding periodontal disease, a findings supported by the (WHO, 2006b). (Al-Hebshi & Skaug, 2005) suggest that there is only weak evidence that khat chewing is a risk factor for oral cancer. However the ECDD (WHO, 2006b) and (ACMD 2005) suggest that there is a growing evidence that oral cancer may be a significant issue related to khat chewing due the widespread development of pre-cancerous growths in the mouths of regular khat chewers (ACMD, 2005).

The use of Khat is associated with development of gastro intestinal problems (Al-Haborim, 2005).

### **2.3.5. Psychopharmacological Effects**

Cathinone has markedly stronger effects than cathine and norephedrine. For example, cathinone has been reported to be 7-10 times more potent than cathine on a behavioral measure of food intake (Peterson, Maitai, & Sparber, 1980). For this reason, distinctions will be made in this review when findings are in relation to cathinone or for fresh/dried khat.

In a comprehensive study of the relationship between Khat consumption, war trauma and psychosis in Somaliland, (Odenwald et al., 2002) report:

“The mental suffering brought about by traumatic experiences augments drug intake to overcome the painful memories, the symptoms of post-traumatic stress disorders, grief, and depression”.

When weighing the evidence for the relationship between mental illness and khat use, the ACMD note the importance of the social and psychiatric context of khat consumption. Although khat use is widespread amongst communities in East Africa and the Middle East it causes low levels of psychiatric illness in those places. However, in the United Kingdom and other developed countries those left vulnerable from traumatic life experiences may be more likely to suffer mental illness related to khat use. The considerable stress experienced during the process of immigration may further contribute to the risk of harm (ACMD, 2005).

This observation has been developed in a review from the United Kingdom, where it has been suggested that khat has a role in community building through forming communities around community-based behaviors (Patel et al., 2005).

Alternatively, there is evidence that heavy khat consumption can result in acute psychiatric problems (Pantelis et al., 1989). In moderate users there was no excess morbidity associated with khat consumption; however consumption of more than two bundles per day was associated with increased psychiatric morbidity (Dhadphale & Omolo 1988).

Low levels of irritability, sleeplessness and fatigue, or “let down” after khat consumption has been reported previously (Stevenson et al., 1996). Table 3 (last column) notes that whilst there is little evidence of causal links between khat consumption and psychiatric morbidity, there is evidence of links between sub-clinical depression, irritability and other associations between khat and mental health.

Warfa et al., (2007) note the lack of evidence supporting causal links between mental illness and khat consumption. Whilst there are numerous case studies, anecdotal and clinical reports of associations between khat use and psychosis the causal link between khat use and psychosis is often overstated and often driven by social, economic, religious and political concerns manifest in a “war on drugs” rhetoric (Warfa et al., 2007). Similarly, Odenwald (2007) noted that the majority of published reports on the link between khat use and mental illness are case reports and expert commentaries rather than controlled empirical studies. With regard to psychosis there is still not sufficient evidence to conclude that khat causes psychosis, regardless of dose. Odenwald et al., (2005) suggests :

“khat consumption precipitates psychosis by either increasing the risk in already vulnerable individuals or affecting the course of a psychotic disorder and the maintenance of symptoms”.

(Anderson et al., 2007) similarly note the inadequacy of data that can establish a causal link between khat use and psychiatric disorders. Their summary of the psychiatric data is reproduced

### **2.3.6. Abuse Potential**

Using a systematic framework to assess the harm of current and future drugs of abuse, (Nutt et al., 2007) ranked a range of 20 psychoactive substances in terms of social harm, physical harm and dependence potential.

As can be seen in figure 3, the ranking system positioned khat as the least harmful substance in the group of substances evaluated in the United Kingdom by a panel of experts. Khat is not a scheduled drug in the United Kingdom. Following from the recommendation of the Advisory Council on the Misuse of Drugs (ACMD, 2005) khat remains a nonscheduled substance in the United Kingdom.

Although the ACMD (2005) suggested that dependence on khat was likely, the nature of this dependence was compared to a dependence on caffeine. The ACMD noted that: “the vast majority of people who chew khat do not use in a dependent fashion and there is no evidence of more widespread drug misuse amongst khat users” (ACMD, 2005).

### **2.3.7. Social Impacts**

There has been much speculation on the negative impacts of khat consumption on family and social life (Aden et al., 2006; Warfa et al., 2007; Gebissa, 2008). The ACMD suggests however that whilst there is some evidence that Khat can have a negative impact on family relationships it is just as likely that khat may be a “convenient scapegoat” for family disruption (ACMD, 2005). This strong conclusion emerging from the most senior UK advisory body on misuse of drugs needs to be understood in context. The ACMD documented numerous accounts of family disruption associated with khat use, however came to the conclusion that family disruption, although associated with khat use was rarely found to be caused by khat use. The emphasis here is that whilst the ACMD report was very sympathetic to the lived experience of families and the potential harm associated with khat, they found little evidence of khat being directly responsible for harm. The report noted that it was most likely reports of family disruption were related to a number of factors, of which khat may be just one.

In an attempt to both account for the severity of domestic violence and to illustrate the multifactorial nature of the source of this conflict (Anderson et al., 2007) describe a typical scenario of khat related domestic conflict:

“Informants have indeed described scenarios where domestic disputes deteriorate into violence related to khat. The one that best fits with the typology of drug-driven violence is the gradual erosion of domestic harmony as husbands, fathers, sons return from their “khat spree” feeling tired, irritable and morose. They no longer have either the energy or the confidence to contribute to running a household or raising the children. Instead they lock themselves in their bedrooms to catch up with sleep.

Fights often ensue over the sharing of tasks, or getting families to keep quiet. Such disagreements may come to revolve around the notion of authority and command within the home, and the distribution of responsibilities and privileges”. Anderson et al., (2007)

According to (Anderson et al., 2007) khat therefore is implicit to conflict, however is not a sole cause.

Although there is some evidence of khat having a role in motor vehicle accidents, the analysis of these reports reveals few causal links between khat consumption and poor motor vehicle performance (ACMD, 2005). It is possible that intoxication with khat may impair driving however

ACMD concluded that “it seems that using khat alone causes very little impairment in an individual’s ability to drive” (ACMD, 2005).

In a review of the social impact of khat use in the Netherlands, Pennings et al., (2008) reported that there were no recorded incidents of aberrant behaviour, organized crime or health effects related to khat consumption in the Netherlands (Pennings et al., 2008).

Anderson et al., note in a summary report from a 2005 UK Economic and Social Research Council review of khat and its use suggest: “Findings on the effects of khat on consumers rank it as a mild stimulant, not a hard drug. Nor is there evidence to suggest that khat use can be linked to crime or violence among the immigrant groups who use it, despite the continuing tone of newspaper coverage in the UK and elsewhere.”

Although there may be a temptation to compare the alleged impact of khat on families with the impact of alcohol the observations of Oldenwald et al. (2002, 2005, 2007) on the complicated relationships between mental illness, displacement, trauma and khat use, it is more helpful to consider khat as one factor among a number of factors that can exacerbate family disruption.

A number of local organizations and agencies call for khat – ban through their symposiums and discussions that khat has a potential adverse effect is diversion of income for purchasing khat, resulting in neglecting the essential needs of the families discord and divorce.

According to (Alem and Shibre, 1997), has reported a relationship between Khat chewing with economic frustration and boredom.

### **2.3.8. Psychiatric Aspect of khat Use**

A among the most controversially discussed khat are chat induced psychotic phenomena and khat potentiality for dependence.

Khat chewers report increased levels of energy, alertness, sensation of elation, self-esteem, enhanced imaginative ability and capacity to associate ideas when chewing.

In general terms ,there were sporadic case reports on a possible association between khat use and the occurrence of mental disorders ,such as hypomania , manic psychosis, psychotic reaction , schizophreniform psychosis ,aggressive behavior or psychosis and homicide ,and suicide among users.(Pantlis ,C.,C.G.Hindler and J.C Tayler,1989).

### **2.3.9. Toxicity of the khat**

To identify only one previously reported death from medical complications directly related to the use of khat in the literature or from surveys of contacts in the European Union, the eastern Mediterranean and Arabian Gulf regions.

The solitary death was described the death from poisoning by *Catha edulis* of an elderly Arab trader in wajir. Northern Kenya, after consuming an excessive amount of miraa stalks. The man was admitted to hospital and exhibited a number of symptoms including dilation of the pupils, cold sweats, convulsions, and hyper an estethia. He fell in to a coma [clinical observation] and died after 4 days. A post-mortem showed that the stomach was full of khat. Death could not be attributed to any cause other than khat consumption. Substantial advances in toxicological and medical knowledge have been made since then, but attribution can still be difficult in some cases. However, several deaths in the united kingdom due to medical complications following the consumption of khat have been reported to or identified by the National Programmed on substance Abuse Deaths [np-SAD]. These cases, including relevant discussion of mechanisms of death for these as well as psycho-pathological factors, are described in more detail in

complementary paper [Corkery JM]. Three of these were previously briefly described (Ghodse H, Corkery J, Oyefeso A, 2006).

No deaths relating to khat toxicity as over dose have been reported, but cases due to its toxic effects are now known. It is thought that khat produces acute myocardial infarction in some patients and triggers such events in others, leading to fatal heart attacks.

Ten out of twelve male Djibouti's treated for haemorrhagic stroke between September 2005 and march 2007 were daily consumers of khat, nine of whom also smoked (Benois A, Raynaud L, Coton T, 2009).

A clinical study of 120 Yemeni patients with myocardial infarction showed that khat chewers were three times more likely to have experienced such an event than non-chewing controls (Alkaidi Ho, Noman MA, 2002).

A multi-center study of 8176 patients presenting to hospital with acute coronary syndrome in 6 Middle Eastern countries found that 11.4% were chat chewers [mostly of Yemen origin and male]. At admission, usually more than 12 hours after onset of symptoms compared to non- khat chewers, khat consumers had higher heart rate, Killip class and global registry of acute coronary event risk scores. Khat –chewing was an independent risk factor for an in-hospital death (Ali WM, Zubaid M, 2010).

The incidence of myocardial infarction increases after chewing khat , demonstrating that it risk factor for this medical condition.

One mechanism suggested for this is the increased release of catecholamines triggered by the cathinone content of khat, leading to hypertention and acute myocardial infarction (Al-Motarreb AL, 2003).

Cathinone, and to a lesser extent cathine, appears to act on the beta-1 adrenoceptor causing increased systolic blood pressure and pulse rate. However, these effects can be prevented the use of beta –blockers such as a tenolol (Hassen NG, 2005).

Khat use is associated with acute coronary vasospasm and myocardial infarction (Al-Motarreb A, 1997)

Coronary vasospasm, induced by the cathinone in khat, causing vasoconstriction may occlude coronary arteries sufficiently to precipitate myocardial infarction. Increased thrombogenicity could also be a key factor for myocardial infarction (de Ridders S, Earensse F, Hofstra L. 2007)

Differences in diurnal patterns of acute myocardial infarction have been observed between non-khat users and khat users, with peak presentation amongst the second group shifting the second group shifting to the late afternoon and evening, coinciding with khat chewing sessions -2pm to midnight [Helbach H.1972] infarction; heavy It has been suggested that the cathinone content of khat is an independent dose-related risk factor for the development of acute myocardial infarction, heavy chewers having a 39-fold increased risk (AL- Motarreb A, 2005). The risk of myocardial infarction is also increased when the khat „session „lasts more than 4 hours.

Daily khat chewers are significantly more at risk, as are those whose use is recent and chronic. One study of found that in those suffering from a myocardial infarction, of khat use was associated with earlier age at presentation (Al-kebaim, 2002).

The np-SAD has been notified of the death of young adult Somali khat –user which was attributed by the pathologist to norephedrine levels from khat inducing left ventricular failure with development of pulmonary edema, which was regarded as mode of death (Corkery JM, 2010).

Another young Somali male who consumed khat and alcohol, and has assaulted another male, collapsed and had difficulty breathing.

Cardio-respiratory resuscitation was started but on the way to hospital by ambulance he suffered a cardiovascular event and was pronounced dead.

The positive toxicological findings for cathine, cathinone and norephedrine meant that it was not possible to attribute death to sudden adult death syndrome.

