

**ASSOCIATION OF AGGRESSION AND INJURY OF FIELD EVENT
ATHLETES: IN CASE OF SOME SELECTED ATHLETICS CLUBS OF
OROMIA SPECIAL ZONE SURROUNDING FINFINNE**

BY: FERAOL SHEBE



**A THESIS REPORT SUBMITTED TO JIMMA UNIVERSITY COLLEGE
OF NATURAL SCIENCES DEPARTMENT OF SPORT SCIENCE IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF SCIENCE IN ATHLETICS COACHING**

AUG, 2020

JIMMA, ETHIOPIA

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AUG, 2020

JIMMA, ETHIOPIA

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JIMMA UNIVERSITY
COLLEGE OF NATURAL SCIENCES
DEPARTMENT OF SPORT SCIENCE

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As members of the Examining Board of the Final MSc. Open Defence, we certify that we have read and evaluated the thesis prepared by: Feraol Shebe entitled: Association of aggression and injury of field event athletes: in case of some selected athletics clubs of Oromia special zone surrounding Finfinne. We recommend that it could be accepted as fulfilling the thesis requirement for the degree of Master of Science in Athletics coaching.

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Title of the Thesis: **Association of aggression and injury of field event athletes: in case of some selected athletics clubs of Oromia special zone surrounding Finfinne.**

Degree Awarded: **MSc/PhD** (Encircle one)

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LIST OF ABBREVIATIONS

ACL	Anterior cruciate ligament
CAAS	Competitive anger and aggressiveness scale
IOC	International Olympic committee
NCAA	National Collegiate Athletic Association
(NEO-PI- R)	Neuroticism-Extraversion-Openness Personality <i>Inventory</i> Revised
OSZSF	Oromia special zone surrounding Finfinne
SPSS	Statistical package for social sciences
TASRI	Type a Self-Rating Inventory

DEDICATION

I dedicate this manuscript to all my family and to all my friends for treating and supported me in different issues.

STATEMENT OF THE AUTHOR

I the undersigned declare that this thesis is my original work and has not been presented for any degree in any university and all the resource of materials used for this thesis have been dually acknowledged.

Brief quotations from this thesis are allowed without special permission provided that accurate acknowledgment of source is made. Requests for permission for extended quotation form or reproduction of this manuscript in whole or in part may be granted by the Research and post graduate coordinating office of College of Natural Science of the Sport Science Department when in his/her judgment the proposed use of the material is in the interest of scholarship. In all other instances permission must be obtained from the author.

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BIOGRAPHICAL SKETCH OF THE AUTHOR

The author was born in west Shewa zone around Ginchi town, which is found in Oromia Regional State in October 15, 1986 E.C. He has completed his primary school at three different schools which were from 1st -5th grade at Danisa primary school, 6th and 7th grade at Burayu primary and took primary school leaving examination at Fitawurari Habtegiorgis School in Addis Ababa. He has completed secondary and preparatory schools in Addis Ababa and joined Jimma University in 2007 E.C. In 2009 E.C he has completed his BSc degree in Sport Science from Jimma University. Since then, he was worked as Sport Science Graduate Assistant in Jimma University for a year. Then he joined the School of Graduate Studies of Jimma University in 2011 in E.C to pursue MSc degree in Sport science (specialization in Athletics Coaching).

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ABSTRACT

The purpose of this study was to assess the association of aggression and Injury of field event athletes: in case of some selected Oromia special zone surrounding Finfinnee athletics clubs. The study area was Burayu, Sebeta and Legaxafo athletics clubs which were found in Oromia special Zone Surrounding Finfinne and this were selected using purposive sampling technique. The researcher was used cross sectional research design. The total population from those clubs were forty four athletes (N=44), and 6 coaches, of which were athletes sampled (n =44) was determined by census sampling technique. The Instruments prepared for data collection were questionnaires for athletes (n=44) and interview for coaches (n=6). The collected data were analyzed by descriptive statistics including frequency and percentage and Pearson correlation analysis was used to analysis the relationship between aggression level and injury of athletes using SPSS v20. The descriptive results shows that the aggression level of athletes were higher so as injuries too and Pearson correlation result also indicates that there is no significant value between the aggression level and reported injuries. Results of the analysis between aggression and injury of athletes are 0.50 >0.05 with anger and 0.694 >0.05 with aggressiveness at 95% confidence level or the relationship between aggression and injury is insignificant in general. The finding of the study indicates that even though there were higher reported number of athletes' aggression and injuries there was no association between them specifically on some selected field event athletes of Oromia special zone surrounding Finfinne athletics clubs. Therefore, the researcher recommended that the means of minimizing and preventing aggression and injuries should be introduced, for further testing of an association between variables other researchers should conduct in-depth studies involving higher number of participants samples and by looking into variety of possible factors.

Key words: - Association, Aggression, Injury, Field Event, Athletes.

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

Injury is an unfortunate risk that, in step with most coaches, athletes, and medical practitioners, is an unavoidable a part of athletics. Most athletes that participate in high level sports experience some style of injury during their athletic careers. Ironically, despite significant advances in science of coaching, improvement in coaching techniques, technological progress within the design of athletic equipment, protective devices and facilities, the incidence of sport injury has actually increased during the past 15-20 years (J. W. Orchard & Powell, 2013).

One of the main factors preventing the belief of full potentials in high performance athletes is injury. it's still an ongoing debate among sport medicine professionals and coaches whether athletic injuries are an inevitable a part of athletics, or whether or not they could also be predicted or maybe prevented by utilization of advanced coaching strategies and technologically safe equipment. To completely elaborate on the problems of injury among elite athletes it's necessary to contemplate multiple factors, both the external and internal causes and consequences of injury (Slobounov, Semyon M., 2008).

In reference to this there are basically two varieties of injuries; acute injuries and overuse injuries. Acute injuries are usually the results of one, traumatic event. Common examples include wrist fractures, ankle sprains, shoulder dislocations, and hamstring muscle strain. While overuse injuries are more common in sports than acute injuries, they're subtle and typically occur over time, making them challenging to diagnose and treat. They're the results of repetitive micro-trauma to the tendons, bones, and joints. Common examples include runner's knee, jumper's knee, Achilles tendinitis, and rubor (Panagos, 2011).

Similarly Physical injury is an inherent risk in sports participation and to a specific extent must be considered an inevitable cost of grooming and competition. Injury may cause incomplete recovery and residual symptoms, drop out from sports, and may cause joint degeneration within the long run. It's important to balance the negative effects of sports injuries with the numerous

social, psychological and health benefits that a significant commitment to sport brings (Maffulli, Longo, Gougoulas, Caine, & Denaro, 2011).

According to the Anderson and Williams Stress-Injury Model, personality factors, either alone or together with an athlete's history of stressors or coping resources, influence the strain response. It's this response that precedes the occurrence of an injury (Williams & Andersen, 1998). Moreover, some research findings have suggested that the connection between personality factors and injury occurrence could potentially working method to prevent injury (Lavallée & Flint, 1996).

On the opposite hand some extrinsic factors like terrain, hard running surfaces or incorrect shoes have also been identified as contributing factors to injury. a mixture of intrinsic factors like poor flexibility, anthropometry, previous injury and running experience could relate to running injuries .Thus it's important to own knowledge about possible risk factors associated to running injuries to forestall further injury and severe long-term complications .The medical management of any sports injury is expensive and time consuming, thus preventative strategies are needed to cut back medical expenses. Before any of those programmers may be designed and implemented, it's imperative to own baseline data including prevalence, incidence rates and also the possible risk factors that predispose the athlete to injury (Taunton et al., 2003).

Additionally, aggression is additionally believed to be stable throughout an individual's lifetime (Bushman & Wells, 1998) have corroborated this assertion since it's been shown that as individuals' age and mature their level of trait aggression remains constant individuals with high levels of trait aggression are more likely to interact in behaviors that are considered to be aggressive(Gee & Leith, 2007).

Consequently, during this research what the researcher wants to reveal is whether or not there's an association between aggression and Injury of field event athletes: just in case of some selected Oromia special zone surrounding Finfinnee athletics clubs.

1.2. Statement of the Problem

Ethiopia has a historical success in the athletics program(specially long distance running), it took 5th place in the world ranking late alone during the Olympic champion at Beijing Olympic 2008, International Olympic committee (IOC, 2010), noted on (Gizaw, 2013). In order to keep the success on athletics and promote prevention of sports-related injuries, the magnitude and type of the problem must first be identified and described. Systematic surveillance of sports injuries and knowledge of the risk factors and the specific patterns of injury treatment are inadequate in Ethiopia.

Moreover, a history of previous injuries related to running is found to be an associated risk factor as runners tend to continue training whilst experiencing pain and this delays healing of the injured structures. This involves competitiveness as the runner will run excessive mileage and possibly sustain an injury but will ignore the signs and symptoms and continue to run through pain. Furthermore, once the athlete returns to running after the presumed recovery of injuries, the athlete tends to be more competitive and subjects the already compromised structure to an increase in training, thereby increasing the risk of re-injury (Alonso et al., 2010).

According to (Kassa, 2017) cause and management of sport injury and its impact on athlete's performance: the case of Ethiopian youth sports academy; Training errors, and injury management were the major causes and their impacts have seen on athlete's performance. As sports participation increases, so does the incidence of both acute and over use sports-related injuries ; the incidence further rises as the sport takes more time

Therefore ,the above mentioned researches indicate that severity of time ,Training errors, poor training practices as a cause of injury and for injury prevention strengthening exercises, nutritional counseling were listed for different sports and different age group of athletes. Whereas the main purpose of this research will be to assess association of Athletes aggression and Injury of field event athletes: in case of some selected Oromia special zone surrounding Finfinnee athletics clubs.

With this end, Systemic study of Athletics injuries should be expanded in order to develop appropriate preventive measures. To the authors' knowledge, no study has attempted to assess the association of aggression and Injury of field event athletes: in case of some selected Oromia

special zone surrounding Finfinnee athletics clubs. In line to this, the researcher wants to look into the following research questions:-

1.3. Research questions

1. How is the current status of athlete's aggression level in Oromia special zone surrounding Finfinnee athletics clubs?
2. What is the current status of athlete's injury in Oromia special zone surrounding Finfinnee athletics clubs?
3. Do athletes aggression level and athletes injury have association in Oromia special zone surrounding Finfinnee athletics clubs
4. Is there a difference between athlete's aggression and injury across event and clubs in case of field event athletes in some selected Oromia special zone surrounding Finfinnee athletics clubs?

1.4. Objective of the study

1.4.1. General Objective of the study

- ❖ The purpose of this study was to assess the association of aggression and Injury of field event athletes: in case of some selected Oromia special zone surrounding Finfinnee athletics clubs.

1.4.2. Specific objectives of the study

- ❖ To assess the current aggression level of field event athletes: in case of some selected Oromia special zone surrounding Finfinnee athletics clubs.
- ❖ To identify the current Injury of field event athletes: in case of some selected Oromia special zone surrounding Finfinnee athletics clubs.
- ❖ To analyze the relationship of aggression and injury of field event athletes: in case of some selected Oromia special zone surrounding Finfinnee athletics clubs.
- ❖ To find out whether or not there is difference between aggression and Injury across event and clubs in case of field event athletes in some selected Oromia special zone surrounding Finfinnee athletics clubs.

1.5. Delimitation of the study

This study was conducted in Oromia special zone surrounding Finfinne athletics clubs. The study was delimited to athletes and coaches who were taken part in selected athletics clubs. Moreover, it was delimited to the association of aggression and injury rate of field event athletes: In case of Oromia special zone surrounding Finfinne athletics clubs. This study has been conducted within March 2020 up to June 2020.

1.6. Limitation of the study

It should be noted that no research is without its limitations and the present study is no exception. Therefore, one of the potential limitations of the study was lack of adequate local researches related to relationship between aggression and injury of athletes. The researcher tried to design a thesis as properly as possible; there were some external factors that limited the strength of the study:

- ❖ Lack of accurately recorded document and unclear information concerning with athletes injury.
- ❖ The other serious problem was lack of relevant reference materials, sufficient books and literature in the area of study.
- ❖ Lack of systematic injury surveillance system to get a record of athletes' injury history in a more organized way.
- ❖ Covid-19 pandemic had a challenge on finishing the thesis on time.

1.7. Significance of the study

The purpose of this study was to assess whether the athlete's aggression level is related to the number of injuries occurrence of those field event athletes of Oromia special zone surrounding Finfinne athletics clubs.

- ❖ The clubs, coaches and athletes especially in Oromia special zone surrounding Finfinne will have a current status of their athlete's injury rate.
- ❖ It reveals the association between aggression and injury of athletes.
- ❖ It paves a way for other researcher's to conduct deeper research on the issue of injury, cause and prevention methods.

- ❖ Provides an input for Sports medicine professionals to devise an injury prevention method.
- ❖ Serves as one means of academic promotion for the researcher.

1.8. Operational definition of terms

Aggression: - Any form of behavior directed toward the goal of harming or injuring another living being who is motivated to avoid such treatment (Baron & Richardson, 1994).

Association: - Method of explaining a relationship between two statistical variables/ General relationship between two random variables

Athlete: - Is a person who trains for performance enhancement under the supervision of a coach in a specific club and event. (<https://www.yourdictionary.com>)

Athletics: - The sport of competing in track and field events, including running races and various competitions in jumping and throwing

Club: - Is an organization of people interested in a particular activity or subject who usually meets on a regular basis. (<https://www.collinsdictionary.com/dictionary/english/club>)

Field event: - Athletic sports other than races, such as throwing and jumping events.

