

2024-07

# The Effect Of Stress, Anxiety And Aggression On Youth Females Players Performance: The Ca Addis Ababa City Administration

Biruk, Moges

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**BAHIR DAR UNIVERSITY**

**SPORT ACADEMY**

**DEPARTMENT OF SPORT SCIENCE**

**THE EFFECT OF STRESS, ANXIETY AND AGRESSION ON YOUTH  
FEMALES' HANDBALL PLAYERS' PERFORMANCE: THE CASE OF  
ADDIS ABABA CITY ADMINISTRATION**

**BY**

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**JULY, 2016**

**BAHIR DAR, ETHIOPIA**

**BAHIR DAR UNIVERSITY**  
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**DEPARTMENT OF SPORT SCIENCE**

**The Effect of Stress, Anxiety and Aggression on Youth Females’  
Handball Players’ Performance: The Case of Addis Ababa City  
Administration**

**A Thesis Submitted in Partial Fulfillment of The Requirements for Degree of  
Masters of Science in Coaching Handball**

**By:**

**Biruk Moges Tenaw**

**Advisor: Zemenu Teshome (PhD)**

**JULY, 2016**

**BAHIR DAR, ETHIOPIA**

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## **Declaration**

This is to certify that the thesis entitled “*The effect of stress, anxiety and aggression on youth females’ handball players’ performance: The case of Addis Ababa City Administration*”, submitted in partial fulfillment of the requirements for the degree of Master of Science in Coaching Handball in Department of sport science, Bahir Dar University, is a record of original work carried out by me and has never been submitted to this or any other institution to get any other degree or certificates. The assistance and help I received during the course of this investigation have been duly acknowledged.

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**APPROVAL OF THESIS FOR DEFENSE**

I hereby certify that I have supervised, read, and evaluated this thesis titled “*The effect of stress, anxiety and aggression on youth females’ handball players’ performance: The case of Addis Ababa City*” by **Biruk Moges** prepared under my guidance. I recommend the thesis be submitted for oral defense.

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As members of the board of examiners we examined this thesis entitled *“The effect of stress, anxiety and aggression on youth females’ handball players’ performance: The case of Addis Ababa City”* by **Biruk Moges** We hereby certify that the thesis is accepted for fulfilling the requirements for the award of Master of Science in Coaching Handball complies with the regulations of the Institute.

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## **Dedication**

This thesis is dedicated to my mother, Ayal Getachew and sister, Maritu Abebaw for their constant physical, emotional, and financial support throughout my educational career and life.

## **Acknowledgment**

First and foremost, I would like to express my heartfelt gratitude to almighty God who has guided me this far and to whom it goes all the Honor and glory for the successful completion of this study. And I would like to thank my parents for their valuable support and encouragement, blessing and love which has always been a source of inspiration and strength in accomplishing this academic task.

And my heartfelt gratitude to my mother Ayal Getachew and sister Maritu Abebaw for their moral and material support for the accomplishment of this study. And I wish to express my sincere thanks to my advisor, Dr, Zemenu Teshome for his judicious information, expert suggestions, valuable guidance, continuous support, incessant reassurance during every stage of this work and interest shown in this thesis without which this work would not have been possible.

I would like to thank all Bahir Dar University Sport Academy staff members for their great supports and positivity in helping me. And I would like to forward my sincere gratitude special thanks to staffs of Ras Hailu Sport, Education, and Training center in Addis Ababa City for their support in data collection process. And I am thankful to Addis ketema, Arada Afinchober, Kolfe Finans and Ras Hailu U-17 Female Handball trainees and coaches to participate in collecting the necessary data for this study.