We are also aware of another, non-notified, death involving khat-induced myocardial infarction.

Khat can also produce acute myocardial infarctions by direct coronary vasoconstriction (Al-motarreb AL 2002).

Rat studies conducted by Admassie and Engdawork suggest that frequent and chronic khat consumption, may lead to transient but repetitive coronary vasoconstriction causing a reduction in blood flow and myocardial damage (Admassie E,Engdawork E.2011).

Myocardial oxygen demand is increased by increased heart rate,force of contractility and systolic tension which could not be associated with heightened levels of CK and AST even though sub-chronic khat consumption ,as these can lead to multi-organ damage.

This is in line with findings of human liver and kidney damage reported by (Champan et.al 2010). Khat induced ischemic strokes have been identified in a number of case –reports by (Bruno A.2003).

Such cardiac events can clearly lead to fatal out comes, as evidenced by a recent study in the Middle East which found that Yemen khat- chewing patients with acute coronary syndrome had higher in-hospital complications including stroke and death (AL Suwaid J.2011).

Death and haemiplgia [paralysis of half of the body] because of meningeal hemorrhages“ are reported.

The causal mechanism is raptures of a aneurisms following circulatory „“Coups de fouet““ [rapture of the Planter is muscle accompanied by sharp disabling pain] engender by the use of khat (Le Brass M.1965).

A similar reported mechanism is cerebral hemorrhagic softening has also been described, although such cases are relatively rare (Le Brass M. 1965 ) also note that when an individual’s is experienced hyperthermia caused by khat consumption, death can occur following strenuous physical effort [such as playing sport].

### **2.3.10. Cancer Related to Khat Use**

Karatotic white lesions are present in the mouths of about one- fifth of khat chewers (Ali AA, 2004). This change in pathology is recognized as pre –cancerous and may develop in to oral cancer (Goldenberg D.2004).

Buccal epithelial cells experience genotoxic effects a dose related way in khat –chewers ,this suggests that oral malignancies can be contributed to by khat (Kassie 2001; 92). Although oral

cancers due to khat chewing occur and do lead to death, there do not appear to be any published statistics on such death.

## **2.4. Sports and Recreation Perspectives of Khat**

Over four thousand years, people have been using substances to improve their physical performance and appearance. Descriptions of athletes ingesting special foods to enhance their performance dated back to ancient Greek (Cooper DL. 1972 cited in L. Sikiru, 2012). The search for methods to improve athletic achievement such as manipulation of diet, various drugs and the use of “miracle” foods can be considered wholesome as long as they are used to supplement rather than to supplant and they constitute no health hazard to the athletes and finally they are not illegal or banned by sanctioning sports bodies (Williams MH 1998, Devrise HA, Housh TJ. 1994 cited in L. Sikru, 2012).

Cathine, a secondary constituents and one of the major final by products of khat metabolism is categorized as a stimulant and its presently banned by the IOC and WADA. However, the ban on cathine is not absolute as it is in amphetamine, the IOC and WADA allow urinary concentration of Cathine up to 5micrograms per milliliter (South African Institute for Drug free Sport [online] 2006, World Anti- Doping Agency [on line] 2006 cited in L. Sikiru, 2012). Twenty four year old Kenya bantamweight boxer, David Munyasia was disqualified from the 2004 Athen Olympic (Greece), after testing positive of cathine. The boxer admitted of chewing an African weed or bangi, khat which contain the banned stimulant, nor pseudoephedrine (cathine) ( British Broadcasting corporation [News ] 2004, cited in L. Sikiru, 2012). Closely than weather a cultural incident of khat chewing is being handled appropriately.

Khat many influence athletic performance by reducing the perceived effort of exercise via its analgesic effect (Conner, et al. , Connor J, Mekonnen E, Rostom A, 2000; 52 (2) : 107 – 110, cited in L. Sikiru, 2012) investigated the effect of khat, amphetamine and ibuprofen in mice. After intragastric administration of the drugs, analysis was measured relative to water injected control using hot plate, tail flick and abdominal constriction test. At this highest dose examined (amphetamine 18mg/kg, ibuprofen 90mg/kg & khat extract 180mg/kg). All the three substances produced analgesia. They concluded that khat like amphetamine and ibuprofen can relief pain.

In recent years many reports (Toennes SW, Harder S, Schramm M, Niess C, Kavert CF, Oyungu E, Kioy PG, Patel NB 2007, Alkadi HO, Noman AM, Al – Thobhani AK, Al Mekhlafi FS, Raja'a TA 2002, cited in L. Sikiru, 2012) have been published on neuropharmacology, metabolic and biochemical changes of *Catha edulis*. Little is known about its exercise and sports performance effect. Also the few reports [Australian Broadcasting Corporation [online] 2007, Yanagita T. 1979, cited in L. Sikiru, 2012] on the ergogenic effect of khat on exercise and sports performance has been subjective and unclear and mostly on animals. However, WADA, IOC and other international sports organizations has placed a limit to cathine one of the constituents of khat. The reason for this partial ban might not be unconnected to the fact that cathinone a major constituent of khat which is finally metabolized to cathine has an amphetamine like action. But the ethical line of cheating in sport is being scrutinized more (Baasher TA, cited in L. Sikiru, 2012) Well design studies using fresh young khat leaf chewing on sports and exercise performance, with respect to WADA and IOC doping limit are needed.

## **2.5. Regulations and legislation**

### **Khat and international law**

The World Health Organization (WHO) first undertook research into the pharmacology and health implications of khat in the 1950s. The publication of its findings in 1964 led to the UN Commission of Narcotic Drugs ruling against the need for international legislation, leaving it to individual countries to decide whether health advice should be given to consumers.

Further research on the pharmacology of khat led in the 1970s to the discovery of its principal pharmacologically-active compound, cathinone. Concern over cathinone's potential abuse as an amphetamine-like drug led the WHO Expert Committee on Drug

Dependence (ECDD) to recommend its addition to the UN Convention on Psychotropic Substances in 1988 and it was then added as a Schedule I substance – meaning it was placed among those substances subject to the most stringent international restrictions. Khat's less potent principal compound, cathine, was added to Schedule III of the UN convention, a much less restrictive legal category. These moves applied only to the isolated compounds, and this move was not intended to subject khat itself to international control. Despite this, some countries have

used the scheduling of cathine and cathinone as a reason to prohibit khat. Indeed the ECDD's most recent critical review of khat (2006) affirmed that khat should not be prohibited or controlled, stating:

“The Committee reviewed the data on khat and determined that the potential for abuse and dependence is low. The level of abuse and threat to public health is not significant enough to warrant international control. Therefore, the Committee did not recommend the scheduling of khat.” (WHO, 2006)

However, recognizing, “that social and some health problems result from the excessive use of khat”, the ECDD suggested that national educational campaigns be adopted to discourage use leading to “adverse consequences”. (UN Economic and Social Council, „Resolutions Adopted by Economic and Social Council“, 11 August 1964)

## **2.6. Causes of Mental Disorder**

Every day, many people experience situations that might be described as life crises. A life crisis is a shocking experience that causes a high level of mental stress. Some people are able to make adjustments to life crises while others despair and become unable to function. Why do individuals respond such different ways to life crises? There is no simple answer. Several factors have a holistic effect on a person's response to a given situation. Such as;

- Environmental Factors
- Heredity Factors

Factors Affects the Brain. The brain is like a vast computer that controls the performance of all mental and physical functions of the body. Thoughts, emotions, memory, personality, and actions are all part of this complex human computer.

An organic mental disorder is a change in mental health status caused by a physical condition that affects the brain. Physical illnesses, such as brain tumors, strokes, brain injuries, or syphilis, can also affect brain function. A lack of oxygen caused by a near-drowning or choking can destroy some brain cells. Other factors that affect brain function are chemicals such as alcohol and marijuana. Chemicals can be taken orally, by injection, or by inhalation Meeks- Mitchell, Linda and Heit, Philip (eds.) 1987.

## 2.7. Rest and Sleep

Rest and sleep help your body rebuild itself and reenergize. While you sleep, several changes occur in your body. Your heart rate slows by about 10 to 15 beats per minute, your blood pressure decreases, and you take fewer breathes per minute. Your muscles lose tension during sleep.

Growth hormone is released in to the blood. You are actually growing while sleep and rest. Your need for sleep and the times at which you go to sleep and awaken are individual.

Each person has a natural in born energy cycle or biorhythm. Your biorhythm determines when your highest peaks of energy occur and when you feel most sluggish. Sometimes it is helpful to plan your activities around this energy cycle. When you feel sluggish, you will also want to check your diet to see if it is well-balanced. Most adolescents sleep seven to nine hours each night.

You need more sleep if you feel fatigued, or overly tired. You may feel fatigued if you have exercised strenuously or if you are under stress.

Fatigue may also result from a starvation diet, lack of sleep, or illness. Sometimes you cannot get sleep.

This is normal. But when you're in ability to get to sleep becomes a pattern, you have insomnia. Insomnia has several causes – stress being the leading one. Insomnia is one of the most frequent symptoms of depression. Eating or drinking foods and beverage high in caffeine or sugar tends to stimulate you and may cause insomnia. Eating late, consuming spicy foods and drinking alcoholic beverages are also causes. In order to this Khat have actions like caffeine due to reflect a physical complication of insomnia may be on Khat chewer active sport participants.

Following are some tips for getting good night's sleep. Select a medium-hard matter for your bed. These types of mattress will support your back. Try to keep your environment quiet or play soft, restful music (Meeks-Mitchell, Heit, Linda, Philip ( eds ), 1987 ) or the first time, we show that sleep deprivation has a negative effect on the day to day recovery of leg strength, power and sprint performance during simulated team-sports performance. Sleep deprivation also tended to have a negative effect on self-selected exercise intensities (pacing strategies). These differences in performance are not explained by differences in blood lactate, electrolytes, heart rate or core

temperature as these were similar between trials. However, we show that sleep loss retards the repletion of muscle glycogen and may be responsible for the greater decline in performance on the second day. The current findings indicate that strategies should be used to ensure adequate sleep occurs between competitive events as this could affect some aspects of athletic performance and muscle recovery. Additionally, future research should also investigate possible nutritional or other complimentary strategies that may also aid in recovery from impaired sleep.”

The above is only one select sleep study out of countless sleep studies showing that sleep deprivation has a serious negative impact on one’s athletic performance. Logic would deduct that if your performance is falling short, then you aren’t able to physically perform at an intense enough level to force your body to physically change in order to adapt and become stronger and fitter.

The SAID principle (Specific Adaptations to Imposed Demands) states that if a person is put under physical stress at intensity high enough to challenge the body’s threshold of strength or endurance that it is currently capable of dealing with, it will be forced to attempt to overcome the stress by adapting to the specifically imposed demands.

The problem with cutting back your hours of sleep to less than 8 per night is that your body is not capable of recovering the energy required to exert the amount of physical force on your body that it requires in order to adapt, according to the SAID principle. Therefore, even if you do put in as much effort as you possibly can into your workout at the gym the next it, it most likely just won’t be enough for you to see the results you desire.

Yet still there people who stay up till 3 in the morning play their video games or talking to their friends who wonder why no matter how healthy they eat and how hard they train, their body just won’t seem to change appearance (Meeks-Mitchell, Heit, Linda, Philip ( eds ), 1987).

Utilize the knowledge you have learned from the above study to make sure you are always able to squeeze in 8 hours of sleep a night. Especially while on an intense physical training regime.

## **2.8. Factors That Affecting Physical Fitness Program**

Factors that affecting physical fitness programs are stated by many scholars in different ways. Then, Percival et al (1992 ; cited in Bayissa, 2012) explained to develop safe effective, health enhancing exercise program that gaits everybody means looking at a member of factors such as

age, current health status, personal interest, personality type, finance, the climate you live in and the availability of exercise facilities and other that we need to take into account.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

In this chapter the researcher elaborates research instruments and how it is administered & the source of data to be used, how it is selected and describes the procedures to be followed in order to collect data. Since the study requires detail analysis on the place of Khat (Chat) among active sport participants. Therefore the researcher selected qualitative and quantitative (mixed) approach to find out the place of Khat (Chat) among active sport participants the case of Kaffa Zone, Bonga Town in some selected Football Clubs.