Injury:-The occurrence/ event which prevents an athlete from participation either during training or completion.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Athletics in Ethiopia

Sport activities including athletics have long gone but short history in Ethiopian. With this regard, Abera (2008) as cited by Teshaynew (2010) described that the precise roots of Ethiopian Athletics can't be traced accurately. However, there's a belief that sport was widely practiced in schools and military before 1897. Moreover, it's widely believed that modern athletics has been originated following the beginning of recent education and military services. Whether or not the sector of athletics event (running) has been widely, practiced sport activities in Ethiopia, famous athletes exist in, it's not freed from problem. Per Sung (2001) cited in Teshaynew (2006) acknowledged Athletics performance is generally determined by factors like physical conduction, technical and psychological activities. Some have claimed that each one the foremost noble of human accomplishments, from poetry to sport: have their genesis within the impulse to play. And if it's accepted that other creatures share this impulse and most animal, like children's enjoyment of running, chasing, tumbling, wrestling then on-then on this view sport may even be held to attendant humans(Huizinga, 1938, as cited in Morrow, S.(2003)others link sport with work instead of play.

2.2. Aggression

Aggression has become a significant issue in sport and as a result been the topic of in depth research. However, various definitions of aggression are presented within the literature counting on the context of research. The foremost common definitions within the literature essentially define aggression as any style of action with the direct goal of incurring harming or injuring another person while the recipient is motivated to avoid such treatment. (Terry & Jackson, 1985) defined aggression in sport as: 'harm-inducing behavior bearing no direct relationship to the competitive goals of sport, and relates, therefore, to incidents of uncontrolled aggression outside the principles of sport, instead of highly competitive behavior within the rule boundaries.' This definition serves to confirm that accidental incidents don't seem to be considered to be aggressive since there was no intention to harm the individual. The International Society of

Sports Psychology's definition of aggression includes verbal, physical or gestural aggression between people additionally to mentioning that aggression isn't an attitude but a behavior and is performed with the intent to injure. Using the assorted definitions it's clear that aggression isn't just manifested as a physical action but is expressed in an exceedingly type of other ways. Including all methods of portraying aggression can greatly enhance one's investigation of the subject in respect to sports since athletes may express their aggression through any channel. Once the concept of aggression is known it's important to know what factors can influence the expression of the behaviors. Aggression in sport can have variety of predisposing factors including one's innate personality or level of trait aggression.

Trait aggressiveness is one in every of the foremost important measures when examining aggression in any context and is defined, because the personality trait of being aggressive. By utilizing a measure that assesses an athlete's level of inherent aggression researchers could also be able to predict those participants that are likely to retort in a very similar manner. (Vega, 2006) has reported that scores on the Buss and Perry Aggression Questionnaire could predict, during a sample of collegiate males, incidents of violence and aggressive actions. The authors also showed that past events of reported violence may well be strongly predicted by those participants reporting high levels of trait aggression indicating a relationship between the variables. This factor, of trait aggression, is ingrained into an individual's personality and per the literature is comparatively consistent throughout the lifespan. The consistency across one's life is interesting since irrespective of the measure went to examine trait aggression the results remain stable. Therefore, those athletes with high levels of trait aggression are more likely to be aggressive throughout the lifespan and be more to have interaction in violent or confrontational behaviors. Since trait aggression has been shown to be constant throughout the lifespan it seems to reason that this behavior should be seen all told activities that individuals would participate in. Instances of aggression in existence and in sport are similar with relevancy trait aggression. High levels of trait aggression were one in every of the strongest predictors of aggressive actions in sport. In sport there are two kinds of aggression that are discussed within the literature: sanctioned and unsanctioned aggression. Any aggressive behavior or action that doesn't violate any rules of the game is termed sanctioned aggression. Conversely, unsanctioned aggression is any variety of aggression that's not permitted within a sport. Intent plays an especially important role in aggression and may be examined as closely because the style of aggression. There are

three varieties of motivational aggression including instrumental, reactive, and hostile; these essentially describe the athlete's reasoning behind committing the act. Instrumental aggression occurs when someone transgresses against opponents to secure a positive game outcome. Reactive aggression involves an athlete's anger and aggression as a second reaction to some provocation. And at last, hostile aggression may be a planned transgression that will occur sometime after the first incident. Aggression in sport isn't only understood through these definitions but an analysis of the theories behind the concepts can help to explain the motivation and causes for such behavior (Kimble, Russo, Bergman, & Galindo, 2010).

2.2.1. Theories of aggression in sport

There are multiple theories about aggression in sports that are described within the literature to elucidate aggression in sport and why the acceptance of those actions is increasing. Although these theories are devised by various individuals there are significant amounts of overlap between the processes. The primary theory mentioned is that the frustration-aggression hypothesis developed by (Gustafson, 1989). This theory states that if someone is actively prevented from attaining his or her goals emotions of anger and frustration will begin to arise; and, as these feelings increase the prospect that the person will react in an aggressive nature will increase. Leith examined Berkowitz's theory using high school age males (N = 10) to work out if specific independent variables would influence athletes displayed aggression. the primary variable was activity strategy which had three conditions: (1) cooperative where the athlete was working alongside a confederate, (2) competitive where the topic was working against the confederate, and (3) competitive-aggressive, where the confederate would use aggressive actions in a shot to win. The second variable, the outcomes of those tasks, was decided before the start of the experiment so some subjects would achieve success et al wouldn't. Finally, the athlete's level of arousal was firm before and following the result. Using self-report measure athletes rated their current level of aggression. Results revealed that those participants within the competitive or competitive-aggressive tasks were way more likely to report higher levels of aggression following the conclusion of the activity. The results also showed that the themes were less likely are aggressive if that they had been successful on the task. Berkowitz's theory when examined in hockey, has shown that athletes will behave way more aggressive in certain situations, for instance when there was an outsized score differential, if they were playing in away games,

losing, and at last the playing period of play. These three studies have some important and similar findings since researchers found that no matter the age of the participants, either high school age males or professional hockey players, the context of the activity greatly influenced the response, specifically aggression.

The second theory that has been accustomed describe aggressive tendencies in sport is that the social learning theory. According to (Laland & Rendell, 2009) the Bandura's theory people learn and adopt aggressive behavior by observing others and so decide whether or to not adopt the behavior supported the result of the initial situation. An example of social learning occurs in sport when an individual's observation of aggressive actions leads to positive outcomes or the specified goal for the perpetrator. If the aggressive behavior is seen by others as a way to get similar outcomes then social learning has occurred. Unlike the research that has been performed on the frustration-aggression theory there has been little performed on the social learning theory within the sporting context. Most of the findings indicated that attitudes, personality, and private behaviors are highly influenced by variety of close personal relationships, culture and society. Essentially if an athlete believes a particular aggressive act will obtain a desired outcome, like a goal or a winning result, the individual is far more likely to proceed with this action if he or she has seen positive results by others in similar situations. However, if the athlete is unsure of the implications the likelihood of aggression is significantly less.

A third theory that has been accustomed describe aggression is that the script theory. The script theory was developed by (Rowell Huesmann, 1988) and states that when people, specifically children, see violence in society or during their daily lives they cognitively create aggressive scripts that serve to manage behavior. The individual first creates a script for a selected situation then assumes a component within the script. During social development these scripts are stored and to be utilized at a later time when an analogous situation arises to guide the social behavior. The more frequently these scripts are recalled the stronger their associations to specific situations become and also the more readily they will be recalled. When a toddler witnesses a situation during which aggression has been advantageous a script are going to be created that places the kid within the role of the aggressor. This script can then be recalled at a later time when addressing the same situation and also the child will assume that aggressive status. In athletics this theory would function almost like the social learning theory.

(Gee & Leith, 2007) have examined professional hockey in an endeavor to work out which of the previously described theories best describes aggression in athletics. This research is vital since it might provide strong evidence supporting a possible explanation to a reason behind aggression in sport participation. The authors have theorized that birthplace may play a task within the level of aggression displayed in professional hockey. to check this theory (Gee & Leith, 2007) have used penalty records from one season of professional hockey. there have been 2185 penalties recorded on the season. Their research focused on whether there was a difference within the displayed aggression between North American and European born players within the National league (NHL). These findings indicated that the North American born players displayed more aggression than the rookie European players but not the veteran European players supporting the social learning theory. The veteran European-born players are within the league longer and thus are exposed to the behaviors for much longer for a longer than their rookie counterparts and thus social learning has occurred. The authors believe that the NHL's pro-aggressive attitudes and acceptance positively reinforces the aggressive tendencies and thus creates the likelihood that the behaviors will perpetuate via the social learning theory. However, their research also supported the chance that certain situations were more likely to lead to an aggressive response partially supporting the Frustration-Aggression hypothesis.

2.2.2. Factors that influence aggression

Contextually, aggression may be influenced by numerous intrinsic and extrinsic factors. As stated previously, true that the athlete finds themselves in, like losing a game or failing at a task, can trigger responses of aggression. Additionally to those extrinsic factors there are numerous intrinsic factors which will influence an athlete to reply aggressively. One among the foremost extensively researched factors in reference to aggression is an individual's gender. Variety of innate psychological, physiological and anatomical factors that play into display of aggression and responses include personality traits, attitudes that are held about this situation, and private and ethical values are examined. As an example, (C. Anderson & Bushman, 2002) in review of human aggression they reviewed research concerned with gang-related violence and aggression. In additional to cognitive factors shaping aggressive behavior it's been shown that gender plays a serious role within the display of aggression.

Personality type and gender are two of the predisposing factors that are thought to influence the displays of aggressive behavior; therefore, (Aillaud & Piolat, 2012) examined the differences within the display of aggression in males and females in reference to variety of personality factors. The researchers utilized 134 college age students (N =93 female and N = 41 males) with a median age 20 years. The participants were required to finish out six self-report questionnaires including the Relational Aggression Questionnaire, the Physical Aggression Questionnaire, and NEO Five-Factor Inventory for personality type, the Beck Depression Inventory and also the Anxiety Inventory. The information was then examined in reference to gender across the assorted personality factors, which were: agreeableness, extraversion, conscientiousness, openness, depression, anxiety, and interpersonal skills. The relevant findings of this research indicated that personality types and gender played a significant role within the expression of aggression within the sample population. Both genders displayed physical and verbal aggression. However, it's been reported that men displayed higher levels of physical aggression which is in line with previously performed research.

One personal factor that has been linked to aggression is high levels of trait aggression. Having high levels of trait aggression describes the personality of an individual with a high proneness towards aggression. Researchers (Buss & Perry, 1992) have defined trait aggressiveness because the inclination to have interaction in physical or verbally aggressive actions, hold hostile cognitions, and knowledge and express anger. High levels of trait aggression are more likely to cause individuals to react in specific ways in which include being at risk of hostile attribution and altered situational perceptions. Because of the findings within the literature most of the research conducted during this area has focused solely on the male gender. Males, both men and boys, have repeatedly been shown to display far higher levels of physical aggression than female participants in social situations. Therefore, a good deal of research has been dedicated to investigating the link between males and aggression. (Gidycz, Warkentin, Orchowski, & Edwards, 2011) performed a study that examined aggression in college-aged males. They examined variety of things that are theorized in literature to contribute to the perpetration of violence. The researchers examined whether alcohol use, fraternity membership, sexual experiences and reported aggression could accurately predict whether a personal would be a perpetration of violence.

According to the authors males who are member of sport teams and fraternities are more likely to have interaction in aggressive and sexually coercive acts when put next to their unaffiliated counterparts. Gidycz and colleagues study's included undergraduate students (N=425), a number of which were involved in fraternities or sport teams, and utilized a prospective study design. Participants were interviewed on twice at the start of the study so again three months later. The results indicated that if the participant reported events of aggressive actions before the start of the study the individual was more likely to own subsequent issues with violent behavior. This statement was validated by the high correlation between males reporting a history of verbal and physical aggression and also the admitted use of violence and verbal aggression at the three month follow up. Therefore, athletes that have displayed highly aggressive behaviors within the past are visiting be more likely to continue these actions throughout their careers.

Physiological factors are studied in those participants with highly aggressive personalities. Individuals with high levels of aggression are found to be more likely have extremely elevated pressure as a response to emotional stimuli. This physiological response may predispose certain individuals for cardiovascular results. Research examining the connection between physiological factors and aggression has been done by (Betensky & Contrada, 2010). Their study utilized healthy female undergraduate participants (N=63) at a significant university with a median age of 19.38 years with no reported anamnesis of cardiac, psychiatric, or neurological conditions. The topics then completed the Beck Depression Inventory, the (Buss & Perry, 1992) Aggression Questionnaire, a health and behavior questionnaire, and had their force per unit area measured and recorded. Subjects were then asked to square and talk about an occurrence within the past six months that had made them feel depressed so as to elicit an emotional response. The results showed that those participants with higher levels of trait aggression, specifically those women who were more verbally aggressive, were at an increased risk for an exaggerated stress response to an emotional situation. These findings highlighted the physiological responses and highly aggressive personalities. Strength and body size has been examined united of the possible indicators of physical aggression. The authors, (Archer & Thanzami, 2007) examined whether participants (N=88; M=26.01 years old) physically stronger and heavier than their less developed counterparts would be more likely to report higher trait aggression. The results showed an association between strength, body size, strength, and aggression. The more aggressive participants were also heavier and stronger than their counterparts, which indicated that the more

physically intimidating people were also more likely to report higher levels of aggressive actions. These findings showed stronger athletes is also more likely to display aggressive tendencies during sport participation in comparison to their weaker counterparts. Thanks to their increased size these athletes can potentially seriously injure a smaller less aggressive athlete. Aggressive behavior in athletes has been an ongoing topic of research and findings reported within the previous study can highlight why it's so important both in social settings and on the sector to forestall possible injury.