Last but not the least, I would like to thanks all the Individuals in my study without whom this Task would not have been possible



## **Abstract**

*Playing handball entails numerous forms of stress, anxiety, and aggression that young female handball trainees need to be able to manage to bring the desired performance. It is also important that they release any accumulated tension in a way that would enable them to be more assertive. The objective of this study was to investigate the effects of psychological factors of stress, anxiety, and aggression on the game performance of young female handball trainees. To address this objective a correlational research design with a quantitative approach was used. The sample consisted of eighty under seventeen female handball trainees from four youth female handball projects. The trainees were selected by using purposive sampling. And the four projects were selected using compressive sampling to include all young female projects. The researcher used these standard questionnaires of aggression, Perceived Stress Scale for stress, sports competition anxiety test for anxiety, and game performance, real-time game observation checklist was used adopted by the researcher to collect data. And the statistical analyses were examined through SPSS version 27 software, the researcher used correlation, regression, independent t-test, and Two-way ANOVA. It is found that the stress, anxiety, and aggression of the trainees are moderate level. Where values  $p \leq 0.05$  were considered as significant. The result indicated that anxiety, aggression, and stress had a negative correlation with the performance of young female' handball trainees ( $r = -.883$ ;  $p = 0.000$ ,  $r = -.870$ ;  $p = 0.000$ ,  $r = -.782$ ;  $p = 0.000$  respectively). Anxiety is the predictor variables that donate the highest variation of Game performance. Based on the results, it was found that there is a strong correlation between anxiety and aggression. It implies that it is essential for young female handball trainees to acquire coping mechanisms to manage stress, anxiety, and aggression efficiently enabling them to enhance their performance. '*

**Key words:** *Game analysis; Game performance; Performance indicators; Real-time game observation*

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## **Abbreviations**

AAHF	Addis Ababa Handball Federation
AQ	Aggression Questionaries
PSS	Perceived Stress Scale
SCAT	Sport Competition Anxiety Test
SPSS	Statistical Packages for Social Science
U-17	Under Seventeen
VIF	Variable Inflation Factor



# CHAPTER ONE

## INTRODUCTION

In this chapter background of the study, statement of the problem, basic research questions, objectives (general and specific) of the study, delimitation (Scope) of the study, limitation of the study, significance of the study, operational definitions of terms of the study and organization of the study were presented and discussed in detail.

### **1.1 Background of the study**

Recent research in performance analysis reveals basic rules for applying performance indicators to sports. Success or failure is relative to opponents or previous performances. To interpret data objectively, compare collected data to aggregated data from peers and normalize actions across the playing surface (Debanne, 2018).

Match statistics in sports are crucial for evaluating individual and team performance, providing clear and concise information for media, coaches, and spectators. Performance indicators, defined by are valid measures of performance with objective measurement procedures, known scales, and valid interpretation (O'Donoghue, 2015).

The influence that coaches have on a player's growth is a crucial component of performance in handball sport. Thus, one of the primaries focuses of movement and training sciences is performance analysis. The techniques for match analysis employed in this discipline have steadily developed, and many of the most well-known and inventive recent research (Debanne et al., 2018). There are immediate applications for the analysis of sports performance metrics. Reference values, as noted (Higham *et al.*, 2014). Can help coaches set measurable goals for performance and training, as well as comprehend team performance variability. They can also be useful in assessing the effectiveness of tactical adjustments and training interventions.

Handball, originating in Northern Europe in the late 1880s, has gained global popularity since 1928. The International Handball Federation consists of five federations and 208-member countries. Modern handball emerged in the late 20th century, inspired by Denmark, Germany, and Sweden. With 7 million registered players, handball is played across all continents, with European clubs, Asian clubs, and clubs in Africa and Oceania (Saavedra, 2018).

Handball in Ethiopia began in the 1960s, with foreign university instructors from Addis Ababa University and Ato Tekameh W/Tsadik introducing the game to military forces and other communities through video content (Demissie, 2014).

The sports projects in Ethiopia have made significantly impacted youth development and national unity by involving young athletes, revealing hidden talents, and nurturing future stars. These projects improve athletes' performance, promote active lifestyles, and instill hope for a better future, ultimately improving the overall sports scene in the country (Tadesse et al., 2020).