#### **3.1. Source of Data**

In this study, data from both primary and secondary sources are used to get adequate information about the place of Khat (Chat) among active sport participants the case of Kaffa Zone, Bonga town in some selected football clubs.

1. Primary Sources: Were used to get first hand information concerning the place of Khat (Chat) among active sport participants in the football clubs under study. Accordingly active sport participants, coaches, sport administrators and sport officials; non sportive community and Khat sellers are primary data sources of the study.
2. Secondary Sources: secondary data were used to support the primary data obtained from primary sources. Reviews of related literature are secondary sources.

#### **3.2. Research Design**

“Mixed methods research is the type of research in which a researcher or team of researchers combine elements of qualitative and quantitative approaches (e.g., use of quantitative and qualitative viewpoints, data collection, analysis, inference techniques) for the purpose of breadth and depth of understanding and corroboration” (Creswell,2009 & Johnson et al. 2007). Both quantitative and qualitative research approaches (mixed research approaches) were used because both approaches should be thought as complementary methods that, when taken together, provide broader options for investigating a wide range of important educational topics than either one alone (Creswell 2009). Furthermore it helps to obtain statistical, quantitative results from the

sample and then follow up with a few individuals to help explain those results in more depth and to better understand a research problem by converging (triangulating) broad numeric trends from quantitative research and the detail of qualitative research (Creswell, 2009). Accordingly a mixed research design of concurrent study in which both types of data are collected at the same time and brought together in data analysis are employed.

In this regard, quantitative & qualitative (Mixed) research design specifically descriptive research method is employed with the intension of getting the general image of the impacts of Khat (Chat) among active sport participants in some selected football clubs. This is because Descriptive Survey research involves a clearly defined problem and definite objectives (Best & Kahn 1995).

### 3.3. Population and Sampling Techniques

#### 3.3.1. Population of the Study

Kaffa Zone Comprise 6 FB clubs, these are Wushwush FB clubs, Bonga kenama, Kaffa Buna, Mankira Buna, BTVET and BCTE Foot ball clubs. Except Wushwish club, the rest are found in Bonga town. The two clubs are drop out from competition after registration these are Kaffa Buna & Bonga Kanama. In this regard, 3 Football clubs, Mankira Buna, BTVET & BCTE FB Clubs are considered for the study. The total population of the study is (50) sport participants (players); (14) sport administrators, sport officials and coaches, and (36) non-sportive participants and (3) Khat sellers. Totally 103 population participated. From these 96 are males and the rest are females.

**Table 1: Name of Clubs and number of players**

SN of Foot ball clubs	Total Number of Players"	Sample Size	%
	M		
1. Mankira Buna	25	15	60 %
2. BTVET	25	17	68 %
3. BCTE	25	18	72 %
Total	75	50	66.66%

From the 75 sport participants (targeted population), 50 of them are taken as a sample. This make the sample size to be 66.66 % and the sample technique used is simple random sampling techniques.

There are six (6) Foot ball clubs in Kaffa Zone in 2005 E.C are registered. But the two of them are drop out from competition and also Wushwush football club is out of Bong town. Out of these Foot ball Club 3- Foot ball clubs were Selected by purposive sampling technique for the study. The sample sizes of the selected foot ball clubs were 100 % of the total foot ball clubs.

There are also 20 sport officials, sport Administrator and coaches 70 % (14) were includes in simple random and purposive sampling methods. And also non-sportive sample 36 and 3 Khat sellers are includes purposively are in the study.

### **3.4. Data Collection Instruments and Procedure**

#### **3.4.1. Data Collection Instruments**

According to Creswell (2009), one advantage of mixed methods is opportunity to employ both open and close-ended questions as well as multiple forms of data collection possibilities. In this study, the instruments used to gather data are questionnaires, and structured interview and focus group discussions. Besides, observations are also carried out. With respect to this (Creswell 2009) stated that, employing multiple data collection instruments help the researcher to combine, strengthen and amend some of the inadequacies and for triangulation of the data. Accordingly, questionnaires were used as the main data gathering instruments whereas, structured interview, observation, Focus Group Discussions and review of document were used to enrich the data obtained through questionnaires.

#### **Questionnaires**

Closed and open ended types of questionnaires are used to collect relevant and first hand information from the participants of the study. The researcher preferred questionnaires as the main data gathering instrument because it is easier to handle and is simpler for respondents to answer within short period of time (Koul, 2008 cited in Girma, 2010). Besides, it allows respondents to respond to questions confidentially or anonymously; it tends to be more reliable; it encourages greater honesty; it is more economical than the interview in terms of time and money (Cohen,et al.2005).

Accordingly, one questionnaire that has three different parts with 69 items and various sub-items was prepared for sport participants & non-sportive samples. The questionnaire comprises items of personal information & items about the attitudes & knowledge impacts of Khat among active sport participants. The questionnaires contain multiple choice types, essay type & the rating scales which were prepared on five points of liker scales. Respondents were asked to rate from „Strongly Agree“ to „Strongly Disagree“ against each item.

The questionnaire are prepared in English by the researcher after a thorough review of related literatures and distributed for sport participants and non- sportive samples it is translated in Amharic language.

**Table 2: Administered Questionnaires**

S.N	Category of Respondents“	Questionnaires Handed out	Questionnaires returned	Difference
1	Active sport participants	50 (100 %)	50 (100 %)	0 %
2	Non sportive sample	36 (100 %)	36 (100 %)	0 %
3	Total	86 (100 % )	86 (100 % )	0 %

### **Interview**

The response rate and flexibility in face-to-face interview is too high & to extract further information. Hence, structured interview guides are prepared for khat sellers. In order to verify and cross-check the responses made some of the inadequacies and for triangulation of the data. Accordingly, questionnaires were used as the main data gathering instruments whereas, structured interview, Focus Group Discussions and review of document are used to enrich the data obtained through questionnaires.

### **Observation**

Observation of the real condition is very important in the study in order to conform information obtained from other data collection instruments and for the aim of cross checking the responses to the existing reality. The researcher while conducting the observation on had observation guide are arranged and the check list are also presented so as to record the situation of the setting and the cases in the study as well (for observation & check list see in table 15)

## **Focus Group Discussion**

There are different circumstances for which this method of data collection can be applied. There is even possibility that distorted information might be fetched through interviews and questionnaires" from individual informants who are not feel comfortable to " expose" genuine information about some sensitive identity issues. When they work in group, it is possible to generate more reliable, accurate, and complete information through group cooperation. The selection of participants in the focused group discussion is follow heterogeneous group. Heterogeneously, informants of different background or different opinions, and the like are placed together in order to arrive on a common representation of certain debatable issue. These group discussions are prepared for coaches, sport officials and sport administrators.

### **3.4.2. Procedures of Data Collection**

The data gathering instruments are reviewed by the advisors of the researcher in order to make essential correction and maintain their validity before the final study is conducted. This helps the researcher to avoid errors likely to happen the questionnaires, interviewed; observation and group discussion have been tried out in active sport participants, Khat sellers, non-sportive sample and sport officials and administrators. Respondents are pre informed and oriented about the objective of the study. For avoid the difficulty and confusion from questionnaires. Although , at the time of distributed the questionnaire the researcher is explained the purpose of the study to respondents and giving freedom for the respondents to ask unclear questions when they are facing difficulties , then supervise with close to avoid cheating and collecting the questionnaire when they are finish answering to the question.

### **3.5. Methods of Data Analysis**

This study used both qualitative and quantitative (mixed) research approach. Therefore, the data obtained through questionnaire are analyzed quantitatively. For quantitative analysis percentage and number are employed. The data collected through interview, group discussion, observation & check list are analyzed qualitatively to substantiate the quantitative analysis. The collected data are sorted out, organized and synthesized so that meaningful results of the study are obtained and conclusions are also been made based on the interpreted data. Thus, information

obtained through close- ended questions are tallied and put in to numbers (percentage). This helps the researcher to use tables for interpretations.

Then cross-check are made through information which are collected with observation in order to triangulate the data collected through questionnaire, group discussion, interview. Finally, the report are organized and written by using verbal descriptions supported by percentages or numbers of the respondents from the tables, provided for a particular items or questions.

## **CHAPTER FOUR**

### **PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA**

In this chapter, the results of the study about the impacts of Khat among active sport participants are presented. The Characteristics of the respondents, the attitude and knowledge of respondents and the impact of chewing Khat on active sport participant towards Psychological, physiological, sociological and sport development are analyzed.

#### **4.1. Background and Analysis of the Respondents**

The target groups of this study are sport participant, sport officials and administrators, coaches, non-sportive samples (spectators) and Khat sellers. The data obtained regarding the characteristics of each respondent are presented in the following three consecutive tables below.

**Table 3: General Characteristics of respondents of foot ball players.**

S.N	Items	Specification	Clubs						Total	
			Mankira Buna		Bonga TVET		Bonga C T E			
			No	%	No	%	No	%	No	%
1	Sex	Male	15	100%	17	100%	18	100%	50	100%
		Female	-	-	-	-	-	-	-	-
		Total	15	100%	17	100%	18	100%	50	100%
2	Age	15-20	14	93.33%	9	52.94%	8	44.44%	31	62%
		21-25	1	6.67%	8	47.06%	10	55.56%	19	38%
		26-30	-	-	-	-	-	-	-	-
		Above 30	-	-	-	-	-	-	-	-
		Total	15	100%	17	100%	18	100%	50	100%
3	Height	150cm – 160cm	7	46.66%	1	5.88%	3	16.66%	11	22%
		161cm – 170cm	7	46.66%	10	58.82%	11	61.11%	28	56%
		Above 170cm	1	6.67%	6	35.29%	4	22.22%	11	22%
		Total	15	100%	17	100%	18	100%	50	100%
4	Weight	50-60 kg	6	40%	3	17.64%	4	22.22%	13	26%
		61-70kg	8	53.33%	7	41.17%	11	61.11%	26	52%
		Above 70kg	1	6.67%	7	41.17%	3	16.67%	11	22%
		Total	15	-	17	100%	18	100%	50	100%
5	Marital Status	Married	-	-	-	-	-	-	-	-
		Unmarried	15	100%	17	100%	18	100%	50	100%
		Divorced	-	-	-	-	-	-	-	-
		Widowed	-	-	-	-	-	-	-	-
		Total	15	100%	17	100%	18	100%	50	100%
6	Experience on Sport	1-5years	12	80%	15	88.23%	10	55.55%	37	74%
		6-10years	3	20%	2	11.77%	8	45.45%	13	26%
		11-15years	-	-	-	-	-	-	-	-
		Above 16 years	-	-	-	-	-	-	-	-
		Total	15	100%	17	100%	18	100%	50	100%
7	Educational level	8-10	7	46.67%	-	-	-	-	7	14%
		10+3	8	53.33%	-	-	18	100%	26	52%
		Level 3 /4	-	-	17	100%	-	-	17	34%
		12+3	-	-	-	-	-	-	-	-
		Total	15	100%	17	100%	18	100%	50	100%

As shown in the table 3 above, almost all (100%) of the respondents are male. This shows that women’s are not considered as a player in football club around Bonga town. As far as the

participants' age is concerned, about 62 % (31) of the respondents are 15-20 and the remaining 19 (38%) respondents are 20-25 years. That is to say, all of the sport participants are young and able to participate in every sport activities.

Regarding the participants' age the research samples are aged between 15 and 30 years. However the ages of Mankira Buna club members are lower than the other two. About In item 3 concerning the height of the sport participants' 22% (11) are between 150 cm and 160 cm, 56% (28) are between 160 cm and 170 cm. And the rest 22% (11) are height above 170 cm. regarding the weight of the players in item 4, 26% (13) of the players' weight between 50 kg and 60 kg, 52% (26) weight between 60 kg and 70 kg. And the remaining 22% (11) of the sport participants weight above 70 kg. The majority of the players have a normal distribution of the height and relative age group, which are not hinder to play football.

Item 5, regarding marital status all 50 players are unmarried. This is because most players are at the school ages that are living with their family. About experience on sport participation in item 6, 74% (37) of them have an experience between 1 to 5 years and the remaining 26 % (13) have an experience between 6 to 10 years. This indicates that most sport players had low experience in sport participation.