2.2.3. Measuring levels of trait aggression

According to (Maxwell & Moores, 2007) measuring aggression in sport is difficult. There are numerous methods of administration of the aforementioned task which may include interview, questionnaire assessment, and at last direct observation of the participant during either in a very laboratory environment, like during a constructed scenario, or in during actually life. the primary two methods presented, interview and observation, may be both time consuming and because of the varied definitions of aggression in sport could also be difficult. Therefore, the questionnaires to live aggression in sport are typically used more often than the observation and subsequent interview method. consistent with (North, Suris, Davis, & Smith, 2009) when attempting to see which measure to utilize during research to contemplate variety of things including the population that's being examined, the operational definition of aggressiveness, likewise because the behaviors which will be manifested during the experiment. Five major measures are utilized in the relevant literature to live aggression in sports; these measures are: the (Buss & Durkee, 1957) Hostility Inventory, the (Buss & Perry, 1992) Aggression Questionnaire, and Biedermeier Athletic Aggression Inventory, which specifically measure aggression, and therefore the Continuum of Injurious Acts, and eventually the Sports Behavior Inventory that measure the perception of the legitimacy of one's actions during sport participation. the ultimate two measures presented by the authors, the Continuum of Injurious Acts and therefore the Sports Behavior Inventory weren't reviewed by (Maxwell & Moore's, 2007) since they didn't specifically examine aggression in sport. Maxwell and Moore's have presented an argument against the three major measures the (Buss & Durkee, 1957) Hostility Inventory, the Buss-Perry Aggression Questionnaire, Biedermeier Athletic Aggression Inventory and provided reasoning for creating a brand new tool to look at aggressiveness in athletics. One major issue with the

(Buss & Durkee, 1957) Hostility Inventory or the (Buss & Perry, 1992) Aggression Questionnaire 16 created in 1956 and 1992, respectively, is that the age of the measures. A second issue is that the measures aren't sport specific. a number of the things presented on these scales don't apply to sports and thus would make these measures difficult to use when examining sport specific actions and behavior. By not having items that relate to sports the measures might be difficult to adequately assess aggressiveness of athletes during sport participation. The Biedermeier Athletic Aggression Inventory has been extensively employed in the research to look at aggression in sport however it's been reported that the various issues exist including questionable internal reliabilities for a few of the scales. Also, the authors report that the various prompts could appear to be associated with other traits like anxiety or the control of one's emotions. Finally, (Maxwell & Moores, 2007) state that a number of the things on Biedermeier's scale don't account for the inherent differences within the rules of sports.

Therefore, thanks to the shortcomings of the aforementioned scales (Maxwell & Moores, 2007) created a twelve-item measure, the Competitive Anger and Aggression Scale (CAAS) that assesses both the traits of anger and aggressiveness in sport. There are six items dedicated to aggression and to anger. However, when examined within the scope of this current research the six items dedicated to anger won't be included within the study. The authors created fifteen items that might potentially be included on the dimensions with wording that allowed the prompt to be applied to any number of scenarios during a type of sports and recipients of the aggressive action. If the item created wasn't applicable altogether sports or if it focused on one individual it had been dropped from contention to be included. it absolutely was this process that resulted within the final twelve item scale. The test-retest validity determined to be acceptable employing a sample of athletes (N=133) for the entire measure (.88), the aggression subscale (.84), and at last the anger subscale (.86), which were considered to be acceptable results. The authors of the CAAS utilized the Buss and Perry Aggression Questionnaire to work out the concurrent validity of the new measure with moderate correlations between the 2 scales. so as to perform the discriminant validity the authors utilized a statistical procedure of variance. The subscale scores on the Competitive Aggressiveness and Anger Scale were used because the variable quantity and so the athletes (N=44) classified by their peers as calm (n=17), neutral (n=15), and fighters (n=12) during sport participation. The MANOVA indicated that a major effect for group assignment existed and following post hoc ergo propter hoc analyses the fighter group scored

significantly more than those within the calm or neutral group. This finding is very important in this it shows that the measure is in a position to discriminate between those athletes that are considered to be aggressive during sport participation and people that don't seem to be. The findings of this study indicated that this measure is an appropriate measure of anger and aggression in sport. The authors state that further research is critical so as to support these findings.

Based on the results presented by the authors of the CAAS this measure appears to be an appropriate measure of the traits of anger and aggressiveness in an exceedingly sport specific tool. The authors have used athletes from various team sports during the creation of their new measure which should all the assessment tool to be utilized in all of the sports that are to be included within the current research. By including a sample of scholars that were previously involved in various team and individual sports the authors have shown that the measure has the power to applicable to a range of sports. Also, the measure was created to live aggressiveness, which is taken into account to be an attitude, instead of aggression in sport. The CAAS was shown to possess a high correlation with the scales of the (Buss & Perry, 1992) Aggression Questionnaire showing that the measure is a suitable measure of aggressiveness. Finally, the measure is significantly newer than any of the aforementioned measures of aggression, which suggests that the prompts on the CAAS contain wording that's current and simple for the participants to understand which has been suggested to potentially be problematic. Another aspect of this scale that's an improvement over other scales of aggression and aggressiveness is that the dimensions is just twelve items requiring less of the participant's time making participation during this research significantly easier. Therefore, this measure should be a suitable tool to utilize within the measurement of aggressiveness within the current study.

2.2.4. Aggression in sport

When examining aggression in sport researchers are attempting to further their understanding of the interior and external processes leading to this unethical behavior. Within the literature the term “aggressive athlete” has been accustomed describe individuals that are reacting to provocation or acting because the instigator by using physical or verbal force. (Donahue, Rip, & Vallerand, 2009) examined whether an individual's identity could influence the extent of aggression displayed if this idea was under fire. Findings indicated that when the concept of the

athletic identity was under a “perceived attack” the athlete was more likely to retaliate with an unethical response. (Maxwell & Visek, 2009) also checked out this idea by examining the link between aggressiveness, anger, identity and professionalization in rugby. Aggressiveness during this experiment was defined because the characteristic to become aggressive or an acceptance of the utilization of aggression. The authors’ findings indicate a relationship between aggressiveness, professionalization, being taught a way to execute unsanctioned behaviors, and aggression. It should be noted that the authors have reported that anger is usually present before an aggressive action but not necessarily a requirement. These results don't seem to be surprising since it's been theorized that top trait anger and aggressiveness are two of the foremost important factors that predict aggressive actions. These two predecessors of aggression are shown in both athletes and non-athletes in prior research.

In addition to the personality of athletes possibly influencing the extent of aggression during sports there are various other factors implicated within the research. Examining coaching behavior can give insight into the athlete’s mentality and therefore the reasoning for aggressive and assertive actions. Coaches often act because the leader for the team’s mentality and if he/she is emphasizing use of aggressive actions during competition the athlete is more likely to act in such a way. Justification provided by athletes to clarify aggressive actions is also as varied because the action itself. However, it stands to reason that one amongst most prominent factors influencing the athlete’s behavioral decisions is that the coaching staff. If a lecturer shows indifference towards aggressive actions on the a part of the athlete this could end in the idea of the athlete that he or she is positively reinforcing the act of aggression directly relating back to the social learning theory. On the opposite hand if the coaches minimize the results by either ignoring or reinforcing these actions were correlated with higher incidents of aggression in both boys and girls sports. An identical research study examined high school and club soccer teams and therefore the predictors of aggression. The primary relevant findings are that the sport strategy, determined by the coaches, and was associated with the likelihood that an athlete will aggress during play. If the coach advocated for aggressive actions during play the athlete were more likely to have interaction in such behavior. The coach’s norms and accepted behavior strongly influences the athlete’s moral decisions.

The aforementioned literature has presented evidence that aggression is becoming a significant issue at all levels of sport participation. The incidents of aggression don't seem to be limited to any specific sport specifically but after all affect nearly all sports. This finding indicates that there's a necessity for a few style of intervention strategy for the athletes. It must be mentioned that one possible outcome of an aggressive act is also injury. If an athlete is behaving in an aggressive fashion he or she is also creating a situation that would end in a private injury one that affects another individual. Therefore, it stands to reason that further investigations are warranted within this area to produce information on a way to prevent aggression during sport participation.

2.3. Sports Injuries

“Sports injuries” may be a name applied to any or all styles of damage occurring within the course of sporting activities (Willem van Meche/en, 1992). Injuries are variously defined. the foremost common definitions are supported time lost from training or competitions, or on medical treatment, defined as injuries requiring treatment by a physician. However, this could or not lead to time lost from training or competitions (Brooks & Fuller, 2006).

A considerable amount of literature has been published on sports injuries normally. These studies state numerous other ways that one may prefer to define the term sports injury. (Wilson, Caffrey, King, Casey, & Gissane, 2007) sports injury is sustained during training or competition and restricts an individual's involvement or time lost from play. Whereas, (Brooks & Fuller, 2006) states that an injury is one that forestalls a player from collaborating in an exceedingly training or match and also the injury has been there for a period greater than 24 hours.

Injury is an unfortunate risk that, in line with most coaches, athletes, and medical practitioners, is an unavoidable a part of athletics. Most athletes that participate in high level sports experience some kind of injuries during their athletic careers. The multi-event nature of track and field possesses a selected challenge to a tutor trying to forestall and treat athletic injuries because each event presents its own unique problems. "Sports injuries" are injuries that happen when playing, exercising or running. Some are from accidents. Others may result from poor training practices or improper warm up. Some athletes get injured once they aren't in proper condition. Not warming up or stretching enough before playing, running or exercising also can cause injuries. (Panagos, 2011).

2.3.1. Injuries in Athletics

Injuries in athletics are common, which has prompted investigations to check the causes, and factors that predispose athletes. The NCAA injury surveillance program began in 1988-1989 and picked up injury data for sixteen years. The program recorded approximately 182,000 injuries across a meg exposures. The creators of the program defined an exposure as one athlete participating in at some point or game of their sport (Hootman, Dick, & Agel, 2007) have presented the information from the surveillance program for fifteen sports including football, basketball, lacrosse, soccer, men's wrestling, men's athletic game, baseball and women's gymnastics, women's volleyball and softball. When examining the connection between aggression and injury it's important to own examined the extra factors which will influence occurrence rates.

The findings reported by (Hootman et al., 2007) from the NCAA indicate that injury rates were far higher during exposures in an exceedingly game than in practice, 13.8 and 4.0 injuries per 1000 exposures respectively. Also, the findings showed that athletes were more likely to receive an injury during preseason practices than during in-season or postseason. Per 1000 exposures, there have been 6.6 injuries during preseason, 2.3 during in season, and at last 1.4 during the postseason. Football was found to own the very best injury rates in both games and practice. Football practice reported 9.6 injuries per 1000 exposures and 35.6 injures in game time settings while baseball had the smallest amount of 54 injuries. Over the extent of the sixteen years of the program the results have remained relatively stable. However, the assessment has shown that the bulk of the injuries are associated with the lower extremity with ankle sprains being the foremost common injury accounting for fifteen percent of all injuries. The underlying explanation for these injuries wasn't examined by the authors, as this was a purely epidemiological study. Variety of further analyses was conducted on all the sports included within the original study. The findings all indicated that sports are relatively safe yet further preventative action have to be taken to stop the relatively small incidents of injury that occur.

2.3.2. Acute and overuse injuries in sport

(Junge & Dvorak, 2000) have defined an acute injury as an injury caused by a macro trauma or as an injury which caused a trauma, the reason being, e.g., tackling, kicking or running. (Faude, Junge, Kindermann, & Dvorak, 2006) classified a traumatic injury as an injury which was caused

by a single traumatic incident. An acute injury has also been defined as any injury or condition which did not exist prior to the date of injury occurrence (Giza, Mithöfer, Farrell, Zarins, & Gill, 2005). In many studies, an acute sports injury is defined as injury with a clear onset as a result of trauma, and which has occurred in training or competition (Arnason et al., 2004), has caused at least one day away from training and/or competitions. An acute injury has also been described as any physical injury that keeps an athlete away from at least one training session or competition, or needs a physician's care (Söderman, Alfredson, Pietilä, & Werner, 2001), (J. Orchard & Seward, 2002).

An overuse injury is defined as an injury which is caused by the consequences of repetitive micro traumas (Lüthje et al., 2007) defined an overuse injury as a pain syndrome of the musculoskeletal system appearing during physical exercise without any known trauma, disease, deformity or Animalia that have given previous symptoms. An overuse injury has also been described as an injury with an insidious onset with a gradually increasing intensity of discomfort without an obvious trauma (Arnason et al., 2004). The injury causes worsening pain during or after exercise and continuation of loading causes even worse pain and may stop exercise completely (Bennell et al., 1997),(Beck, 1998). A chronic injury has also been classified as any injury with insidious progression that existed prior to the date of the injury's occurrence or an exacerbation of a previously existing condition (Giza et al., 2005).