Sport psychology is a scientific study of people and behaviors in sport contexts, aiming to enhance athletes' performance, mental health, and overall well-being. Sport psychologists teach psychological techniques to athletes of all ages and abilities, helping them manage stress, maintain an optimistic outlook, and continue to develop and evolve (Schüler et al., 2023).

The study explores stress's impact on sports performance and offering strategies for athletes, coaches, and support teams to improve wellbeing, providing valuable insights for sports psychology students and coaches (Arnold & Fletcher, 2021). The pressure of stress can have effects on handball athletes resulting in a decline in performance higher chances of injury and mental health concerns. To counter these impacts stress management strategies such as relaxation exercises and biofeedback training can be utilized (Hornstrup et al., 2018).

The study explores the link between competitive anxiety and sport performance in female players, finding that increased anxiety leads to decreased efficiency, while consistent application of Jacobson relaxation techniques improves performance (Petruş et al., 2022).

Anxiety is a mental health concern affecting athletes like handball players. Studies show that female players, regardless of injury, experience anxiety levels. Male players show higher anxiety levels, while injured individuals show higher levels. This affects performance. (Mon-López et al., 2020) Managing anxiety, in women handball players is vital, for their success and overall performance. It can show up as both physical strain making it important for coaches and sports psychologists to focus on the wellbeing of these players (Kristjánsdóttir et al., 2018).

Aggression, a form of behavior, can significantly impact an individual's wellbeing. Understanding its evolution and factors influencing it is crucial for effective mitigation. Studying aggression in handball players can reveal its prevalence, causes, and potential remedies (Mon-López et al., 2020). Sport psychology is designed to help players compete to the best of their ability. Being able to manage competition-related stress, pressure, anxiety, and Aggressiveness is crucial. Sport science

exists to train players with the necessary tools and techniques to manage psychological issues when they emerge. Sport psychologists' works on to make the soft-minded more resilient and the realistic (Collins et al., 2019).

Researchs have indicated that these psychological factors specifically stress, anxiety, aggression are especially important factors that have a positive and negative impact on sport performance. And the following studies show psychological variables in pair with performance and aggression, performance and anxiety, and performance and stress. (Kristjánsdóttir et al., 2018), (Reza et al., 2020), (Ivaskevych et al., 2020),(Mon-López et al., 2020), (Arnold & Fletcher, 2021), (Petruş et al., 2022). And the following studies focus on the analysis of game performance only . (Bilge, 2012),(Gutiérrez & Ruiz, 2013),(Yamada et al., 2014), (Luis C Martínez, 2016),(W. R. Ferrari et al., 2019).However this study aims to investigate the effects of stress, anxiety, aggression on the game performance of youth female handball players because, in my understanding, there has been a lack of research studies on the association of psychological factors and game performance, particularly with stress, anxiety, and aggression. And understanding these factors can help create interventions to help these players overcome these challenges and succeed in their game performance.

## **1.2. Statement of the problem**

Research on handball performance focuses on evaluating team success by examining the internal structure of ball possession, which varies in game sequences. Handball involves setting goals through direct and indirect actions, free spaces, and passes. Goals are achieved in phases like attack, defense, and goalkeeper, which are combined to achieve match success in different areas of the field. These dimensions are crucial for a team's success(Teles & Volossovitch, 2015).

The majority of research focuses on offensive plays and the four primary performance variables of shots, winning/losing team disparities, time outs, and match relationships. While dynamic approach studies utilize sophisticated methodologies to assess performance evolution during the match, static perspective studies use descriptive and comparative analyses of cumulative statistics.(W. Ferrari et al., 2019) The study investigates the application of cross-efficiency evaluation and Data envelopment analysis as management tools for sports teams. Peer review is possible through cross-efficiency evaluation, and Data envelopment analysis offers a measure of player performance. These techniques can assess managerial and operational effectiveness, providing coaches and sports teams with insightful data.(Gutiérrez & Ruiz, 2013)

According to Wagner et al (2023) performance profiles can be created using knowledge of performance indicators to predict team psychological behaviors and performance results. Each psychological factor affects sports performance differently, yet some factors are better and more appropriate for some types of games than others(Sajjan, 2018).