Concerning Educational level of sport participant one of the selected foot ball clubs (Mankira Buna club) members had educational level between grade 8 and grade 10 which is about 46.67% (7) and the rest 53.33% (8) are students of 10 + 3 at Bonga College of Teachers Education . Since the other two clubs members are students of the colleges, Bonga TVET club members had joined training on level 3 and level 4 programs, and the Bonga CTE club members are joined 10 + 3 teaching programs.



**Figure 1: BCTE Football Club**



**Figure 2: BTVET Football Club**



**Figure 3: Mankira Buna Football Club Photo by the research assistant**

**Table 4: General Characteristics of respondents' of Sport officials, Coaches and Administrators**

S.N	Items	Specification	Respondents							
			Sport officials		Administrators		Coaches		Total	
			No	%	No	%	No	%	No	%
1	Sex	Male	6	100%	5	100%	3	100%	14	100%
		Female	-	-	-	-	-	-	-	-
		Total	6	100%	5	100%	3	100%	14	100%
2	Age	20-30	2	33.33%	1	20%	-	-	3	21.43%
		31-40	3	50%	1	20%	3	100%	7	50%
		41-50	1	16.67%	3	60%	-	-	4	28.57%
		Above 50	-	-	-	-	-	-	-	-
		Total	6	100%	5	100%	3	100%	14	100%
3	Educational Status	11 – 12	1	16.67%	-	-	-	-	1	7.14%
		10+1	1	16.67%	1	20%	-	-	2	14.28%
		10+2	-	-	-	-	-	-	-	-
		10+3	3	50%	1	20%	3	100%	7	50%
		12+3	1	16.67%	3	60%	-	-	4	28.57%
		Total	6	100%	5	100%	3	100%	14	100%
4	Marital Status	Married	5	83.33%	5	100%	2	66.67%	12	85.71%
		Unmarried	1	16.67%	-	-	1	33.33%	2	14.29%
		Divorced	-	-	-	-	-	-	-	-
		Widowed	-	-	-	-	-	-	-	-
		Total	6	100%	5	100%	3	100%	14	100%
5	Experience	1-5years	4	66.67%	1	20%	3	100%	8	57.14%
		6-10years	2	33.33%	-	-	-	-	2	14.29%
		11-15Years	-	-	3	60%	-	-	3	21.43%
		Above 15	-	-	1	20%	-	-	1	7.14%
		Total	6	100%	5	100%	3	100%	14	100%

In item 1(table 4), regarding the sex of Sport officials, Coaches & Administrators all 14 sample respondents are male. This implies every Sport activities in Bonga Town are dominated by males.

Item 2, Concerning the age of Sport officials, Coaches & Administrators 21.43% (3) are between 20 and 30years, 50% (7) are between 31 and 40 years and the remaining 28.57% (4) are between 41 and 50 years. From these one can see that most of the Sport officials, Coaches and Administrators are matured enough to manage and control the activities of sport.

Item 3, about the educational status of Sport officials, Coaches & Administrators, from the total of 6 Sport officials, 50 % (3) are graduates of 10+3 /diploma/, the remaining three each are between 11 & 12 grade, 10+1 certificate and 12+3 graduates. This shows most sport officials have enough knowledge to lead the activities of sport. Looking the educational status of Bonga town sport administrators 60% (3) are graduates of Bachelor degree, 20% (1) is graduate of 10+1 and the remaining 20% (1) is graduate of 10+3/ diploma/. Hence all sport administrators have minimum educational level are literate to guide and lead the activities of sport in the selected study area. Regarding the educational back ground of the coaches of the selected clubs; all the three coaches are graduates of 10+3. Even though they are a graduate of diploma their specialization is not related to the foot ball coaching. One of the coaches is a graduate of automotive engine service, the other is graduates of esthetics, and the remaining one is graduates of accounting. This indicates that all coaches of the three clubs are not leading their clubs in a foot ball coaching science.

Regarding marital status of Sport officials, Coaches& Administrators 85.71 % (12) had married and the remaining 14.29% (2) are unmarried. Hence the majority of Sport officials, Coaches & Administrators hold the household responsibilities. This helps them to give enough advice and encouragement for sport participants”.

Item5, regarding the experience of Sport officials, coaches & administrators 66.67% (4) of Sport officials had an experience between 1 to 5 years and 33.33 % (2) had an experience between 6 to 10 years. About the experience of sport administrators 60% (3) had an experience between 10 to 15years, 20% (1) had an experience between 1 to 5 years and the rest 20% (1) had an experience above 15 years. Finally concerning the experience of coaches all had an experience between 1 to 5 years. Therefore the service year/experience of most sport officials and coaches had less

experience and little knowledge on handling and leading the sport activities and their clubs respectively.

**Table 5: General Characteristics of respondents of Non- Sportive Participants' (Spectators)**

S.N	Items	Specifications	Spectators	
			No	%
1	Sex	Male	29	80.55%
		Female	7	19.45%
		Total	36	100%
2	Age	20-30	12	33.33%
		31-40	13	36.11%
		41-50	9	25%
		Above 50	-	-
		Total	36	100%
3	Marital Status	Married	20	55.55%
		Unmarried	16	44.45%
		Divorced	-	-
		Widowed	-	-
		Total	36	100%
4	Experience on Sport	1-5 Years	17	47.22%
		6-10 Years	12	33.33%
		11-15Years	6	16.67%
		Above 15Years	1	2.77%
		Total	36	100%
5	Employment type	Government employed	11	30.55%
		Self employed	12	33.33%
		Student	8	22.22%
		Un employed	5	13.88%
		Total	36	100%

Regarding the Characteristics of Sample respondents of Non- Sportive participants" / Spectators/ in table 5, Item 1 concerning the sex of Non- Sportive Community 80.55 % (29) is males and the remaining 19.45% (7) are females. Hence the less number of females Spectators shows that their participation is small in the activities of sport.

Item 2 of table 3 above, Regarding the age of Non- Sportive participants (Spectators) 33.33% (12) are age between 20to 30 years, 36.11% (13) were age between 31 to 40 years and the remaining 25% (9) are age between 41 to 50 years. From these it is possible to suggest that the

age difference among Non- Sportive participants (Spectators) does not matter for their enjoying the sport activities.

Item 3 regarding marital status of Non- Sportive participants (Spectators) 55.55% (20) were married, 44.45% (16) are unmarried. This indicates that in Bonga town both married and unmarried non sportive participants were enjoying in sport activities.

Non- Sportive Participants" (Spectators) are also asked their experience in enjoying in sport activities. To this item 47.22%(17) had an experience between 1 to 5 years, 33.33% (12) had an experience between 6 to 10 years, 16.67% (6) had an experience between 11 to 15 years and the remaining 2.77% ( 1) had an experience above 15 years.

Item 6 regarding employment type of Non- Sportive participants (Spectators) 30.55% (11) are governmental employed, 33.33% (12) are self employed, 22.22% (8) are student and 13.88% (5) are unemployed. This indicates that all type of community members are spectators in sport activities.

## **4.2. Attitude and Knowledge of Respondents**

This section describes the analysis of attitudes of sport participants, sport officials and administrators, coaches, non-sportive samples (spectators).

### 4.2.1. Attitude & Knowledge of Sport Participants'

**Table 6: Attitudes and knowledge of sport participants on chewing Khat**

S.N	Items	Specification	Mankira Buna		Bonga TVET		Bonga CTE		Total	
			No	%	No	%	No	%	No	%
1	Do you chew Khat?	Yes	2	13.33%	7	41.17%	7	38.88%	16	32%
		No	12	80%	9	52.94%	9	50%	30	60%
		Sometimes	1	6.67%	1	5.88%	2	11.11%	4	8%
		Total	15	100%	17	100%	18	100%	50	100%
2	Usually when do you chew khat?	Before training	1	6.67%	3	17.64%	5	27.77%	9	18%
		After training	2	13.33%	4	23.52%	2	11.11%	8	16%
		On both	-	-	1	5.88%	2	11.11%	3	6%
		I didn't use	12	80%	9	52.94%	9	50%	30	60%
		Total	15	100%	17	100%	18	100%	50	100%
3	Do you know the impacts of chewing Khat on athletes?	Yes	10	66.67%	11	64.70%	12	66.67%	33	66%
		No	3	20%	5	29.41%	6	33.33%	14	28%
		I don't know	2	13.33%	1	5.88%	-	-	3	6%
		Total	15	100%	17	100%	18	100%	50	100%
4	Is there disciplinary rule & regulations in your clubs about chewing Khat?	Yes	-	-	-	-	-	-	-	-
		No	12	80%	14	82.36%	16	88.78%	42	84%
		I don't know	3	20%	3	17.64%	2	11.11%	8	16%
		Total	15	100%	17	100%	18	100%	50	100%
5	Do you know the impacts of shisha (water pipe smoking)?	Yes	11	73.33%	13	-	12	66.67%	36	72%
		No	-	-	3	17.64%	4	22.22%	7	14%
		I don't know	4	26.67%	1	5.88%	2	11.11%	7	14%
		Total	15	100%	17	100%	18	100%	50	100%

Regarding attitude and knowledge of sport participants on chewing Khat in table 6

Item 1, regarding prevalence of Khat chewing by sport participants, In table( 6) above 32% (16) of respondents used to chew Khat frequently, 8% (4) used sometimes and the remaining 60% (30) of the sample respond that they were not used it. From these we can conclude that

40% (20) of sport participants of the selected three clubs used chewing Khat. And 60% (30) of respondents had never having used it.

In item 2, concerning the time of chewing Khat 18% (9) of the chewer used chewing Khat before training, 16% (8) used after training and 6% (3) used both before and after training.

In item 3, about the knowledge of sport participants on the impact of chewing Khat, 66% (33) of the sample responded that they know the negative impacts of chewing Khat on athletes, 28% (14) of the respondents said no impact and 6% (3) of them respond that they have no knowledge about the impacts of chewing Khat on sport participants. This implies that most of the respondents believed that chewing Khat has a negative impact on active sport participants.

Regarding item 4, on practicing disciplinary rules and regulations about chewing Khat, 88% (42) of the sample said no rules and the rest 12% (8) said they know nothing whether the clubs has a disciplinary rules and regulations or not. Therefore the absence of rules & regulations in a club on chewing Khat gave a chance for the player to use Khat.

Item 5 About the impacts of Shisha (water pipe smoking) 72% (36) of the overall sample replied that it had impact on sport participants, 14% (7) said had no impact & 14% (7) respond that they know nothing whether Shisha (water pipe smoking) had an impacts on sport participants. This indicates that most sport participants had knowledge on impacts of Shisha (water pipe smoking).

### **Q1: why do you chew Khat?**

In previous studies done by others, the use of Khat has been observed with results of: low mood, stimulant, enjoying, common pastime, and through ceremonial purposes.

Regarding this item majority of 40 % (20) Chat chewer foot ball players respond the following reasons for their chewing of Khat? Some of them said that they use as a recreational purpose, for studying purpose, stimulant purpose, gambling, discussing & enjoying with friends for a long duration of time and searching of a nice mood.

### **Q2: If you are not chewing, Why not?**

60 % (30) players who are not chat chewer responded the following answer.

They said to become strong in sport performance and protect themselves from addiction. To keep a good health care, because of family domination and most non Khat Chewers also said that Chewing of Khat results economical crises & lack of positive Social acceptance and believe addiction of Khat result in mind disorder. Regarding this (Kalix and Braenden, 1985)

Intoxication with Khat is self- limiting, but chronic consumption can lead to impairment of mental and mental deterioration.

#### **4.2.2. Attitude and knowledge of Sport officials, Administrators & Coaches**

In focus group discussion with Sport officials, Administrators & Coaches were asked to respond on attitude and knowledge of Khat chewing by sport participants. Their response is analyzed below.

Q1. Do Bonga Town foot ball players chew Khat?

For this item the respondent said foot ball players of Bonga town chew Khat.

Q2. What are reasons of players for chewing Khat?

The sport officials, administrators & Coaches are responded the following reasons on chewing of Khat by sport players.