2.3.3. Acute and overuse injury types

2.3.3.1. Acute injuries

Sports injuries can be classified according to injury type and tissue. Acute injuries usually occur to the muscle, ligament, or skin. Bone or joint injuries are rarer, but can also be more severe (Potter, Brukner, Makdissi, Crossley, & Kiss, 2006). Cramps, strains with different grades, and contusion are common acute injuries in the muscle. Cramp is a sudden muscle contraction which is painful and may occur in any muscle, but mostly the calf. The etiology of muscle cramp is poorly understood (Maquirriain & Merello, 2007). Muscle strain is most prevalent in sudden acceleration or deceleration. Highest grade muscle tears can be very damaging. The most common strain among athletes is hamstring strain (Croisier, 2004). Contusions can result from a direct blow, especially in team sports such as soccer, football, ice hockey and basketball. The

most common site of muscle contusions is the thigh (Peterson, Junge, Chomiak, & Grafbaumann, 2000).

Ligament injuries are strains of various grades from stretched fibers to a complete ligament tear with excessive joint laxity. Ankle and knee ligament injuries in particular are common. Anterior cruciate ligament (ACL) injuries are among the most severe knee injuries, limiting training and competition time (Dugan, 2005). Moreover, severe injuries in the knee increase the risk for degenerative joint disease (Thelin, Holmberg, & Thelin, 2006). Skin injuries include abrasions and lacerations (Thelin et al., 2006). Acute tendon injury can be a sudden tear of the tendon, the rupture usually occurring in an older athlete with history of injury of the tendon. The most common acute tendons injuries are either partial or complete rupture of the Achilles and supraspinatus tendons (Kannus & Natri, 2007). Dislocations and subluxations of joint injuries can occur after trauma. The shoulder joint has the greatest range of motion of any joint in the body and as a result is particularly susceptible to dislocation and subluxation (Good & MacGillivray, 2005). Joint injuries can also result from surrounding joint capsule or ligament injuries. A bone fracture can occur from a direct blow or a fall. Soft tissue damage is often associated with fracture. Also articular cartilage defects may occur in severe joint injuries. Major nerve injuries are unusual in athletes. However, the ulnar nerve and the peroneal nerve can be injured from a direct blow. Concussion with mild traumatic brain injury can be induced by hits and blows on the head.

2.3.3.2 Overuse injuries

Overuse injuries can occur to the same tissues as acute injuries, but the pathology of these injuries is different. The most common overuse injury occurs to the tendon and is called tendinopathy. It is prevalent in the Achilles, patellar and rotator cuff tendons. There is no clear understanding of the pathology of tendinopathy (Khan, Cook, Bonar, Harcourt, & Åstrom, 1999).

Another common overuse injury among athletes is situated in the bursae. Bursae such as the subacromial bursa and greater trochanteric bursa can become irritated and inflamed. Another overuse injury prevalent among athletes is a stress fracture, which is a result of a micro fracture in bone caused by repetitive physical loading (Bennell, Malcolm, Thomas, Wark, & Brukner, 1996), (Iwamoto & Takeda, 2003), (Snyder, Koester, & Dunn, 2006). The most common stress

fractures occur to the tibia, metatarsals, fibula, tarsal navicular and femur .Among ballet dancers, figure skaters and gymnasts repetitive bone stress in the spine may lead to a spondylolysis. Although upper limb stress fractures are less common than those of the lower limbs, stress fractures occur in sports where athletes are dominantly using an upper limb such as in swimming and tennis (Brukner, 1998).

Overuse injuries in the muscle are focal tissue thickening, chronic compartment syndromes and muscle soreness. Overuse damage to muscle fibers are a result of repetitive micro trauma. Focal areas, such as tissue thickening, can be palpated and can cause local pain. Overuse damage can also negatively affect rapid contraction and relaxation of the muscle. Chronic compartment syndrome is the most prevalent in the lower leg(Warden, Burr, & Brukner, 2006). Compartment syndrome can also be located in the forearm in, e.g., tennis players. Intra compartmental pressure increases and may cause local muscle swelling. The thigh fascia prevents expansion of the muscle and impairs the blood supply. Muscle soreness, known as delayed onset muscle soreness, is typical 24 to 48 hours after unaccustomed physical activity. The etiology of delayed onset muscle soreness is still poorly understood (Fritz et al., 2011). Joint overuses injuries are inflammatory changes associated with repetitive loading, and are known as synovitis or capsulitis. Examples of such injuries are sinus tarsi syndrome of the subtalar joint and synovitis of the hip joint.

Skin overuse injuries are blisters and calluses. A blister can occur at any site of friction with an external source, such as shoes or sports equipment. Dermatologic complaints are common among athletes, for example long-distance runners. Nerve entrapment syndromes occur as a result of swelling in the surrounding soft tissues. Examples of the latter overuse injuries are entrapments in the peroneal nerve, suprascapular nerve, posterior tibia nerve at the tarsal tunnel and interdigital nerves, a condition known as Morton´s neuroma. Nerve entrapment represents an uncommon but important cause of lower limb pain, especially among runners (Peck, Finnoff, & Smith, 2010).

2.3.4. Causes and Management of Overuse Injuries

According to (Bauman et al., 2003) Overuse injuries are the most common type of injury to runners. They result from repeated stress to the tissues involved due to repetitive episodes of trauma overwhelming the body's ability to repair itself. Overuse injuries in runners usually begin

with pain and stiffness. Depending on the severity, the runner will suffer pain and stiffness at the beginning, during or after the run, or a combination of these. Continuous pain and stiffness will eventually lead to the cessation of running. The majority of the overuse injury risk factor studies have been based on competitive athletes.

2.4. Injury Incidence

A study by (Emery, McKay, Campbell, & Peters, 2009) suggests that incidence of injury pertains to the number of new injuries that occur in a population at risk over a period of time or the number of new injuries during a period divided by the total number of sportspeople at that period. It is also pointed out by (van Mechelen, Hlobil, & Kemper, 1992) that the incidence of injury can also be referred to as the injury rate. It determines the number of new injuries in a specific period divided by the total number of players exposed to injury (the population at risk). Therefore the risk per player per year is equal to the number of new injuries during one year among the total population at risk.

According to (Feil, Newell, Minogue, & Paessler, 2011) there is an expectancy that a greater number of injuries occur in training as teams are likely to have six times more training sessions than games with more participants likely to be involved in training sessions than in games. The research from the study shows that out of the 471 injuries recorded 276 happened during a game with the remaining 195 in training. However, according to Murphy et al., (2012) in which they tracked the injuries of 851 GAA players over four years they found that of the 1014 injuries recorded, 397 occurred in training, 553 in games and 64 other. Evidence was also provided by to show which injury occurred the most in each month during the season.

2.4.1. Returning an Injured Athlete to Competition

Athletes should be free of injury symptoms before you allow them to return to competition. There is a natural temptation on the part of the athlete, coach, and sometimes, parents to get the athlete back into competition and training too soon. When dealing with young athletes who in many cases have never experienced an athletic injury before, it is your responsibility as coach to be the voice of reason when there is not an athletic trainer on staff to help make those decisions. The athlete should be asked daily, “How does your pain rate on a scale of 1 to 10, with 10 being the worst?” When the response is 0, a gradual re-entry to training can begin. Until that time,

injured athletes should be involved in a rehabilitation program and other fitness activities to maintain their conditioning. Those fitness activities can include cycling (or stationary bike), swimming, or running in deep water with a life jacket if those activities do not stress the injury. When an athlete attests to 0-pain and can pass tests that assess the function of the injured body part, he or she is ready to return to competition (Barton, Levinger, Crossley, Webster, & Menz, 2012).

2.4.2. Principles of Injury Prevention

In recent years, there has been an abundance of literature on the principles of injury prevention. The IAAF (2012) suggests principles to adhere to prevent injury, which are as follows

- Physical conditioning - strength, balance, flexibility, endurance
- Appropriate training methods - Exercises that include strength, relaxation, and flexibility specifically geared to the demands made on the body of that sport, i.e. relaxation, strength, flexibility, progression.
- Rest and recovery- adequate sleep in order to avoid overexertion and fatigue.
- Appropriate equipment- properly fitted shoes, equipment must meet biomechanical requirements of the sport.

The following principles of injury prevention were also identified by Kent's Sports Development Unit (2012)

Warm up/cool down- a warm up should allow muscles and tendons to become more elastic, which enables muscles to be stretched further without the fear of injury. While a cool down helps to stabilize blood pressure and lower heart rate to help the body returns to its resting state.

Flexibility- poor flexibility can result in awkward or uncoordinated movements which may lead to injury.

Recovery- following the advice of a medical practitioner will aid recovery and a return to performing in the recommended time frame, will help to minimize the chance of the original injury re-occurring. It is also advised to include adequate rest periods in between trainings and games to aid recovery.

Muscle balance- among stabilizers and mobilisers i.e. muscle groups that work alongside each other, e.g. hamstrings and quadriceps.

Withdraw from participation if injured- it is stated that players play through the pain of injury in the fear of losing their place in the team for the future.

It is also stressed by (Feil et al., 2011) that allowing adequate time to recover from injury can help reduce the incidence of non-contact injuries. In addition, (Choi et al., 2018) says that returning early from an injury increases the chances of a re-occurrence or developing a chronic problem that will lead to a longer recovery.

2.4.3. Role of Coaches and Problems for the Implementation of Injury Prevention

(M. Anderson, Hopkins, Roberts, & Pyne, 2008) stated that coaches do not typically have the background in human anatomy and physiology, health and nutrition, injury prevention, assessment, management and rehabilitation or first aid and emergency care. Therefore, coaches should be updated in this area mainly on cardiopulmonary resuscitation and emergency first aid. Coaches should recognize their contribution to the health, safety and success of the athlete. The coach occupies a critical position in the organizational structure of preventive effort. As a supervisor of the athlete in practice and competition, the coach must recognize potentially risky situations and either avoid them or develop strategies to minimize their danger (Schulz et al., 2004). This would be achieved by properly supervising the conditioning program and planning the activities so as not to predispose the athlete to excessive fatigue or injury.

In addition, education on the safety and emergency policies and procedures, health care insurance coverage, review of medical forms, policies and procedures to ensure compliance are the duties of the team medical personnel. The role of medical practitioners in injury prevention is paramount and should perform a range of activities such as the examination and review of preseason physical examinations and conditioning programs, the provision of first aid, diagnosis, treatment, rehabilitation and return to training. The team therapist should be present at training and competition. Moreover the club leader's responsibility encompasses the development; implementation and monitoring of comprehensive sport safety .Few studies have been done in the domain of safety policies in the clubs. In a study conducted by (Casey, Harvey, Eime, &

Payne, 2012) to investigate the factors that influence sport safety policies and practice, lack of qualified personnel (referees, trainers and medical support) was observed to have led to insufficiencies that resulted in the rules of the game not always being enforced and some athletes not receiving adequate treatment. In addition, participants in the study suggested that financial constraints led to their inability to employ qualified trainers or provide adequate club facilities. They also complained of shortage of volunteers, which led to a situation whereby the available staff were unable to adequately render services necessary for the prevention of injury.

2.4.4. Conceptual framework

This section was containing the theoretical framework for the study. As it is indicated the general objective of this study was to assess association of aggression with its component as a predictor of Athlete's injury. To achieve this goal, the following conceptual framework was developed from a review of literature on aggression and injury of athletes.

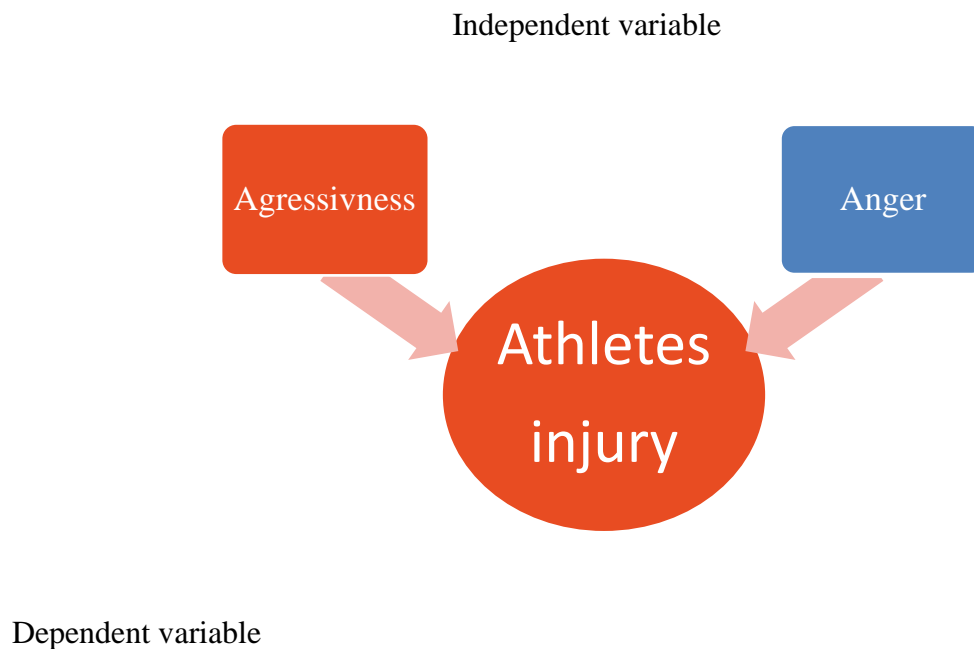


Figure 2. 1 A diagram of the conceptual framework

Independent variables were focused on aggression which may be the cause of injury.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Description of the study area

This study was conducted in Oromia special zone surrounding Finfinne athletics clubs. This founds in Central part of Ethiopia, Oromia Special Zone surrounding area Finfinne. It is created 2012G.c. This zone is surrounding the capital city of Ethiopia Finfinne. The main reason for created this special zone was for the cooperation and control of urban sprawl of the city. The study areas were (Galan, Dukam, Holeta, Sabeta, Legaxafo, Sululta and Burayu). Oromia is the source of many athletes and the region is known by contributing so many athletes than other regions of the country. Due to Geographical location, altitudes and temperature the region have the access for development of athletes.

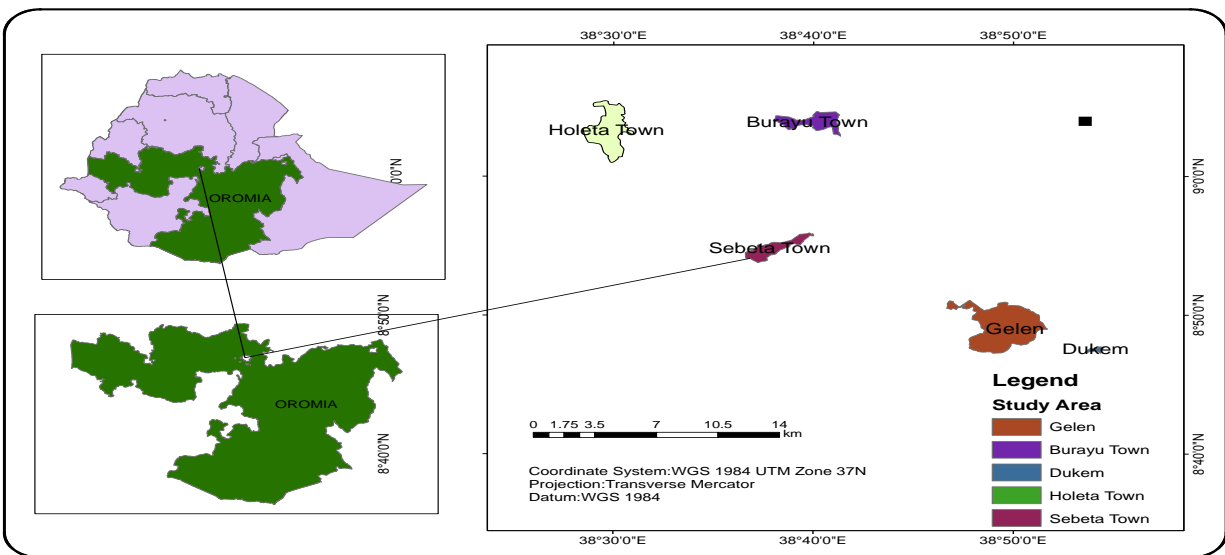


Figure 3. 1 Map of Study area, Source: (<https://www.egis.com>)

3.2. The study design

Cross-sectional study design was employed in which quantitative and qualitative approach to assess the association of aggression and injury rate of field event athletes: in case of Oromia special zone surrounding Finfinne athletics clubs. Research design refers to the plan of action that links the philosophical assumptions to specific methods (Kumar, 2011). In addition, the goal

of cross sectional research is to describe systematically a situation, problem, phenomenon, service or program, or provides information about, say, the living conditions of a community, or describes attitudes towards an issue some aspect of a phenomenon. To this end, among many designs of research, cross sectional method was employed in this research as it can provide sufficient information regarding to the subject.

3.3. Sources of data

The Primary source of data was used. This primary source of data was obtained through questionnaires from athletes found in Oromia special zone surrounding Finfinne athletics clubs.

3.4. The study population

The domain of this study was field event athletes of selected Athletics clubs of Oromia special zone surrounding Finfinne which includes athletes. From that entire Oromia special zone surrounding Finfinne seven athletics clubs only three clubs have field event athletes. This clubs are athletics clubs of Burayu, legaxafo and Sebata.

3.5. Sampling technique and sample size

Census sampling technique was employed to determine the samples. Determining sample is very important issue because sample that is too large may be waste time, resources and money while sample too small may lead to inaccurate results.

Table 3. 1 Population, Sampling technique and sample size of athletes from each clubs

Athletics club	Population				Samples		Sampling technique
	Athletes		Coaches		Athletes	Coaches	
	M	F	M	F			
Burayu	8	8	2	-	16	2	census sampling
Sebata	8	8	2	-	16	2	
Legaxafo	7	5	2	-	12	2	
Total	23	21		-	44	6	

3.6. Data collection instrument

3.6.1 Questionnaires

According to (Kumar, 1996) questionnaire is a written list of questions, the answers to which are recorded by respondents. This study was employed standard questionnaire for measuring aggression and injury. Which utilized a pre-validated survey from (Maxwell & Moores, 2007) ,who have created a twelve-item measure, the Competitive Anger and Aggression Scale (CAAS) that assesses both the traits of anger and aggressiveness in sport. There are six items dedicated to aggression and to anger. The test-retest validity was determined to be acceptable using a sample of athletes (N=133) for the whole measure (.88), the aggression subscale (.84), and finally the anger subscale (.86), which were considered to be acceptable results. The authors of the CAAS utilized the Buss and Perry Aggression Questionnaire to determine the concurrent validity of the new measure with moderate correlations between the two scales. In order to perform the discriminant validity the authors utilized a multivariate analysis of variance. The subscale scores on the Competitive Aggressiveness and Anger Scale were used as the independent variable and then the athletes (N=44) classified by their peers as calm (n=17), neutral (n=15), and fighters (n=12) during sport participation. The findings of this study indicated that this measure is an acceptable measure of anger and aggression in sport.

A pilot study was also conducted for a questionnaire regarding injury on one club which included fifteen (15) athletes from athletic club to ascertain the reliability and validity of the research instruments. Accordingly, Holata athletics clubs was taken. The objectives of the pilot study was to: (1) assess the practicality and appropriateness of the questionnaire and provide an indication whether the item needs further refinement; (2) obtain advisors suggestions and views on the items; (3) determine the level of difficulty of the items; (eliminate poor wording, check clarity the questionnaires items and instruction) and (4) assess the reliability of the questionnaire.

In this study both contents were critically examined by researcher, participants of the pilot study. An instrument is valid if it measures what is supposed to measure. Accordingly the content validity was assured. To check the reliability of the questionnaires in the study, Cronbach alpha was computed using SPSS. Cronbach's alpha coefficient is the commonly considered as an "index of reliability associated with the variation accounted for the true score of the underlying

construct". According to Hair, Babin, Anderson and Tatham (2010), an acceptable reliability coefficient is greater than or equal to 0.70. The resulting Cronbach's alpha coefficients value in this study was 0.792.

The questionnaires for the athletes were translated English into Afaan Oromo language for the purpose of the respondent's convenience and easy understanding. This is because the problem was clearly discussed and explained by the respondents.

3.6.2. Interviews

The interview was prepared to collect data supportive to the questionnaire. The researcher used face-to-face interview with coaches of field event athletes in order to gain adequate information significant to a questionnaire. The researcher prepared interview questionnaires for coaches.

3.7. Data collection procedure

First of all, the researcher was get permission from Jimma University and those selected Oromia special zone surrounding Finfinne athletics clubs to collect data from the athletes to get the information. The questionnaires were translated to Afaan Oromo and Amharic language. All the participants of the study were informed about the purpose of the study before the questionnaires distributed. Moreover, during the administration of the questionnaire further clarifications were given wherever question was raised by respondents. The questionnaires were distributed and collected from the respondents within the given time.

3.8. Method of Data Analysis

In order to analyze the gathered data the researcher was used descriptive and inferential statistics as a tool of data analysis. Therefore, the collected data was organize, tabulated, coded and then analyzed by descriptive statistics, such as percentage and frequency to analyze the current status of athlete's aggression, injury and demographic status of the athletes. Pearson correlation analysis was used to analyze the relationship between aggression and injury of field event athletes in some selected Oromia special zone surrounding Finfinne athletics clubs. The statistical tool used in the above processes was SPSS v20.

3.9. Identification of Variables

3.9.1. Independent Variable

Athletes Aggression was considered as an independent variable even though there are a variety of factors which causes injury the researcher wanted to look into the relationship between aggression and injury due to a limited amount of time and resources.

3.9.2. Dependent Variable

Athlete's injury was taken as dependent variable throughout this study

3.10. Ethical Issues and Code of Conduct

The study was dealt with the ethical issues; it will protect the privacy of research participants and make guarantees and confidentiality in risk of harm as a result of their participation. Therefore, the study was conducted according to Jimma University rules, policies and Codes relating to research ethics. The protocol was approved by the University guidelines, and written consent was given and inform to the concerned bodies. Permission was obtained from the Oromia special zone surrounding Finfinne Athletics clubs to have the necessary data from the clubs. Then an informed verbal consent was received from each study subjects and anyone who was not willing to take part in the study had full right to do so.

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter presents the analysis and interpretation of the data gathered by different instruments, mainly questionnaire. The summary of the quantitative data had been presented by the use of tables that incorporates various statistical tools. Similarly, the qualitative data was organized according to the themes, analyzed and used to strengthen or to elaborate more of the quantitative one.

As mentioned above, among various data collecting instruments questionnaire was used to collect necessary information for this study. Thus, a total of 44 questionnaire papers were distributed to those selected Oromia special zone surrounding Finfinne athletics clubs for field event athletes. So, properly filled and returned papers were 44 (100 %).

4.1. Demographic characteristics of respondents (Athletes)

Table 4. 1 Demographic characteristic of respondents (Athletes)

No.	Question	Characteristics	Athletes	
			Frequency	Percentage
1	Club	Burayu	16	36.4
		Sebeta	16	36.4
		Lagaxafo	12	27.3
		Total	44	100.0
2	Event	Jumping	23	52.3
		Throwing	21	47.7
		Total	44	100.0
3	Sex	Male	25	56.8
		Female	19	43.2
		Total	44	100.0
4	Age	16-19	25.0	25.0
		20-25	45.5	45.5
		26 And Above	29.5	29.5
		Total	100.0	100.0
5	Educational Level	Elementary	4	9.1
		Secondary	7	15.9
		Certificate	14	31.8
		Diploma	10	22.7
		Degree	7	15.9
		Masters And Above	2	4.5
		Total	44	100.0
6	Marital Status	Unmarried	26	59.1
		Married	16	36.4
		Divorce	2	4.5
		Total	44	100.0
7	Experience	1-2 Years	15	34.1
		3-4 Years	23	52.3
		5-6 Years	4	9.1
		7 Years And Above	2	4.5
		Total	44	100.0

Table 1, item 1, indicates that athletes from Burayu and Sebeta athletics clubs were 16 each (36.4%) and from Legaxafo athletics club 12 (27.3%) respectively. This implies that majority of the athletes were from Burayu and Sebeta athletics clubs. Table 1, item 2, presents athletes discipline of respondents shows that 23 (52.3 %) were jumping athletes and 21 (47.7 %) are throwing athletes respectively. The above result had the implication jumping athletes were higher than that of throwing athletes. Table 1, item 3, confirms that the out puts of Athletes age table demonstrates that 16-18 years 28 (23.3%), 19-21 years 78 (65%) and 22-25 years 14 (11.7%) year old. The above result had the implication of more than half of athletes age were ranges from 19-21 years old. They could mean that athletes were found under more functional age.

Table 3, item 4, show that athletes experience in the club reported that 1-2 years 23 (19.2%), 3-4 years 69 (57.5%), 5-6 years 27 (22.5%) and 6-9 years' experience of athletes are 1 (0.8%). Here more than half athletes experience in the club having three and four years have been more than three up to four years of the running in the club. Table 3, item 5, Presents educational level of respondents, shows that 38 (31.7%), 67 (55.8%), 14(11.7%) and 1(.8%) of athletes educational status lies on 1-8 grade level,9-12 grade level, diploma, and degree holders. Large amount of athletes found to be attending 9-12 grade level and grade 1-8 class attended. One can easy draw a conclusion that majority of second division athletes runner were ranging from elementary up to secondary school students and few tertiary students.

The age distribution and participation of females in athletes needs consideration in athletics clubs of Oromia special zone surrounding Finfinnee. It indicates that most of the athletes were young, which is in the productive and high opportunity for physically enduring. Then, it needs great attention to retain those youngsters to be saved from injuries. Most of the athletes were Stage 4 specialization and stage 5 Performance. This implies all of the athlete's physical, technical, tactical and mental capacities should be fully established with the focus shifting to the optimization of performance level. Generally most of athletes in Oromia special zone surrounding Finfinnee athletics clubs can now be trained to peak for specific competitions and major events; whether those competitions be the Olympics, a regional competition or a local meeting or event; with each aspect of training individualized.