- Lack of available recreational place in the selected study town
- Lack of Gymnasium and sport arena.
- Influence of friends who are addicted by Khat
- Lack of attention towards sport activity by concerned bodies.
- Most sport players do not have their own work or they are not employed. Due to this they use Khat just for taking for pastime.
- Lack of understanding towards the impacts of Khat.
- Using Khat for gambling purpose.

Q3. How many Players do chew Khat in one club?

In this item all of the respondents concluded that most foot ball players of selected club chew Khat.

Q4: What kinds of measure are taken when the players chew Khat?

Regarding this item the Sport officials, Administrators & Coaches mostly replied that they gave an advice for chewer about the negative impact of Khat in relation with sport activity & Health care. In addition a few respondents said that they took punishment like missing from competition or training.

#### **4.2.3. Attitude and knowledge of Non – Sportive sample (participants') towards Khat**

Bonga town Non - sportive sample (participants) were also asked on the attitude of chewing Khat. Their response is analyzed below.

One of the items raised for non sportive community is whether foot ball players chew Khat or not. To this item all respondents said that the players used Khat. In addition to this they were asked reasons for chewing of Khat, regarding this they replied players chew Khat because of shortage of computational schedule, Influence of friends, the shortage of recreational places (entertainment locations) such as, play theater, movie theater, gymnasium, public gardens and park in town and they are not fully interested in their participations of sport and for the desire of alertness.

The Doping methods to cool stimulant after chewing Khat by a player are asked for non sportive community. They replied methods such as drinking alcohol, smoking cigarettes, smoking shisha, drinking hot drink and sexual intercourse.

Regarding the methods to hinder chewing Khat the non sportive samples replied creating recreational place, emphasizing sport business or sport industries, teaching on the impact of chewing Khat to sport participants, supporting foot ball by specialized (qualified) coaches, concrete sport activities widely.

The non sportive participants are asked the place where Khat players used to chew Khat. They replied as some used on coffee house, film houses, shisha house, in stadium, in the forest and in friends or Khat house.



**Figure 4: This photo was captured by the time the persons were chewing chat (Khat) at the stadium**

Photo: by the researcher



**Figure 5: This photo depicts the process of data distributing and collecting, photo by the research assistant**

### **4.3. Impact of Chewing Khat on Sport Participants**

This part of presentation and analysis of data was devoted to the discussion of the data gathered from respondents on impact of chewing Khat. Specifically Psychological, Sociological, Physiological and impacts on the development of sport are analyzed carefully.

### 4.3.1. Psychological Impact of Chewing Khat on sport participants

**Table 7: Items related with Psychological impacts of chewing Khat**

No	Items	Clubs	Specification											
			Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree		Total	
			No	%	No	%	No	%	No	%	No	%	No	%
1	numbness of players	Mankira	10	66.67%	2	13.33%	1	6.66%	2	13.33%	-	-	15	100%
		Bonga TVET	8	47%	4	23.52%	1	5.8%	4	23.52%	-	-	17	100%
		Bonga CTE	7	38.88%	5	27.77%	3	16.67%	2	11.11%	1	5.5%	18	100%
		Total	25	50%	11	22%	5	10%	8	16%	1	2%	50	100%
2	Lazy	Mankira	8	53.33%	2	13.33%	3	20%	1	6.67%	1	6.67%	15	100%
		Bonga TVET	8	47%	4	23.52%	1	5.8%	3	16.67%	1	5.8%	17	100%
		Bonga CTE	9	50%	4	22.22%	2	11.11%	2	11.11%	1	5.56%	18	100%
		Total	25	50%	10	20%	6	12%	6	12%	3	6%	50	100%
3	Hopeless of players	Mankira	7	46.67%	4	26.67%	3	20%	1	6.67%	-	-	15	100%
		Bonga TVET	7	41.17%	4	23.52%	3	17.64%	2	11.76%	1	5.88%	17	100%
		Bonga CTE	6	33.33%	7	38.88%	2	11.11%	2	11.11%	1	5.55%	18	100%
		Total	20	40%	15	30%	8	16%	5	10%	2	4%	50	100%
4	Lack of adequate sleep	Mankira	6	40%	6	40%	1	6.67%	1	6.67%	1	6.67%	15	100%
		Bonga TVET	7	41.17%	5	29.41%	3	17.64%	1	5.88%	1	5.88%	17	100%
		Bonga CTE	6	33.33%	5	27.77%	3	16.66%	2	11.11%	2	11.11%	18	100%
		Total	19	38%	16	32%	7	14%	4	8%	4	8%	50	100%
5	stress of players	Mankira	6	40%	5	33.33%	2	13.33%	1	6.67%	1	6.67%	15	100%
		Bonga TVET	6	35.29%	4	23.52%	3	17.64%	3	17.64%	1	5.88%	17	100%
		Bonga CTE	8	47%	3	16.67%	2	11.11%	3	16.67%	2	11.11%	18	100%
		Total	20	40%	12	24%	7	14%	7	14%	4	8%	50	100%
6	Lack of appetite	Mankira	5	33.33%	3	20%	5	33.33%	1	6.67%	1	6.67%	15	100%
		Bonga TVET	5	29.41%	3	17.64%	3	17.64%	3	17.64%	3	17.64%	17	100%
		Bonga CTE	6	33.33%	4	22.22%	2	11.11%	4	22.22%	2	11.11%	18	100%
		Total	16	32%	10	20%	10	20%	8	16%	6	12%	50	100%

In the above table 7 on psychological impact of chewing Khat, Item 1 concerning numbness of players

50 % (25) of the total player strongly agree, 22% (11) agreed that chewing Khat results numbness. 10 % (5) of the respondent said undecided. In contradict to these 16% (8) of the respondent disagree and the remaining 2% (1) of the respondent strongly disagree the case that chewing Khat result on numbness.

Item2 Concerning Lazy of players, 50% (25) of the sample were responded strongly agree, 20% (10) are agree, 12% (6) undecided, 12% (6) are disagree and 6% (3) strongly disagree on the case where chewing Khat causes a Liaises- fair. These imply that more than half of the sport participant believed that chewing Khat results Lazy.

Item3 about hopeless of players, 40% (20) strongly agree, 30% (15) agree, 16% (8) undecided , 10% (5) disagree and 2% (4) strongly disagree on the case where chewing Khat results hopeless on sport players.

In item 4, regarding lack of adequate sleep due to chewing Khat 38% (19) of the respondent strongly agree, 32 % (16) of them agree, 14% (7) of them undecided, 8% (4) disagree and the remaining 8% (4) said strongly disagree on the impact of chewing Khat towards sleep. This indicated that most of the respondent said that chewing Khat caused lack of adequate sleep/ insomnia. Hence sleep deprivation has a serious negative impact on one's athletic performance.

Item 5, Regarding stress of players towards chewing Khat, 40% (20) respondents said strongly agree, 24% (12) said agree, 14% (7) replied undecided, 14% (7) disagree and 8% (4) strongly disagree whether chewing a Khat causes stress on sport participants.

Item 6, Regarding Lack of appetite, 32% (16) strongly agree, 20% (10) agree 20% (10) undecided, 16% (8) disagree and 12% (6) strongly disagree on impact of chewing Khat and appetite of sport participant. Good nutrition is an important component of any successful training program. Food is the fuel of athletic performance. Hence to have a good appetite sport participants had better not to chew Khat.

**Table 8: Psychological impacts of Chewing Khat on sport participant**

S.N	Items	Specification	Mankira		Bonga		Bonga CTE		Total	
			Buna		TVET					
			No	%	No	%	No	%	No	%
1	What are your feelings during training & competition after chewing Khat?	numbness	1	33.33%	2	25%	2	22.22%	5	25%
		Tiredness	-	-	1	12.5%	1	11.11%	2	10%
		Alertness	2	66.67%	5	62.5%	6	66.67%	13	65%
		Total	3	100%	8	100%	9	100%	20	100%
2	Do you get An adequate sleep after chewing khat?	Yes	-	-	1	12.5%	2	22.22%	3	15%
		To some extent	-	-	2	25%	1	11.11%	3	15%
		No	3	100%	5	62.5%	6	66.67%	14	70%
		Total	3	100%	8	100%	9	100%	20	100%
3	How is your appetite after chewing Khat?	Very High	-	-	1	12.5%	1	11.11%	2	10%
		High	-	-	-	-	1	11.11%	1	5%
		Good	3	100%	6	75%	6	66.67%	15	75%
		I do not have	-	-	1	12.5%	1	11.11%	2	10%
		Total	3	100%	8	100%	9	100%	20	100%
4	What is your behavior during training or competition after chewing Khat?	Irritability	1	33.33%	2	25%	3	33.33%	11	55%
		Numbness	1	33.33%	4	50%	2	22.22%	7	35%
		Silent	-	-	-	-	-	-	-	-
		Lack of Initiation	1	33.33%	2	25%	4	44.45%	2	10%
		Total	3	100%	8	100%	9	100%	20	100%

Generally respondents did not self – report problems caused by Khat chewing. However item 1 regarding the feeling of sport players during training after chewing Khat, 25% (5) of chewer feels numbness, 10 % (2) feels tiredness and 65% (13) feels alertness. From these one can see that Khat chewer sport participants believed that chewing Khat give alertness during training & competition. This result support the previous research enlightened Khat chewers report increased levels of energy, alertness, sensation of elation, self – esteem enhanced imaginative ability and capacity to associate ideas when chewing. (Pantlis, C, C.G Hindler and J.C Tayler, 1989).

Item 2, Khat chewer sport participant were also asked to respond whether they got adequate sleep after chewing of Khat. To this item 15% (3) of the respondent replied that they got adequate sleep, 15% (3) respond sometimes and 70% (15) of the respondent said that they have sleep problem when they chew Khat.

Item 3 regarding the appetite of Khat chewer player, 10% (2) have good appetite, 10% (2) have a very high appetite after chewing, and 5% (1) have high appetite and 75% (15) losses their appetite after chewing Khat.

In Item 4, Khat chewer sport player gave the following response regarding their behavior during training or competition when they participate after chewing of Khat. To this 55% (11) of them behave irritability, 35% (7) of them behave numbness, and the remaining 10% (2) feels lack of initiation.

(Yousef et-al., 1995) describe the minor reactions of Khat are included over –talkativeness, over activity, insomnia, anxiety, irritability, agitations and aggression.

In an open ended questions Non sportive participants were asked on psychological impact of Khat chewing. They were asked on the behavior of Khat chewer player during competition and out of competition. Their response is summarized as during competition they behave made conflict, show lack of tolerance, Numbness, aggressiveness, disrespecting of coaches, Team mate, and referee. One of the respondents replied that chewing Khat does not have effect both during and out of competition. Concerning out of competition Khat Chewer player was not respecting the society.