4.2. Demographic Characteristics of Respondents (Coaches)

Table 4. 2Demographic characteristics of respondents (Coaches)

No.	Item	Characteristics	Frequency	Percentage
1.	Sex	Male	6	100
		Female	-	-
		Total	6	100.0
2	Age	24-29	3	50.0
		30-35	2	33.4
		36-45	1	16.6
		Total	6	100.0
3.	Experience	3-5	1	16.6
		6-9	4	66.8
		10 and above	1	16.6
		Total	6	100.0
4.	Educational level	Diploma	1	16.6
		First degree	3	50.0
		Masters	2	33.4
		Total	6	100.0
5.	License Level	First level	2	33.4
		Second level	3	50.0
		Third level	1	16.6
		Total	6	100.0

Table 4.2, item 1, indicates that the number of male coaches are 6 (100%) and female ones are 0 (0%) respectively. This implies that all of the coaches' in the year 2019/20 at Oromia Special Zone Surrounding Finfinnee athletics clubs of field event athletes were males. To these effects, one could say that the clubs were dominated by male coaches. Therefore, there was a limitation of female coach in Oromia Special Zone Surrounding Finfinnee athletics clubs of field event athlete.

Table 4.2, item 2, Suggests the output of coach age table that demonstrates 3 (50.0%),2 (33.4%) and 1 (16.6%) of the coach age ranged from 24-29 years, 30-35years, 36-45 years respectively. The above result has the implication that more than half of the coaches were ranged from 30-35 years old. These indicate that coaches were found under more functional age.

Table 4.2, item 3, depicts that the coaching experience of participants' coaches is 3-5 years 1 (16.6%), 6-9 years 4 (66.8%), 10 years and above 1 (16.6%) respectively. Oromia Special Zone Surrounding Finffinne athletics club coaches confirmed that the majority of coaches coaching experience in the athletics clubs were more than 6 years, whereas few of them had registered less than 6 years. Anyone could understand that majority of coaches who were presently coaching at the Oromia Special Zone Surrounding Finffinne athletics have sufficient coaching experience.

Table 4.2, item 4, Demonstrates educational level of the coaches depicts that 1 (16.6%), 3 (50.0%), and 2 (16.6 %), of coaches educational status were diploma, degree, and masters respectively. Majority of coaches currently coach at Oromia Special Zone Surrounding Finffinne athletics clubs were diploma holders, while a few of them have first degree and second degree holders. As a matter of their educational status, coaches can read, write, listen and speak with their Athletes. Even if their educational status had a limitation, one could conclude as they were enough for the status of coaching.

Table 4.2, item 5, The output of Oromia Special Zone Surrounding Finffinne athletics clubs coaching license shows that 2 (33.4%), 3 (50.0%), 1 (16.6%), of coaches had licensed of the first level, second level and third level each respectively.

Majority of coaches have a license at the first level, while a few coaches are licensed at the second level and the third level. The coaches of Oromia Special Zone Surrounding Finffinne athletics clubs coaching license was sufficient for coaching field event athletics clubs' at the study area.

4.3. Descriptive statistics for respondents on the aggression level of field event athletes

Table 4. 3 Frequency and Percentage of respondent field event athletes on the current status of aggression level

NO	Item	Almost never		Occasionally		Sometimes		Quite often		Almost always	
		F	%	F	%	F	%	F	%	F	%
1	I become irritable if I am disadvantaged during a match	3	6.8	5	11.4	11	25	18	40.9	7	15.9
2	I feel bitter toward my opponent if I lose	2	4.5	7	15.9	12	27.3	21	47.7	2	4.5
3	I get mad when I lose points	1	2.3	6	13.6	22	50.0	10	22.7	5	11.4
4	I show my irritation when frustrated during a game	3	6.8	5	11.4	15	34.1	15	34.1	6	13.6
5	I find it difficult to control my temper during a match	4	9.1	4	9.1	13	29.5	22	50.0	1	2.3
6	Official's mistakes make me angry	1	2.3	3	6.8	15	34.1	18	40.9	7	15.9
7	Violent behavior, directed toward an opponent, is acceptable	16	36.4	10	22.7	9	20.5	4	9.1	5	11.4
8	It is acceptable to use illegal physical force to gain an advantage	1	2.3	9	20.5	11	25.0	19	43.2	4	9.1
9	I taunt my opponents to make them lose concentration	5	11.4	6	13.6	8	18.2	21	47.7	4	9.1
10	I use excessive force to gain an advantage	3	6.8	8	18.2	13	29.5	12	27.3	8	18.2
11	I verbally insult opponents to distract them	1	2.3	7	15.9	17	38.6	10	22.7	9	20.5
12	Opponents accept a certain degree of abuse	5	11.4	10	22.7	20	45.5	2	4.5	7	15.9

Table 4.2, item 1, indicates that, athletes become irritable if they are disadvantaged during a match was Almost never 3(6.8%), Occasionally 4(11.4%), Sometimes 11(25%), Quite often 18 (40.9%), and 7(15.9%) almost always respectively. This result shows that athletes in some

selected Oromia special zone athletics clubs were aggressive at a scale of quite often 40%. Table 4.2, item 2, shows that whether or not athletes feel bitter toward their opponent if they lose, was replied as almost never 2(4.5%), Occasionally 7(15.9%), Sometimes 12(27.3%), Quite often 21(47.7%), and 2(4.5%) almost always respectively. This shows that athletes feel bitter towards their opponent at a scale of quite often 47.7%.

Table 4.2, item 3, indicates, whether or not athletes get mad when they lose points was answered as Almost never 1(2.3%), Occasionally 6(13.6%), Sometimes 22(50%), Quite often 10(22.7%), and 5(11.4%) almost always respectively. This confirms that athletes sometimes (50%) show their aggression in some selected Oromia special zone athletics clubs. Table 4.2, item 4, demonstrates, whether athletes show their irritation when frustrated during a game was replied as Almost never 3(6.8%), Occasionally 5(11.4%), Sometimes 15(34.1%), Quite often 15 (34.1%), and 6(13.6%) almost always respectively. This result shows that majority of the athletes show it sometimes (34.1%) in those some selected Oromia special zone athletics clubs.

Table 4.2, item 5, presents, if athletes find it difficult to control their temper during a match was replied as Almost never 4(9.1%), Occasionally 4(9.1%), Sometimes 13(29.5%), Quite often 22 (50%), and 1(2.3%) almost always respectively. This implies that athletes found in some selected Oromia special zone athletics clubs were getting difficult to control their temper quite often (50%) when important issues arise. Table 4.2, item 6, shows, whether Official's mistakes make them angry was replied as Almost never 1(2.3%), Occasionally 3(6.8%), Sometimes 15(34.1%), Quite often 18 (40.9%), and 7(15.9%) almost always respectively. This implies that athletes in some selected Oromia special zone athletics clubs angry quite often (40.9) due to officials mistakes.

Table 4.2, item 7, presents, whether Violent behavior, directed toward an opponent, is acceptable was replied as Almost never 16(36.4%), Occasionally 10(22.7%), Sometimes 9(20.5%), Quite often 4 (9.1%), and 5(11.4%) almost always respectively. This result shows that athletes in some selected Oromia special zone athletics club accept violent behavior almost never (36.4%). Table 4.2, item 8, shows that whether It is acceptable to use illegal physical force to gain an advantage was answered as Almost never 1(2.3%), Occasionally 9(20.5%), Sometimes 11(25%), Quite often 19 (43.2%), and 4(9.1%) almost always respectively. This indicates that athletes found in

some selected Oromia special zone athletics clubs were used illegal physical force to gain an advantage quite often (43.2%).

Table 4.2, item 9 Indicates whether taunting their opponents to make them lose concentration was replied as Almost never 5(11.4%), Occasionally 6(13.6%), Sometimes 8(18.2%), Quite often 21 (47.7%), and 4(9.1%) almost always respectively. This result shows that athletes found in some selected Oromia special zone athletics clubs were used taunt to make their opponents lose concentration quite often (47.7%). Table 4.2, item 10, presents whether the use of excessive force to gain an advantage was replied as Almost never 3(6.8%), Occasionally 8(18.2%), Sometimes 13(29.5%), Quite often 12 (27.3%), and 8(18.2%) almost always respectively. This implies that majority of athletes in some selected Oromia special zone athletics clubs were uses excessive force to gain an advantage sometimes (29.5%).

Considering quantitative findings qualitative response suggests that:-

The athletes have sometimes sustained aggressive tendencies, most of this aggressive behaviors were verbally insulting opponents due to the fact that they may need to control their opponents attention but there was not as such physical aggression observed and sometimes athletes may also act aggressively in order to get an advantage.

Table 4.2, item 11, shows whether athletes verbally insult opponents to distract them was replied as Almost never 1(2.3%), Occasionally 7(15.9%), Sometimes 17(38.6%), Quite often 10 (22.7%), and 9(20.5%) almost always respectively. This implies that athletes found in some selected Oromia special zone athletics clubs were verbally insult their opponents to distract them sometimes (38.6%). Table 4.2, item 12, presents athletes Opponents accept a certain degree of abuse was replied as Almost never 5(11.4%), Occasionally 10(22.7%), Sometimes 20(45.5%), Quite often 2 (4.5%), and 7(15.9%) almost always respectively. This show that athletes found in some selected Oromia special zone athletics clubs were accept some degree of abuse sometimes (45.5%).

4.4. Descriptive statistics for respondents on the injury of field event athletes

Table 4. 4 Frequency and Percentage of respondent of field event athletes on the current status of injury

NO	Item	Yes		No	
		F	%	F	%
1	Have you had an acute sports injury during the past 12 months?	40	90.9	4	9.1
2	Have you had an overuse sports injury during the past 12 months?	35	79.5	9	20.5
3	Are you absent from training or competition because of the injury?	42	95.5	2	4.5
4	Have you taken medical treatment for the injury you have encountered?	30	68.2	14	31.8
5	Have you previously sustained the same injury in the same anatomical site during your sports	38	86.4	6	13.6
6	Did you get any instructions from a doctor /physiotherapist and coaches about rehabilitation of the injury on the first occasion before it recurred?	25	56.8	19	43.2
7	Are you injured on natural surfaces while training or competition?	37	84.1	7	15.9
8	Are you injured on artificial surface while training or competition?	3	6.8	41	93.2
9	Was the injury sustained in a situation involving another athlete?	41	93.2	3	6.8
10	Are you injured on natural surfaces while training or competition?	36	81.8	8	18.2
11	Did the injury occur during training/playing in the open air?	5	11.4	39	88.6
12	Did the injury occur during training/playing in an indoors surface?	43	97.7	1	2.3
13	Do you think external factors (for example surface, venue or weather) were connected with the injury?	38	86.4	6	13.6
14	Did the injury affect your performance?	3	6.8	41	93.2
15	Did the injury located in the head area of your anatomical site?	2	4.7	41	95.3
16	Did the injury located in the thoracic area of your anatomical site?	37	84.1	7	15.9
17	Was the injury type musculoskeletal?	43	97.7	1	2.3

Table 4.3, item 1, indicates, whether athletes had an acute sports injury during the past 12 months was replied Yes 40(90.9%) and No 4(9.1%) respectively. This result shows that majority

of athletes found in some selected Oromia special zone athletics clubs were had an acute sports injury at (90.9%). Table 4.3, item 2, shows whether athletes had an overuse sports injury during the past 12 months? This was replied as Yes 35(79.5%) and No 9(20.5%) respectively. This result shows that higher number of athletes found in some selected Oromia special zone athletics clubs were had an overuse sports injury at 79.5%.

Table 4.3, item 3, indicates whether athletes were absent from training or competition because of the injury? The reply was Yes 42(95.5%) and No 2(4.5%) respectively. This result implies that athletes found in some selected Oromia special zone athletics club were absent from training or completion due to the injury at 95.5%. Table 4.3, item 4, implies whether athletes taken medical treatment for the injury they have encountered? This was answered as Yes 30(68.2%) and No 14(31.8%) respectively. This result shows that athletes found in some selected Oromia special zone athletics club were taken medical treatment 68.2%.

Table 4.3, item 5, shows, if athletes sustained the same injury in the same anatomical site during their sports career was replied as Yes 38(86.4%) and No 6(13.6%) respectively. This result shows that most athletes in some selected Oromia special zone athletics clubs were sustained same injury on the previously injured site of their body. Table 4.3, item 6, indicates, whether athletes get any instructions from a doctor /physiotherapist and coaches about rehabilitation of the injury on the first occasion before it recurred? This was answered as Yes 25(56.8%) and No 19(43.2%) respectively. This result shows that athletes in some selected Oromia special zone athletics clubs were taken instructions at 56.8%.

In addition to the above results some of the interviewed said that:-

(Code: B1, April 13, 2020) yes, our athletes often sustained injuries during training and sometimes during competition time. These injuries occur because they fail to warm up before moving on strong exercises. They were confirming that the training load, uncomfortable equipment and the change of weather condition during training and competition were the main causes of injuries. Furthermore our athletes often sustain injuries such as sprain of joint and bone cracking.

Table 4.3, item 7, shows if the athletes were injured on natural surfaces while training or competition? Replied as Yes 37(84.1%) and No 7(15.9%) respectively. This result shows that

athletes found in some selected Oromia special zone athletics clubs were injured on the natural surfaces at 84.1%. Table 4.3, item 8, implies whether athletes were injured on artificial surface while training or competition? was replied as Yes 3(6.8%) and No 41(93.2%) respectively. This result shows that majority of the athletes found in some selected Oromia special zone athletics clubs were not injured on the artificial ground at 93.2%.

Table 4.3, item 9, shows whether the injury sustained in a situation involving another athlete? This was answered as Yes 41(93.2%) and No 3(6.8%) respectively. This result shows that majority of the athletes found in some selected Oromia special zone athletics clubs were sustained injury while involving another athlete at 93.2%. Table 4.3, item 10, indicates, whether athlete were injured on natural surfaces while training or competition? This was responded as Yes 36(81.8%) and No 8(18.2%) respectively. This result shows that majority of the athletes found in some selected Oromia special zone athletics clubs were injured on natural surfaces at 81.8%.

Table 4.3, item 11, shows whether the injury the injury occurred during training/playing in the open air? This was replied as Yes 5(11.4%) and No 39(88.6%) respectively. This result shows that higher number of athletes found in some selected Oromia special zone athletics clubs were not injured in the open air at 88.6%. Table 4.3, item 12, and indicates whether the injury occurred during training/playing in an indoors surface? This was responded as Yes 43(97.7%) and No 1(2.3%) respectively. This result shows that majority of the athletes found in some selected Oromia special zone athletics club were not injured in the indoor surface at 97.7%.

Table 4.3, item 13, shows if external factors (for example surface, venue or weather) were connected with the injury? This was replied as Yes 38(86.4%) and No 6(13.6%) respectively. This result shows that majority of athletes found in Oromia special zone athletics clubs were think that the injury was due to some other external factors at 86.4%. Table 4.3, item 14, shows whether the injury was affected their performance? This was responded as Yes 3(6.8%) and No 41(93.2%) respectively. This result shows that the performance of majority of athletes found in some selected Oromia special zone athletics clubs were not affected by the injury at 93.2%.

Table 4.3, item 15 implies, whether the injury was located in the head area of their anatomical site? This was answered as Yes 2(4.7%) and No 41(95.3%) respectively. This result shows that the injury of majority of athletes found in some selected Oromia special zone athletics club managers were not in head area of their anatomical site 95.3%.

Table 4.3, item 16, shows, whether the injury was located in the thoracic area of their anatomical site? Was Yes 37(84.1%) and No 7(15.9%) respectively. This result shows that higher number of athletes found in Oromia special zone athletics clubs were located in their thoracic area at 84.1%.

Table 4.3, item 17, indicates whether injury type was musculoskeletal? This was replied as Yes 43(97.7%) and No 1(2.3%) respectively. This result shows that majority of athletes found in some selected Oromia special zone athletics clubs were injured a musculoskeletal type of injury at 97.7%.

4.5. Correlation results between athletes’ aggression, injury and differences across Clubs and Events

Table 4. 5 Correlation results between athletes’ aggression, injury and differences across Clubs and Events

Correlations								
Variables		Club	Event	Sex	Age	Experi ence	Marital	Educatio nal
Aggress ion	Pearson Correlation	.010	-.123	-.337	-.039	.012	-.095	-.240
	Sig. (2-tailed)	.950	.428	.025	.799	.939	.541	.117
	N	44	44	44	44	44	44	44
Injury	Pearson Correlation	-.163	.173	.363	-.127	-.037	.025	.039
	Sig. (2-tailed)	.290	.262	.016	.412	.809	.874	.802
	N	44	44	44	44	44	44	44

The results of analysis between aggression and clubs $0.95 > 0.05$, aggression and event $0.28 > 0.05$, aggression and sex $0.025 < 0.05$, aggression and $0.799 > 0.05$, aggression and experience $0.939 > 0.05$, aggression and marital status $0.541 > 0.05$, aggression and educational status $0.117 > 0.05$.

Results of the analysis between injury and club $0.290 > 0.05$, injury and event $0.262 > 0.05$, injury and sex $0.016 < 0.05$, injury and age $0.412 > 0.05$, injury and experience $0.809 > 0.05$, injury and marital status $0.874 > 0.05$, injury and educational status $0.802 > 0.05$. From the above result of analysis only sex was significant for the reported aggression and injury.

4.6. Correlation results between athletes' aggression and injury

Table 4. 6 Correlation results of athletes' aggression and injury

Aggression	Correlations	Injury
Anger	Pearson Correlation	.058
	Sig. (2-tailed)	.350
Aggressiveness	Pearson Correlation	-.024
	Sig. (2-tailed)	.694

Results of the analysis between aggression and injury of athletes are $0.50 > 0.05$ with anger and $0.694 > 0.05$ with aggressiveness at 95% confidence level or the relationship between aggression and injury is insignificant in general.

4.7. Discussions

Aggressive behaviors may potentially place both the intended target and the perpetrator at an increased risk for injury. It is likely that the personality traits that influence a person's responses may guide the behavior that the athlete displays during sport. The Frustration-Aggression Theory, presented by (Gustafson, 1989), and states that when an athlete is unable to achieve a specific goal that he or she is aiming for, such as scoring a goal, or winning a competition, frustration will result. It is these feelings of frustration that results in an emotional response

which can be vented with aggressive actions. Therefore it may be that as the athlete is unable to achieve a certain aim the likelihood of aggressive behavior could increase and result in injury.

Among theory that has been presented in the literature is Bandura's social learning theory (Grusec, 1992); which states that individuals learn how to respond in given situations by observing the response of others in similar scenarios. Thus, if an individual sees another athlete acting aggressively during sport participation he or she may be more inclined to respond similarly.

According to Australian Social Trends, (1997) Overuse injuries are the most common type of injury to runners. They result from repeated stress to the tissues involved due to repetitive episodes of trauma overwhelming the body's ability to repair itself. Those injuries problems were happened due to overuse of unfit muscles.

Athletic injuries were mostly affecting athlete's performance negatively due to taking long time to recover or fully rehabilitate from the injuries in the training center. According to Laurel T MacKinnon (2000) Recovery from injury may require weeks to months of complete rest or greatly reduced exercise training. Inconsistent or poor performance at critical times in an athlete's career may influence selection for representative teams and possibly cause the athlete to prematurely retire from sport.

According to the literature (Junge, 2000), (Grusec, 1992) aggressions appear to be one of the personality factors which are potentially related to injury occurrence. Consequently, the aim of the study was to examine the relationship between aggression and the number of reported injuries that occurred. According to the results it was shown that a relationship does in fact; exist between the levels of aggressiveness and the number of reported injuries. The study revealed that a positive but weak correlation existed between Aggressiveness and injury rates in the sample collegiate population. This finding appears to be very similar to the results reported by (Thompson & Morris, 1994).

According to (Martinez, 2011) a sample of elite athletes involved in a variety of sports were more likely to sustain an injury if shown to act aggressively. Thompson and Morris also found that two groups of athletes were more at risk for injury: those that were minimally aggressive and the ones that were highly aggressive. From the results their study it can be inferred that those athletes reporting high levels of aggression were more likely to sustain an injury as shown by

Thompson and Morris. However, some major differences between the current study and the aforementioned research may have accounted for the differences in the finding. Among these were the questionnaire used, the age groups utilized, and finally the method of injury collection. In those previous researches the authors utilized weekly interviews with coaches and athletic trainers to obtain injury information whereas in the current study the researcher only used self-reported questionnaires.

Male athletes have been reported to be at increased overall injury risk compared to female athletes (Kujala et al. 1995b, Junge et al. 2004b, Knowles et al. 2006a, Darrow et al. 2009, Hägglund et al. 2009). Overall, in accordance with our findings, earlier studies have found no gender differences in overall injury incidence in different sports after adjustment for exposure time (Lanese et al. 1990, Messina et al. 1999, Wolf et al.2009).

The findings were not similar and therefore it may be assumed that these differences significantly affect the outcome of the results.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary

This chapter summarizes the major findings of the study and then concludes on the base of these findings. Finally, feasible recommendations are suggested regarding aggression and injury of field event athletes: in case of some selected athletics clubs of Oromia special zone surrounding Finfinne.

Association of aggression and injury of field event athletes: in case of some selected athletics clubs of Oromia special zone surrounding Finfinne. The study was designed to answer the following research questions.

1. How is the current status of athlete's aggression level in Oromia special zone surrounding Finfinnee athletics clubs?
2. What is the current status of athlete's injury in Oromia special zone surrounding Finfinnee athletics clubs?
3. Do athletes aggression level and athletes injury have association in Oromia special zone surrounding Finfinnee athletics clubs
4. Is there a difference between athlete's aggression and injury across event and clubs in case of field event athletes in some selected Oromia special zone surrounding Finfinnee athletics clubs?

In order to answer the questions, the descriptive statics research method and correlation analysis was employed. The relevant data to the study was gathered through questionnaires. In general, forty four (n=44) athlete and 6 coach participants' were involved in the study. The data obtained were analyzed using descriptive statements and statistical methods such as frequencies, percentage. The relationships between the two variables were analyzed by pearson correlation analysis. Finally, based on the analyzed data, the following major findings were obtained from the study.

The study identified that the current aggression level of athletes in case of field event athletes in

some selected Oromia special zone surrounding Finfinnee athletics clubs were higher. Most of the respondents reported that they display aggressive behaviors quite often. The largest proportion of respondents indicated that they sustained variety of injuries during the past 12 months of their sports career.

Finally, according to the finding from the analysis of Pearson correlation for the relationship between aggression and injury of athletes there was no significant value between aggression and injury of field event athletes: in case of some selected athletics clubs of Oromia special zone surrounding Finfinnee.

5.2. Conclusion

Based on the results from questionnaire and data analysis of the study the researcher obtained and analyzed the data and the following basic points were forwarded as a conclusion.

- ❖ The demographic result of the study indicated that almost more than half of the athletes were male, more than half of athletes were jumping athletes and the rest were throwing, athletes age enables them to train, athletes had an experience they can easily understand the way in which their coach train them and majority of the field event athletes found in some selected athletics clubs of Oromia special zone surrounding Finfinne were ranging from elementary up to degree holders.
- ❖ The coaches' demography shows that almost all club coaches were male, majority of coaches were found in a functional physiological age, majority of coaches who were coaching at athletics clubs of field event athletes in Oromia special zone surrounding Finfinne had sufficient coaching experience, majority of coaches educational status were second level and third level .
- ❖ According to the results majority of the field event athletes found in some selected athletics clubs of Oromia special zone surrounding Finfinne displays aggressive behaviors.
- ❖ Majority of the athletes found in those some selected athletics clubs of Oromia special zone surrounding Finfinne were reported that they have sustained a variety of injuries during the past 12 months.
- ❖ Many of the injuries were related to musculoskeletal injuries.
- ❖ When athletes are injured they were given treatment in the training area and competition.
- ❖ The findings of the current study indicate that a relationship doesn't exist between aggression and the number of injuries reported in some selected field event athletes of Oromia special zone surrounding Finfinne athletics clubs.

5.3. Recommendation

The study attempted to find the current status of athletes' aggression and injury as well as whether or not there was a relationship between observed aggressions and injuries. Therefore, the findings of this study revealed that the aggression level of athletes are higher and also their injury occurrence as well, even though there is no significant relationship between the level of aggression and the reported number of injuries; coaches and club managers should work on a means of preventing and minimizing the injury and aggression. Thus, coaches ,athletes and club mangers in some selected field event athletes of Oromia special zone surrounding Finfinne athletics clubs should arrange an awareness programs as well as to ensure about the causes of injury for athletes, coaches and managers.

To this end, the following recommendations will be forwarded in light of the findings:

- Psychological counselling is needed so that they are able to control and manage their aggression level towards an assertive goal.
- In order to see a better performing, athletes are expected to be free from injury.
- Majority of coaches having license of secondary level while few coaches licensed in third level and first level ,it's good to scale up their license level to be national and international level.
- By identifying those athletes who are highly aggressive it may be possible to utilize some form of intervention to prevent these tendencies.
- It's better for Coaches and club managers to give awareness on injury prevention.
- Shortage of facility and training environment may be found among the main causes of injury in the clubs. Therefore, the concerned bodies should work jointly to minimize the injuries.
- Further studies are recommended to be conducted in larger populations of athletes by taking into consideration of different factors.

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Appendix A
JIMMA UNIVERSITY
COLLEGE OF NATURAL SCIENCES
DEPARTMENT OF SPORT SCIENCE

Informed consent

Hello, my name is FRAOL SHEBE and I am a master's candidate for the College of Natural science at Jimma University. I am conducting a research study on Association of Aggression and Injury of Field Event Athletes: In Case Of Athletics Clubs of Oromia Special Zone Surrounding Finfinne.

There are no foreseeable risks for participating in this research. While individual participants may not benefit directly from participation, the results of this study will expand the knowledge base on the association of athlete's aggression and injury rate especially on field event athletes.

If you would like to participate, please fill out this brief 10-minute survey. Your participation is completely voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled.

Your responses will be confidential. Names and other identifiers will not be placed on surveys or other research data. If you have any questions, please contact me by phone (0920685364) or by e-mail (shebefraol@gmail.com)

Thank you in advance for your participation!

Sign _____ Date _____

THANK YOU

Part I: Aggression questionnaire for athletes

Please do not write your name anywhere on this questionnaire. Answer the following questions honestly and to the best of your knowledge. All of your responses and the results of this study will be kept strictly confidential. Thank you for your time.

Please respond to the following demographic questions by circling to the answer or writing in the appropriate space provided for the information.

Part I: Demographic questions related to the athletes

1. Club: A. Burayu B. Sebeta C. Lagaxafo
2. Event: A. Jumping B. Throwing
3. Sex: A. male B. female
4. Age: A.16-19 B. 20-25 C. 26 and above
5. Experience: A. 1-2yrs B. 3-4yrs C. 5-6yrs D. 7yrs and above
6. Marital status: A. unmarried B. Married C. Divorce
7. Educational level: A. elementary B. secondary C. Certificate D. Diploma E. Degree G. Masters and above

Part II: Questionnaires related to aggression of athletes

Competitive Anger and Aggressiveness Scale (CAAS)

Instruction: Please rate each of the following items in terms of how characteristic they are in expressing of you. Use the following scale for answering these items.