### 4.3.2. Sociological Impacts of Chewing Khat

**Table 9: Sociological impacts of chewing Khat on Sport Participants'**

S. N	Items	Clubs	Specification											
			Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree		Total	
			No	%	No	%	No	%	No	%	No	%	No	%
1	Lack of inter relation with other players	Mankira	6	40%	3	20%	2	13.33%	2	13.33%	2	13.33%	15	100%
		BTVET	5	29.41%	2	11.76%	3	17.64%	4	23.52%	3	17.64%	17	100%
		BCTE	5	27.77%	5	27.77%	3	16.66%	3	16.66%	2	11.11%	18	100%
		Total	16	32%	10	20%	8	16%	9	18%	7	14%	50	100%
2	Decline of training & Competition	Mankira	7	46.66%	4	26.66%	2	13.33%	1	6.67%	1	6.67%	15	100%
		BTVET	4	23.52%	4	23.52%	3	17.64%	4	23.52%	2	11.76%	17	100%
		BCTE	5	27.77%	6	33.33%	2	11.11%	3	16.66%	2	11.11%	18	100%
		Total	16	32%	14	28%	7	14%	8	16%	5	10%	50	100%
3	Disagreement with coaches & Sport administrators	Mankira	8	53.33%	3	20%	1	6.67%	2	13.33%	1	6.67%	15	100%
		BTVET	6	35.29%	3	17.64%	3	17.64%	3	17.64%	2	11.76%	17	100%
		BCTE	5	27.77%	5	27.77%	4	22.22%	2	11.11%	2	11.11%	18	100%
		Total	19	38%	11	22%	8	16%	7	14%	5	10%	50	100%
4	Lack of acceptance from the society	Mankira	5	33.33%	5	33.33%	3	20%	1	6.67%	1	6.67%	15	100%
		BTVET	5	29.41%	4	23.52%	3	17.64%	4	23.52%	1	5.88%	17	100%
		BCTE	6	33.33%	3	33.33%	4	22.22%	4	22.22%	1	5.55%	18	100%
		Total	16	32%	12	24%	10	20%	9	18%	3	6%	50	100%
5	Showing a manner of addictiveness	Mankira	7	46.66%	4	26.66%	2	13.33%	2	13.33%	-	-	15	100%
		BTVET	7	41.17%	4	23.52%	3	17.64%	2	11.76%	1	5.58%	17	100%
		BCTE	8	44.44%	3	16.66%	2	11.11%	3	16.66%	2	11.11%	18	100%
		Total	22	44%	11	22%	7	14%	7	14%	3	6%	50	100%
6	Economical crises	Mankira	8	53.33%	6	40%	1	6.67%	-	-	-	-	15	100%
		BTVET	9	52.94%	8	47.05%	-	-	-	-	-	-	17	100%
		BCTE	8	44.44%	8	44.44%	1	5.55%	-	-	1	5.55%	18	100%
		Total	25	50%	22	44%	2	4%	-	-	1	2%	50	100%

Item 1 , concerning lack of relations with other player due to chewing Khat, 32% (16) strongly agree, 20% (10) agree 16% (8) undecided, (9%) 18 disagree and 14% (7) of the respondents strongly disagree on lack of inter relation between players. This indicates that most players depart from their team.

Item 2, regarding decline of training competition on players because of chewing Khat 32% (16) strongly agree, 28% (14) agree, 14% (7) undecided, 16% (8) disagree and 10% (5) strongly disagree the reason. This implies that most sport players lead to decline training and competition effort because of chewing Khat.

Item 3 regarding the disagreements of sport players with coaches & sport administrators due to chewing Khat, 38% (19) strongly agree, 22% (11) agree, 16% (8) undecided, 14% (7) disagree, 10% (5) strongly disagree. This indicates that large number of respondents said that chewing of Khat by sport participant leads to the disagreements of coaches and sport administrators.

In item 4 of table 6, regarding the lack of acceptance by the society on chewing Khat, 32% (16) strongly agree, 24% (12) agree, 20% (10) undecided, 18% (9) disagree and 6% (3) strongly disagree.

Concerning manner of addictiveness of Khat chewing in item 5, 44% (22) strongly agree, 22% (11) agree, 14% (7) undecided, 14% (7) disagree and 6% (3) strongly disagree. From these responses we can conclude that most Khat chewers behave addictiveness.

Item 6 regarding economical crises due to chewing of khat, 50% (25) strongly agree, 44% (22) agree, 4% (2) undecided and the remaining 2% (1) strongly disagree the reasons. These indicate that almost all of the respondents believe that chewing of khat results economical crises. In the study town the price of a Khat is very expensive and costs a minimum of birr 30.

In short Chewing of Khat has posed a serious threat to the user, the family, the community, and society as a whole. According to (Alem and Shibre, 1997), has reported a relationship between Khat Chewing with economic frustration and boredom.

The Sport participants are also asked to respond concerning the recreational area and the view of the community towards Khat Chewer. The items concerning this idea are summarized in the following table.

**Table 10: Sociological impacts of chewing Khat on Sport Participants'**

S.N	Items	Specification	Mankira Buna		Bonga TVET		Bonga TTC		Total	
			No	%	No	%	No	%	No	%
1	Have you got an available recreational place after training?	Yes	3	20%	4	23.52%	4	22.22%	11	22%
		No	10	66.67%	11	64.70%	11	61.11%	32	64%
		Have, but related with Khat chewing	2	13.33%	2	11.76%	3	16.67%	7	14%
		Total	15	100%	17	100%	18	100%	50	100%
2	What are the views of community towards Khat chewing?	Encouraging	1	6.67%	2	11.76%	1	5.55%	4	8%
		Bad habit	7	46.67%	6	35.29%	14	77.77%	27	54%
		Not considerable	7	46.67%	9	52.94%	3	16.67%	19	38%
		Total	15	100%	17	100%	18	100%	50	100%

As shown in the table 10 above, item 1 regarding availability of recreational place in Bonga Town sport participant is asked. Hence 22% (11) had respond Bonga town has an available recreational place, 64% (32) replied no recreational place at all and the rest 14% (7) said that the recreational place in Bonga Town is related with chewing of Khat. Hence the shortage of recreational place push sport participant to chew Khat.

Item 2 concerning the community views towards chewing Khat, 54% (27) responded that Chewing Khat are taken as bad Habit, 38% (19) said not considerable and the remaining 8% said that chewing of Khat were encouraging activity in the study area.

Non - sportive samples are asked on factors that hinder to have recreational place in the study town. They replied that one of the recreational place built by the woreda government is very far from the town. The other reason is lack in good governance of the study area, lack of understanding of sport missions by concerning bodies, Lack of initiation for changes. The

measures that can be taken on increasing recreational place were asked. To this the respondents suggest that it needs the support by the participation of government, Society Non -governmental organization and participating young people.

Non sportive communities (participants) were also asked on the amount of money per month spend for chewing of Khat. Their response to this item ranged from Birr 200 to Birr 1000.

### **4.3.3. Attitude of Sport Participants on the Physiological Impacts of Chewing Khat**

This section examines the types of problems that respondents (sport participants) associated with Khat use. It includes perceived health problems such as problems with heart, gastrointestinal, respiratory, kidney, liver and sexual problems.

**Table 11: Physiological impacts on chewing Khat on sport participants**

s.n	Items Do you think chewing khat has impact on:-	Clubs	Specification											
			Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree		Total	
			No	%	No	%	No	%	No	%	No	%	No	%
1	Heart Problem	Mankira	6	40%	5	33.33%	2	13.33%	1	6.67%	1	6.67%	15	100%
		Bonga TVET	8	47.05%	1	5.88%	3	17.64%	2	11.76%	3	17.64%	17	100%
		Bonga TTC	6	33.33%	3	16.67%	3	16.67%	2	11.11%	4	22.22%	18	100%
		Total	20	40%	9	18%	8	16%	5	10%	8	16%	50	100%
2	Gastric Problem	Mankira	6	40%	5	33.33%	3	20%	1	6.67%	-	-	15	100%
		Bonga TVET	6	35.29%	3	17.64%	3	17.64%	3	17.64%	2	11.76%	17	100%
		Bonga TTC	8	44.44%	5	27.77%	2	11.11%	2	11.11%	1	5.55%	18	100%
		Total	20	40%	13	26%	8	16%	6	12%	3	6%	50	100%
3	Respiratory Problem	Mankira	6	40%	6	40%	2	13.33%	1	6.67%	-	-	15	100%
		Bonga TVET	4	23.52%	5	29.41%	3	17.64%	3	17.64%	2	11.76%	17	100%
		Bonga TTC	5	27.77%	3	16.67%	4	22.22%	3	16.67%	3	16.67%	18	100%
		Total	15	30%	14	28%	9	18%	7	14%	5	10%	50	100%
4	Kidney Problem	Mankira	3	20%	4	26.67%	5	33.33%	1	6.67%	2	13.33%	15	100%
		Bonga TVET	5	29.41%	2	11.76%	5	29.41%	4	23.52%	1	5.88%	17	100%
		Bonga TTC	3	16.67%	3	16.67%	6	33.33%	5	27.77%	1	5.55%	18	100%
		Total	11	22%	9	18%	16	32%	10	20%	4	8%	50	100%
5	Liver Problem	Mankira	5	33.33%	4	26.67%	4	26.67%	1	6.67%	1	6.67%	15	100%
		Bonga TVET	5	29.41%	3	17.64%	4	23.52%	4	23.52%	1	5.88%	17	100%
		Bonga TTC	4	22.22%	3	16.67%	3	16.67%	4	22.22%	4	22.22%	18	100%
		Total	14	28%	10	20%	11	22%	9	18%	6	12%	50	100%
6	Sexual Problem	Mankira	3	20%	2	13.33%	7	46.67%	2	13.33%	1	6.67%	15	100%
		Bonga TVET	6	35.29%	5	29.41%	3	17.64%	2	11.76%	1	5.88%	17	100%
		Bonga TTC	4	22.22%	4	22.22%	4	22.22%	4	22.22%	2	11.11%	18	100%
		Total	13	26%	11	22%	14	28%	8	16%	4	8%	50	100%

Sport participants are asked to state their attitude on the major impacts of chewing khat, identified by Burnett and Fassil, 2002), Chewed in small quantities and occasionally, Khat is unlikely to cause long term physical harm. However, if it is chewed frequently and in large amounts it can lead to consequences for the individual's health. This can include oral infections. (Ali et.al 2004); problems associated with ingesting Khat that has pesticides on it. (Date, et al., 2004) and Khat induced psychosis. (Yousef et al 1996) Rassool and Abou-saleh, 200) stated that it affects the cardiovascular, digestive, respiratory, endocrine and genitor- urinary systems.

Khat is considered to increase blood pressure and Heart rate, and is associated with euphoregenic and psycho stimulants effect. (Brenneisen R, Fisch, Hu, Koelbingu)

The data collected revealed the following results:-

Item 1 Concerning Health problem, 40% (20) strongly agree, 18% (9) agree, 16% (8) undecided, 10% (5) disagree and 16% (8) strongly disagree on the case where Chewing a Khat affect the role of heart .

Item 2 regarding the impact of chewing Khat to Gastric Problems the respondent said: 40% (20) strongly agree, 26% (13) agree, 16% (8) undecided, 12% (6) disagree and 6% (3) strongly disagree. According to Al-Habori M (2005), the use of Khat is associated with development of gastrointestinal problems.

Item3 Concerning Respiratory problem because of chewing Khat 30% (15) strongly agree, 28% (14) agree, 18% (9) undecided, 14% (7) disagree and 10% (5) strongly disagree the impact.

Item 4 regarding kidney problem in relation to chewing Khat 22% (11) strongly agree, 18% (9) agree, 32% (16) undecided, 20% (10) disagree and 8% (4) strongly disagree. Al-Habori also mentioned the use of Khat is brings kidney problems.

Item 5 about the impact between liver problem and chewing Khat 28% (14) strongly agree, 20% (10) agree, 22% (11) undecided, 18% (9) disagree and 12% (6) strongly disagree. This result is also written in the study of Al-Habori as chewing of Khat causes cytotoxic effects on liver.

In item 6 respondents were also asked to rate their response regarding the effect of chewing Khat on sex. To this item they replied: 26% (13) strongly agree, 22% (11) agree, 28% (14) undecided, 16% (8) disagree and 8% (4) strongly disagree.

In contrary to the above finding, (Al-motarrab et.al. 2005) reported that chewing of increased sexual desire was most predominant effect experienced by Khat chewers.

**Table 12: Additional items for sport participants related with physiological problems.**

S.N	Items	Specification	Mankira Buna		Bonga TVET		Bonga TTC		Total	
			No	%	No	%	No	%	No	%
1	Being as a sport player, have you a medical check up on using of chewing Khat?	Yes	-		2	25%	-	-	2	10%
		No	3	100%	6	75%	9	100%	18	90%
		Total	3	100%	8	100%	9	100%	20	100%
2	If your answer is “yes” what are the results?	Gastric	-	-	1		-	-	1	5%
		Liver	-	-	-	-	-	-	-	-
		Kidney	-	-	-	-	-	-	-	-
		Heart	-	-	1		-	-	1	5%
		Mind disorder	-	-	-	-	-	-	-	-
		Respiration	-	-	-	-	-	-	-	-
		Total	-	-	2	-	-	-	2	10%

Khat Chewer sport participants are asked whether they made a medical check up on using chewing Khat. Among 20 Chat Chewer sport player only 10% (2) said they did a medical checkup. Hence almost all 90% (18) Khat player did not make medical checkup. Concerning the result of medical checkup one of the respondents said a gastric problem and the other said Heart problem.

Regarding the health problems related to Khat chewing by sport participant, they replied Khat chewer faced problems like dental, respiratory, Heart and bad odor of mouth.