1 = almost never, 2 = occasionally, 3 = sometimes, 4 = quite often, 5 = almost always

1. I become irritable if I am disadvantaged during a match

1 2 3 4 5

2. I feel bitter toward my opponent if I lose

1 2 3 4 5

3. I get mad when I lose points

1 2 3 4 5

4. I show my irritation when frustrated during a game

1 2 3 4 5

5. I find it difficult to control my temper during a match

1 2 3 4 5

6. Official's mistakes make me angry

1 2 3 4 5

7. Violent behavior, directed toward an opponent, is acceptable

1 2 3 4 5

8. It is acceptable to use illegal physical force to gain an advantage

1 2 3 4 5

9. I taunt my opponents to make them lose concentration

1 2 3 4 5

10. I use excessive force to gain an advantage

1 2 3 4 5

11. I verbally insult opponents to distract them

1 2 3 4 5

12. Opponents accept a certain degree of abuse

1 2 3 4 5

Part III: Questionnaires related to injury of athletes

Instruction: Please rate each of the following items in terms of how they are describing of your injury situation. Use the following scale for answering these items.

A=Yes B=No

1. Have you had an acute sports injury during the past 12 months? A. Yes B .No

2. Have you had an overuse sports injury during the past 12 months? A. Yes B .No

3. Are you absent from training or competition because of the injury? A. Yes B .No

4. Have you taken medical treatment for the injury you have encountered? A. Yes B .No

5. Have you previously sustained the same injury in the same anatomical site during your sports career? A. Yes B .No

6. Did you get any instructions from a doctor /physiotherapist and coaches about rehabilitation of the injury on the first occasion before it recurred? A. Yes B .No
7. Was the injury sustained in a situation involving another athlete? A. Yes B .No
8. Are you injured on artificial surface while training or competition? A. Yes B .No
9. Are you injured on natural surfaces while training or competition? A. Yes B .No
10. Did the injury occur during training/playing in the open air? A. Yes B .No
11. Did the injury occur during training/playing in an indoors surface? A. Yes B .No
12. Do you think external factors (for example surface, venue or weather) were connected with the injury? A. Yes B .No
13. Did the injury affect your performance? A. Yes B .No
14. Did the injury located in the head area of your anatomical site? A. Yes B .No
15. Did the injury located in the thoracic area of your anatomical site? A. Yes B .No
16. Did the injury located in the extremities area of your anatomical site? A. Yes B .No
17. Was the injury type musculoskeletal? A. Yes B .No

Appendix B

Questionnaire for a coach of field event athletes

Before we begin, I would like to remind you that all the information you provide in this questionnaire is confidential and also used for research purpose only.

Part I. Demographic profile of respondents

Direction: Put "x" sign in the box you select

1. Sex : Male Female
2. Age: 25 – 35 36 – 45 Above 45
3. Educational status: Degree Diploma Certificate High school complete
4. Experience in the training project:
1-2year 3-4years 5-6 years 7and above

Try to list the correct answer for the following questions.

1. What is the current aggression of field event athletes in your club?

2. How do you explain injury status of field event athletes in your club?

3. Do you think the injuries (if present) were caused due to the aggression observed by field event athletes in your clubs?

4. Do you think that the observed aggression and injuries were similar across event, other clubs, sex and age?

Appendix C

JIMMAA YUNIVARSIITII

KOOLLEJII SAAYINSII UUMAMAA

MUUMMEE SAAYINSII ISPOORTII

Rarraatuu

Rarraatuu A. Eeyyama Odeeffannoo Sasaabuu

Akkam jirtu? Ani maqaan koo Fira’ol shabbeen jedhama, Yuunivarsiitii Jimmaa, Kolleejjii Saayinsii Uumamaa, Muummee saayinsii ispoortii (Leenjistummaa Atileetikisitiin) kadhimamaa digirii 2^{ffaa} dha. Yeroo amma qorannoo mata dureen isaa” Association of Aggression and Injury Rate of Field Event Athletes: In Case Of Athletics Clubs of Oromia Special Zone Surrounding Finfinne “jedhu irratti hojjechaan jira.

Qorannoo kan keessatti hirmaachuu keessaniin dhiibbaan isin irra ga’u kan hin jirre ta’uu isaan ibsaa. qorannoo kana keessatti atileetiin hirmaatu kallattiin amma kan fayyadamu yoo hin qabaaneyyu qorannoon kun bu’uura babal’ina beekumsaa dhimma waliitti dhufeenyaa aggression fi miidhamni atileetota qabu akka beekaniif isaan gargaara.

Qorannoo kana guutuudhaaf daqiiqa **10** kan hin caalle yommuu ta’u, qorannoo kana keessatti guutummaatti hirmaachuun fedha irratti kan hunda’edha. Qorannoo kana keessatti hirmaachuu dhiisuun faayidaas ta’e adabbii homaatuun kan hin qabne ta’uu ibsaa qorannoon kun guutummaa guutuutti xumuruun garu faayidaa hundaati.

Kanaafuu, deebii isin deebistan icciitiin kan eegamu yommuu ta’u, maqaa fi eenyummaan keessan qorannoo kana keessatti hinbarreefamu. Gaaffiin yoo jiraate lakkoofsa bilbila +251920685364 ykn e-mail shebefraol@gmail.com Kanaan na qunnamuu dandeessu.

Waan qorannoo kana keessatti hirmaattaniif galatooma

Appendix D

JIMMAA YUNIVARSIITII

KOLLEEJII SAAYINSII UUMAMAA

MUUMMEE SAAYINSII ISPOORTII

Rarratuu A: Gaaffilee barreeffamaa atileetotaaf

Gaaffilee armaan gadi yeroo guuttan maqaa keessan barreessuun barbaachiasa miti. Gaaffilee armaan gadii kana haqaaf beekumsa qabdan irratti hundaa’uun deebisa. Deebiwwan keessanii fi bu’aan qorannoo kanaa icitiin isaa sirriti kan eegamu ta’aa

Kutaa 1ffaa: Haala Diimoogiraafii Atileetootaa

Qajeelfama: Maaloo deebii yaada keessan ibsuu fi wal-simata jettanii yaaddan sirriitti erga filattaniin booda bakka isiniif qophaa’eetti mallattoo’’X’’ guutaa ykn immoo qubee filattanitti maruun argisiisaa.

1. Kilabii: Burraayuu lagaxafoo sabataa
2. Gosa dorgommii : Utaalcha Darbanna
3. Haala maatii: kan hinfunne kan fudhee/te kan hiikee/te
4. Saala: dhi dha
5. Muuxannoo leenjii: Waggaa 1-2 Waggaa 3 -4 waggaa 5-6 waggaa 7fi ol.
6. Umurii: A. 10-15 B. 16-20 C. 20-25 D.26 fi isaa ol
7. Sadarkaa barnootaa : Kutaa gadii aanaa 1 – 8 Giddugaleessa 9 – 12
Sartifikeeti Diplooma Digrii Digriiffaa fi isaa oli

Kutaa 2ffaa: Gaaffilee miira diinummaa(jibba) atileetota ilaalatu

Qajeelfama:-Iskeeliiwaan shanan armaan gadii kanatti fayyadamun,himoota itti anan kana hagaam waa’ee amaala keessani akka ibsan ifa godha.deebii keessan lakkoofsaa isiin ibsu irratti maruun deebisaa.

Iskeeliiwaan armaan gadii kanatti fayyadamun himoota itti ananiif deebii isiin ibsu danda’u kenna.

1=Gonkumatti kan dhiyate 2=Darbee darbee 3=altokko tokko 4=Hanga tokko yeroo bay’ee
5=Yeroo hundumaa

1. Taphaa keessaatti yeroon qabxii dhabe nan aara.
1 2 3 4 5
2. Yeroon qabxii dhabe garee fallaa kotti baay'een aara.
1 2 3 4 5
3. Yeroon qabxii dhabe baay'iseen ofitti aara.
1 2 3 4 5
4. Taphaa keessatti yeroon sodadhe aarii koon nan mul'isaa
1 2 3 4 5
5. Yeroon taphaadhu aarii koo toa'achuun natti ulfaata
1 2 3 4 5
6. Dogongorri murteessitotaa na aarsa
1 2 3 4 5
7. Amalootni jeequmsaa garee fallaa irratti taasifamu fudhatamadha
1 2 3 4 5
8. Seeraa malee humna qaaman fayyadamun bu'aa argaachun fudhatama qaba
1 2 3 4 5
9. Gareen fallaa koo akkaa yaada hinsasabannee godhuf nan tutuqa
1 2 3 4 5
10. Bu'aa argaachuuf humna garmaleen fayyadama
1 2 3 4 5
11. Yaada isaani haatuuf garee fallaa koo nan araabsa
1 2 3 4 5
12. Gareen fallaa koo dhiibbaa irratti taasifamu hanga tokko ni fudhatu
1 2 3 4 5

Kutaa 3ffaa: Gaafilee miidhama Atileetotaa ilaalatu

Qajeelfama:-Iskeeliiwaan shanan armaan gadii kanatti fayyadamun,himoota itti anan kana hagaam waa'ee amaala keessani akka ibsan ifa godha.deebii keessan lakkoofsaa isiin ibsu irratti maruun deebisaa.

A=Eyyee B=Lakkii

1. Ji'ootan 12 darbaan keessaatti miidhamni ispoortii simudate beekaa? A. Eyyee B. Lakkii
2. Ji'ootan 12 darbaan keessaatti miidhamni ispoortii simudate beekaa? A. Eyyee B. Lakkii
3. Sababa miidhamatiin leenjii yookiin dorgomii irraa haftee beektaa? A. Eyyee B. Lakkii
4. Miidhama siimudateef yaalii oggeessaa fayyaa fudhatee/argatee? A. Eyyee B. Lakkii
5. Kana dura bakka wal fakkata ta'ee irratti irraa deebiin miidhamni siqunama beekaa? A. Eyyee
B. Lakkii
6. Dooktarii ykn leenjjiisaan kee miidhan irraa deebii osoon sinmudatiin yeroo duraf yoo sii mudatu dura qajeelfama haala miidhama irraa fooya'uun danda'amu siif kennaniru? A. Eyyee
B. Lakkii
7. Miidhamni simudatee ture atileetii biraa waliinii? A. Eyyee B. Lakkii
8. Leenjii irraatti ykn yeroo dorgomii miidhan simudate dirree namtolche irraatti ture? A. Eyyee
B. Lakkii
9. Leenjii irraatti ykn yeroo dorgomii miidhan simudate dirree uumama irraatti ture? A. Eyyee
B. Lakkii
10. Yeroo leenjii ykn dorgomii Miidhamni kan simudate dirree alaatti? A. Eyyee B. Lakkii
11. Yeroo leenjii ykn dorgomii Miidhamni kan simudate dirree mana keessaa irrattii? A. Eyyee
B. Lakkii
12. Miidhamni keessaa deebii simudate sababa biraa alarra ta'een walqabata jette yaadaa?(kan akka dirree,stadiyoomii ykn haala qilleensaa)? A. Eyyee B. Lakkii

13. Miidhamichi ga'umsaa kee irratti dhiibbaa umeera? A. Eyyee B. Lakkii
14. Kan miidhamtee naannoo mataa kee irraa? A. Eyyee B. Lakkii
15. Kan miidhamtee naannoo qaama gidduu galeessaa kee irraa? A. Eyyee B. Lakkii
16. Gosti meedhama kee miidhama mashaalee fi lafeen walqabatu turee? A. Eyyee B. Lakkii
17. Kan miidhamtee naannoo qaama garagadii kee irraa? A. Eyyee B. Lakkii

Appendix E

Gaaffilee leenjistootaaf qoophaa'e

Osoo gaaffii fi deebii keenya hin eegalin dura wantiin si hubachiisu barbaadu odeeffannoon ati gaaffii kana keessatti kennitu icciitiidhan kan qabamu fi qorannof qofa kan fayyaduudha.

1. Saala: Dhiira Dhalaa
2. Umurii: A. 25-30 B. 31-36 C. 37-45 D.46 fi isaa ol
3. Muuxannoo leenjiisummaa: A. Waggaa 1-2 B. Waggaa 3 -4 C. waggaa 5
D. waggaa 7 fi isaa ol
4. Sadarkaa barnootaa Masteersii Digirii Diippiloomaa Sartifikeeti

Gaaffilee armaan gadiif deebii isaa iddoo siniif kennameerratti tarreessun barreessaa

1. Akka kilabii keessanitti sadarkaan miira diinummaa(jibba) atileetota giddutti ni mulat'ataa,sadarkaa akkamii irraa jira?

2. Akka kilabii keessanitti miidhamni atileetoota irraa gahu yeroo ammaa sadarkaa akkami irraatti argama?

3. Miidhamni atileetoota irraa gahu(yoo jiratef) sababa miira diinummaa(jibba) atileetota gidduu jirun jettani yaaduu?

4. Miidhamni atileetoota irraa irratti mul'atu fi miira diinummaa(jibba) atileetota gidduu jiru kilablii irraa gara kilabiiti,ivantiittin,salaan garaagaruma ni qabu jettani yaaduu?