### 4.3.4. Impacts of Chewing Khat on Sport Development

**Table 13: Analysis of foot ball players on impacts of chewing Khat on sport development**

No	Items	Clubs	Specification											
			Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree		Total	
			No	%	No	%	No	%	No	%	No	%	No	%
1	Decrease the performance of players	Mankira	9	60%	1	6.67%	-	-	3	20%	2	13.33%	15	100%
		Bonga TVET	7	41.17%	1	5.88%	2	11.76%	3	17.64%	4	23.52%	17	100%
		Bonga CTE	9	50%	4	22.22%	2	11.11%	1	5.55%	2	11.11%	18	100%
		Total	25	50%	6	12%	4	8%	7	14%	8	16%	50	100%
2	Decrease the provision of players	Mankira	9	60%	1	6.67%	3	20%	1	6.67%	1	6.67%	15	100%
		Bonga TVET	10	58.82%	4	23.52%	3	17.64%	-	-	-	-	17	100%
		Bonga CTE	10	55.55%	3	16.67%	2	11.11%	1	5.88%	2	11.11%	18	100%
		Total	29	58%	8	16%	8	16%	2	4%	3	6%	50	100%
3	Decrease the result of competition of clubs	Mankira	12	80%	1	6.67%	2	13.33%	-	-	-	-	15	100%
		Bonga TVET	8	44.44%	3	17.64%	-	-	4	23.52%	2	11.76%	17	100%
		Bonga CTE	6	33.33%	6	33.33%	1	5.55%	3	16.67%	2	11.11%	18	100%
		Total	26	52%	10	20%	3	6%	7	14%	4	8%	50	100%
4	Decrease the development of sport	Mankira	9	60%	3	20%	1	6.67%	1	6.67%	1	6.67%	15	100%
		Bonga TVET	8	44.44%	3	17.64%	1	5.88%	5	29.41%	-	-	17	100%
		Bonga CTE	5	27.77%	4	22.22%	1	5.55%	6	33.33%	2	11.11%	18	100%
		Total	22	44%	10	20%	3	6%	12	24%	3	6%	50	100%

Football Players are asked whether the development of Sport is affected by chewing of Khat. (Table13). The response of problems related with the development of sport is analyzed below.

Item 1 the decrease of the performance of players due to chewing khat, to this question respondent rated 50% (25) strongly agree, 12% (6) agree, 8% (4) undecided, 14% (7) disagree and 16% (8) strongly disagree. Regarding the decrease in provision of players, 58% (29) strongly agree, 16% (8) agree, 16% (8) undecided, 4% (2) disagree and 6% (3) strongly disagree. From these one can judge that most sport participants believe that the use of Khat affects the provision of the player.

Item 4 concerning the decrement of the result of competition in a club sport participants were asked to rate the problem whether it is affected by chewing of a Khat. For this 52% (26) strongly agree, 20% (10) agree, 6% (3) undecided, 14% (7) disagree and 8% (4) strongly disagree the impact. In a similar manner respondents also asked to rate the impact of chewing a Khat on the development of sport. To this they replied 44% (22) strongly agree, 20% (10) agree, 6% (3) undecided, 24% (12) disagree and 6% (3) strongly disagree.

**Table 14: Response of sport participants in relation to sport development**

S.N	Items	Specification	Mankira		Bonga TVET		Bonga CTE		Total			
			Buna		No	%	No	%	No	%	No	%
			No	%								
1	Do you believe that chewing Khat by players brings negative impacts on the development of sport?	Yes	13	86.67%	14	82.35%	16	88.88%	43	86%		
		No	2	13.33%	3	17.65%	2	11.12%	7	14%		
		Total	15	100%	17	100%	18	100%	50	100%		
2	How is your performance when you are doing training after chewing Khat?	High achiever	-	-	-	-	1	11.11%	1	5%		
		Good achiever	-	-	1	12.5%	2	22.22%	3	15%		
		Low achiever	3	100%	7	87.5%	6	66.67%	16	80%		
		Total	3	100%	8	100%	9	100%	20	100%		
3	Do you know those players who drop out from sport because of addiction of chewing Khat?	Yes	13	86.67%	14	82.35%	14	77.78%	41	82%		
		No	2	13.33%	3	17.65%	4	22.22%	9	18%		
		Total	15	-	17	-	18	100%	50	100%		

In addition to the above items sport players are asked to express their feeling on the impacts of chewing Khat on sport development, the analysis of their response is given below.

Item 1 regarding the negative impact of chewing Khat on the development of sport 86% (43) reaches to believe the reason. But 14% (7) of the respondents said that chewing of Khat does not affect the development of sport.

Item2, Khat chewer player are asked their performance on doing training after chewing. To this from the total of 20 Khat chewers 80% (16) said that their performance decreases when they did after chewing of Khat. Contrary 15% (3) of the respondents said became good achiever and 5% (1) said high achiever after chewing of Khat.

Item 3, Sport players are asked on those players who dropout from sporting due to addiction of Khat. To this item 82% (41) had now those who drop from playing. Hence this indicates that there are players that drop out from playing.

Non sportive participants were asked on the performance of Khat chewer player during competition. They replied that those who chew Khat frequently faced fitness problem, making a fault during competition and they showed tiredness.

The impact of Khat chewing on the development of the sport activity of the town is asked by the researcher for the non sportive participants. They gave their response as causes ineffectiveness of regional sport activities. This has been seen in recent zonal and regional competition the activity of sport participant of the study town is unsatisfactory. The other response that was given is chewing of Khat causes lack of model (elite) players on sport activities.

#### **4.4. Analysis of Findings Obtained Through interview**

This Part analyzes interview taken from Khat sellers. The interview was prepared in unstructured interview in face to face manner with Khat sellers to get additional information about the impact of chewing Khat on sport participants. Three Khat sellers are interviewed in this study. Thus, responses are summarized in the following way.

The Khat sellers are asked whether the Bonga football players bought Khat or not. The Khat sellers replied that they were not sure whether the buyers are foot ball players or not. But the customers are young. These speculate that the customers can be players.

What can be the purpose of chewing of Khat was the second item raised to the sellers. And they gave response: to get feeling of well being, to increase energy level of students, employers and merchants, to get nice mood, to increase alertness and to create social affairs like mourning house, wedding house and so on.

The cost of Khat taken per month is the other item interviewed for the Khat seller. They replied that one had to spend a minimum of Birr 30/40 per day. This shows frequent Khat chewer spent Birr 900 to Birr 1200 per month. This creates strong economical crises on Khat chewers.

The impacts of chewing of Khat are the last questions interviewed to the Khat seller. To this question all respondents said that chewing of Khat had no impacts at all. And they rather explain its advantage mentioned in item three above.



**Figure 6: Selling and buying of Khat.**

## 4.5. Analysis and Interpretation of Observation With checklist

Name of observer: Abdu Nuru

Date of observation: 02/05/2005 – 16/05/2005 E.C

Clubs, Mankira Buna, BTVET and BCTE

Time of observation \_\_\_\_\_

Starting \_\_\_\_\_ ending \_\_\_\_\_.

Sign. of observer \_\_\_\_\_

**Table 15: Bonga foot Ball player’s respondents’ opinions observation with checklist**

No	Prescription	Clubs	Evaluation Result			
			excellent	Very good	satisfactory	Un satisfactory
1	Interest of players for training	Mankira	✓			
		TVET		✓		
		CTE			✓	
2	The relation between coach and players	Mankira		✓		
		TVET			✓	
		CTE			✓	
3	Discipline of players	Mankira		✓		
		TVET			✓	
		CTE			✓	
4	Players attends every training	Mankira		✓		
		TVET			✓	
		CTE			✓	
5	Rules and regulations of clubs	Mankira				✓
		TVET				✓
		CTE				✓
6	Salary for players	Mankira				✓
		TVET				✓
		CTE				✓
7	Recreational placement	Mankira			✓	
		TVET			✓	
		CTE			✓	

As it was mentioned in the methodology section, practical training and check list observation was done for 8 days. The observation check list involved more of the activities of foot ball players. From table 15 indicated above the researcher summarized the following.

Mankira Buna club had an excellent interest for training than the other remaining clubs. This is because the other clubs did not have enough time to train as they are learning regularly in a college.

The relationship between coaches and player are very good in Mankira Buna Club where as in the rest clubs are satisfactory. These are because the coaches of the two educational organizational teams are their class teacher.

Regarding the discipline of teams during training observation check list and document analysis, in the study session of playing information reflected from referee report showed 5 red cards and 8 yellow cards for the BTVET and BCTE clubs during six games. But Mankira Buna club had only one yellow card. This indicates that Mankira Buna club had well disciplined than the other two.

Similarly in attaining training regularly Mankira Buna club showed very good result than the other two. This indicates that there are no handling methods or attendance taken by the coaches of the BTVET and BCTE clubs. The researcher had not seen written rules and regulations from each clubs. This indicates that the sport members are applying sport activities by traditional way. The sport participants are not paid as employed hence they did not give attention to overcome obstacles appearing on sport activities.

The recreational place in Bonga town was limited. The young community had lack of an adequate recreational place. This pushes the communities to pastime through chewing of a Khat.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATION

Based on the analysis and interpretation of data gathered through questionnaire, interview, focus group discussion and observation, the following summaries, conclusions and recommendations are drawn out.

#### 5.1. Summary

The main purpose of this study is to explore the impacts of khat (chat) among active sport participants or football players and then to propose possible intervention strategies depending on the result of the study. Specifically, the study intends to assess the attitude and knowledge of sport participants towards of Khat and to explore the impact of Khat on sport development. To this end, the attempt was made to achieve the above stated objectives by employing both qualitative and quantitative methodology In order to attain the required information, four data collection instruments were used namely; questionnaires focus group discussion, structured interview and observation. And also, the study was conducted on sample sizes of 50 football players, 3 khat sellers, 14 sport officials, administrators, coaches and 36 non-sportive participants of the study. The above instruments were employed with a view of exploring the experiences, perception and attitudes of the participants towards the impacts of Khat (Chat) among active sport participants.

The data obtained through questionnaire was analyzed statistically to get the correct figure. And the data gathered through interview, FGD and observation were analyzed qualitatively. Based on the analysis and discussion, summaries are presented as follows.

A hypothesis is often described as an attempt by the researcher to explain the phenomenon of interest. A key feature of all hypotheses is that each must make a prediction. This study hypotheses is alternate, because most sport participants are chew Khat.

**The following major findings are obtained based on the data analysis that is.**

- According to the result of background study, sport participants, coaches, sport officials & administrators, non-sportive participants of the study and khat sellers of the focused informants have different background.

- The interest of players in the training is not satisfactory due to the exposure of their chewer friends, they were become ill disciplined.
- There is no female's participation in football clubs.
- The participant players of football clubs are young age members and are not matured due to this most of the unable to understand the negative impacts of chewing khat.
- The players have no salary and incentives this leads the clubs to lose their power use the rules and regulations of the clubs.
- Due to shortage of recreational place in the town, the players have intended to chew khat in their pastime. In addition to this, they also participate in the gambling activities this can leads them again in the chewing activities.
- Misunderstanding of the participants towards the negative impacts of Chat (Khat) such as: heart disease, gastrointestinal, respiratory, kidney & liver. Even most players believe chewing khat will have alertness & psychological impacts which are numbness, leishairness, hopelessness, lack of adequate sleep and stress, but players not.

Sport officials and coaches of the clubs are not professionally specialized of football this leads them unable to administrate the football clubs.

- The inability of coaches to amend rules and regulations in chewing khat of the club participant players, and un ability to understand the psychological, sociological, and physiological impacts in the development of sport in town.
- Sport officials and administrators are unable to prepare continues computational schedule.
- The spectators or non – sportive participants unable to advise, encourage, evaluate and criticize sport community with regard to chewer members.
- Khat can create economical for khat sellers and they hide the negative impacts of khat for their benefit.
- Khat Chewing are conjunction with drinking alcohol, smoking cigarettes, smoking Shisha and illegal sexual intercourse and finally it leads the player to faith out from sport activities.

## **5.2. Conclusions**

Based on the major findings of the study the following conclusions were drawn.

Some participants were not matured for they were unable to understand the negative impacts of chewing chat on sociological, physiological, psychological and sport development.

### **Sociological impacts of Khat on active sport participants are:**

Their personal relationship with their team mates was inactive.

They were unable to agree with their coaches, sport officials and sport administrators.

No one gave them respect due to their misconduct.

Because of their addictiveness, they were always seen chewing chat as a result the socio-economic is endanger.

People claimed that they spend their time by chewing chat because of lack of recreational places (theater, playing field, gymnasium, sport station etc).

No player was given constructive comment from the spectators with respect to helping the addicted person stop the usual activity.

Chat sellers always talked about the advantages of chewing chat; by saying, chewing chat inspire the trainers' interest to do the activity, increase social interaction, help them became stronger, get positive solution for certain problems and so on.

The person who chews chat spent 200 bir-1200bir per month due to this they were not able to fulfill the available sport equipments and hence they rarely participated in the activities.

### **The impacts of chewing khat towards sport development**

Unable to set continues schedule for competition for the club has a single program in a year. This creates opportunities for players to spend their time by chewing chat. Although the concerned bodies understand the problem, they give less emphasis. And also the coaching system is very poor due to lack of specialized person in coaching. As a result, the current coaches are not able to manage the players properly.

Another effect of chewing chat is lower performance. The players who chew chat usually spend short time in training and do very simple activities and hence they show poor performance in the pitch. Moreover, they make costly mistake, became undisciplined because of lack of match fitness.

Although Chewing Khat has created physiological impact on long term user, it can be seen in a short period of time on sport development.

Finally, chewing chat can perhaps lead to smoking cigarette, shisha, and etc that reduce any participation in sport.

### **The effect of chewing chat on players' physiology**

As reported by the respondents, chat chewer players face various problems; such as, cardiovascular, respiratory, odor of the mouth, gastrointestinal, lack of adequate sleep after chewing and decreasing sexual desire (impotence of sexual activities).

### **The effect of chewing chat on players' psychology**

Chewing chat leads person to lose their self- stem and this made them demoralize and hopelessness. And also they became feel irritability, tiredness, insomnia, appetite impotence. Furthermore, they behave as if they are crazy, lack of tolerance, numbness, lazy, aggressiveness and disrespecting coaches, teammates and referees.

- **The reasons that lead players to chew chat are:** shortage of computational schedule, influence of friends who are addicted by Khat, using khat for gambling purposes, lack of personal work and etc. Due to this they have high tendency in using chat in order for fulfilling their interest. Furthermore, the absence of medical checkup among players facilitates the activity of chewing.
- **The reasons that help players not to chew chat are:** eager to show high performance while playing, to keep their fitness, to keep them from economic crises, to get social acceptance and etc.

- **The cases of lack of recreational places are:** lack of good governance in the study area, misunderstanding of sport missions by concerning bodies and lack of provision to initiation for changes.
- **The doping methods to cool of stimulant content after chewing Khat are:** drinking alcohol, smoking cigarettes, smoking shisha (water pipe smoking), taking hot drink and sexual intercourse.

### **5.3. Recommendation**

Based on findings and conclusions, the following recommendations are presented as follows.

1. All study participants should understand the negative effect of chewing chat on sport activities and give emphasis to avoid doing such activities.
2. The concerned body should provide some recreational places (entertainment locations) in order to minimize chewing chat around the area.
3. The absence of payment and incentive are one of the reasons that lead players it ignore focusing on sport and turn to chewing chat. Thus, the sport community should take this into account and try to find budget for sport participants or football players.
4. Lack of rules and regulations is the reason that leads players to participate actively in chewing chat. Hence, the football clubs must amend rules and regulations in order for preventing such misbehaviors among players.
5. The clubs should make the players to be checked continually and asses their player's health condition.
6. The absence of awareness is the impacts of khat in community. All non-sportive participants and sportive community should understanding and protest khat chewer players and give commenting advise to players.
7. Selfishness or self centered of khat sellers is one of the impacts of chewing khat by sport participants. Khat sellers should give commenting advice of chewing and buying's of impacts for players.

8. The shortage of competition is one of the impacts chewing khat by sport participants.

Sport administrators & Sport officials should prepare continues computational schedule.

9. Chewing of khat at stadium is one of the pushing factor to chew khat sport participants.

Therefore every considerable body should prevent stadium from chewing khat.

10. All stalk holders should make concentrated effort to improve the performance of players.

It is therefore, football coaching should be take specialized coaching methods or use scientific methods and avoiding traditional coaching methods.

11. It is recommended that additional research should be conducted on the same topic to come up with the solution and give further information for the sport community and stakeholders.

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## Appendix I

Addis Ababa University School of Graduate Studies, Department of sport Science

Questionnaires to be filled by Players

General Direction: This Questionnaire is prepared to gather the necessary information concerning the Chewing of Khat [chat] or non-chewing of Khat among Active sport Participants. Thus the success of this study depends on your willingness to give genuine and timely information.

Therefore you are kindly requested to respond to the questions as per the instruction indicated under each part.

### Thank You in advance for your Cooperation

Abdu Nuru

#### Part 1 Back Ground Information

Instruction1. Do not write your name.

2. Circle the letter of your choice or fill in the blank spaces provided when necessary.

1.1 Name of the club

1.2 Sex  Male  Female

1.3 Height\_\_\_\_\_ 1.4 Weight\_\_\_\_\_ -

1.5 Martial Status A. married B. Unmarried

1.6 Children's A. I have B. I haven't

1.7 Age A/ 15-20 B/ 21-25 C/ 26-30 D/ Above 31

1.8 Educational status. A/ 8- 1o B/Level 3 or 4 C/10+ 3 d/ 12 + 3

1.9. Experience on sport A/ 1 – 5 Years B/ 6-10 years C/ 11- 15 Years D/ 16 - 20

## Part II

Instruction: Choose the best answer otherwise fill the blank Space

2.1 Do you chew a Khat?

A/ Yes      B/ No      C/ Sometimes

2.2 If your answer is yes, for what purpose are you chewing?

---

If you are not chew Khat?, why not?

2.3 When you chew Khat?

A/ before training    B/ after training    C/ on both    C/ I didn't use

2.4 Have you got an available recreational place after training?

A. Yes      B. No      C/ Have, but related with Khat chewing

If your response for Item 2.4 is "Yes", where are you enjoying?

---

If your response for Item 2.4 is "No" What are the reasons?

---

2.5 What type of doping do you use after chewing khat?

A/ Alcohol      B/ sexual Intercourse      C/ hot drink      D/ Smoking cigarettes      E/ Water Pipe  
Smoking (Shisha)

2.6 What are your feelings during training after chewing khat?

---

2.6.1 If you do not chew khat please tell as your opinion.

---

---



2.15 Is there Disciplinary rule & regulations in your clubs about chewing Khat?

A/ yes      B/ No      C/ I do not Know

2.16 If your answer is yes, what are the rules in terms of chewing khat?

A/ Very strongly forbidden    B/ strongly forbidden    C/ It is not forbidden

2.17 Do you believe that chewing Khat by players brings negative impact on the development of sport?

A/ yes                      B/ No

2.18 If your answer is yes, mention the impact?

---

2.19 How is your performance when you are doing training after chewing Khat?

A/ High achiever    B/ good achiever    C/ low achiever

2.20 What is your behavior on training or competition after chewing of Khat?

A/ nagging    B/ dizzy    C/ Silent    D/ tiredness

2.21 Do you know those players who drop out from sport because of addiction of chewing chat?

A/ yes                      B/ No

2.22 How much do you spend per month for using chewing Khat, Smoking cigarettes, water pipe smoking (Shisha ) and Alcohol ?

---

2.23 Do you know the impact of shisha (Water pipe smoking)?

A/ Yes                      B/ No

### Part III

Instruction: Please indicate the extent for which the following impact of chewing Khat on among active sport participants. Mark “X” in column which nearly affects of chewing Khat by using the following five point rating Scales

Strongly Agree = 5   Agree = 4   Undecided = 3   Disagree = 2   Strongly Disagree = 1

No	Factors ( Problem)	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
		1	2	3	4	5
1	Sport Development					
1.1	Decrease the performance of players					
1.2	Decrease the provision of players					
1.3	Decrease the result of club					
1.4	Decrease the sport development					
2	Psychological factors					
2.1	Dizziness of players					
2.2	Lazy					
2.3	Hopeless of players					
2.4	Lack of adequate sleep					
2.5	Anxious					
2.6	Lack of appetite					
3	Social factors					
3.1	Lack of interrelation ship with other players					
3.2	Lagging of Training /drop out / from training					
3.3	Disciplinary problems with others					
3.4	The lack of acceptance from society					
3.5	manner of addictiveness					
3.6	Economical crises					
4	Medical problems					
4.1	Heart					
4.2	Gastric					
4.3	Respiratory					
4.4	Kidney					
4.5	Liver					
4.6	Sexual					

## Appendix II

### Questionnaire

Addis Ababa School of graduate Studies Department of Sport Science

Focus Group Discussion Guideline for Sport official, Sport Administrator and Sport Competition Committees

Sex \_\_\_\_\_ Age \_\_\_\_\_

Marital status \_\_\_\_\_ Educational level \_\_\_\_\_

Years of service in current position \_\_\_\_\_ -

Position in sport \_\_\_\_\_ ----

1. Do Bonga Town Foot Ball Players chew Khat?
  2. What are motivators of chewing Khat towards on players?
  3. What are your responsibilities when the players chewed Khat?
  4. What measure should be taken on the impacts of chewing Khat?
  5. What are the attitudes of society to wards of chewing Khat?
  6. What are the impacts of chewing Khat for the development of sport activities?
  7. How can develop sport activities in Bonga Town?
  8. How can facilitate sport activities in Bonga Town?
  9. How many Players do chew Khat in one club?
  10. What kind of doping do players use to decrease of stimulation after chewing Khat?
  11. What are the behaviors of players when after chewing Khat?
  12. How is the performance of Khat chewer`s players on training and competition session?
  13. How much players do costs to chew Khat per month?
  14. What are the statuses of family of Khat chewer players?
  15. How is the Health status of Khat chewer player
-

### Appendix III

Addis Ababa University School of Graduate Studies, Department of Sport Science

Questionnaires to be filled by Spectators (Non sportive samples)

General Direction: This Questionnaire is prepared to gather the necessary information concerning the Chewing of Khat [chat] or non-chewing of Khat among active sport participants. Thus the success of this study depends on your willingness to give genuine and timely information.

Therefore you are kindly requested to respond to the questions as per the instruction indicated under each part.

Thank You in advance for your Cooperation

Abdu Nuru

Sex \_\_\_\_\_ Age \_\_\_\_\_

Employment \_\_\_\_\_

Martial status \_\_\_\_\_

Experience of Spectators \_\_\_\_\_

1. Do Bonga Town foot ball players chew Khat?

---

2. For what purpose do athletes chew Khat?

---

3. How is the performance of Khat chewer players during competition?

---

4. How is the discipline of Khat chewer during competition and after competition?

---

5. What kind of doping do players use to decrease stimulation after chewing Khat? How many players are chewing Khat in one Club?

---

\_\_\_\_\_.

6. What measures should be taken to prevent chewing of Khat in players?

---

7. What are the impacts of chewing Khat for sport development?

---

8. Do players chew Khat mystery or openly?

---

9. Where do they chew Khat?

---

10. Is there available recreational place in Bonga Town?

---

11. If your response for item “11 “is no recreational place, what are the reasons for the lack of recreational places.

---

12. What measures should be taken to fulfill of recreational places.

---

13. What are the impacts of Khat Chewing on players?

---

14. How much players do costs to chew Khat per month?

---

---

15. How is the health status of Khat chewer players?

---

## **Appendix IV**

Interview questions for Khat sellers.

1. Bonga football players bought Khat or not?
2. Would you tell me the purposes of chewing Khat?
3. How many costs of the Khat per month?
4. Would you please describe the impacts of chewing Khat?

## **Declaration**

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

Name: **Abdu Nuru**

Signature \_\_\_\_\_

Date: \_\_\_\_\_

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

Name: **Bezabih Wolde**

Signature \_\_\_\_\_

Date: \_\_\_\_\_