Numerous psychological researches have demonstrated the function of psychological traits and their influence on group or individual performance (Reza et al., 2020). In order to acquire new skills and perform effectively during training and competition, athletes of all ability levels should be in good physical and mental health (Itoh, 2020).

The psychological wellbeing of these young female handball players was likely affected by performance outcomes, competition pressure, teammate requirements, and training demands. The purpose of this study to investigate the psychological factors faced by young female handball players in Addis Ababa City and how these variables predict their game performance. Existing literature primarily focuses on adults, mostly male gender group, and overall performance not show the effect of stress, anxiety, and aggression on game performance. This study aims to fill this gap specifically addressing youth female handball players in Addis Ababa City. The purpose of this study to investigate the effects of stress, anxiety, and aggression on game performance of youth female handball players.

### **1.3. Research Objective**

#### **1.3.1. General objective**

The general objective of this study was investigating the effects psychological variables stress, anxiety and aggression on young female handball project players game performance, in Addis Ababa City Administration.

#### **1.3.2. Specific objectives**

- 1) To find out the relationship between stress and game performance among young female handball players in Addis Ababa City.
- 2) To identify the relationship between anxiety and game performance among young female handball players in Addis Ababa City.
- 3) To find out the relationship between aggression and game performance among young female handball players in Addis Ababa City.
- 4) To Explore the impact of stress, anxiety, and aggression on game performance among young female handball players in Addis Ababa City.

#### **1.4. Research Questions**

- 1) What is the impact of stress on the game performance of young female handball players in Addis Ababa City?
- 2) How does anxiety impact the game performance of young female handball players in Addis Ababa City?
- 3) How does aggression affect the game performance of young female handball players in Addis Ababa City?
- 4) What is the association between independent variables (anxiety, stress and aggression) and dependent variable (game performance of youth female handball players) in Addis Ababa City?

#### **1.5. Delimitation of the study**

The study was delimited on the following points:

- ✓ To investigate the relationship of psychological factors among stress, anxiety, and aggression in youth female handball players game performance.
- ✓ Geographically it is delimited on four youth female handball players in Addis Ababa City Administration specific focus on Addis Ketema wereda 8 project, Kolfe Keranio wereda 9 project, Arada woreda 5 Afincho beer project and Ras Hailu youth Female Handball project trainees.

Regarding measurement tools, this study is delimited to:

- ✓ Aggression questionnaires (Buss & Perry, 1992),
- ✓ Perceived Stress Scale (Cohen et al., 1983), and
- ✓ Sport Competition Anxiety Test (SCAT) (Martens,1977)
- ✓ Real game observation check list to game performance (adopted by the researcher)

#### **1.6. Significance of the study**

This study contributed to:

- ✓ It providing deeper understanding of the psychological factors (aggression, anxiety and stress) and how it is affecting young female handball players performance.
- ✓ It provides concepts on the relationship between game performance and psychological factors, particularly aggression, anxiety, and stress.
- ✓ It is beneficial for coaches, sport and physical education specialists, and teachers to have more knowledge regarding psychological factors.

- ✓ It provides more insight into the field of study and helps the researcher gain more expertise in carrying out follow-up research.
- ✓ The study also to providing solutions and reliable information to project coaches and other sport stakeholders regarding the relationship between selected psychological factors and youth female handball trainees performance.
- ✓ Lastly, this study serves as a foundation for future researchers who were interested to conducted related research in this field.

### **1.7. Limitation of the study**

While conducting this study, the researcher has faced the following problems which contribute to the limitation of the study, financial constraints, the absence of sufficient literature related to the selected issue and research work, lack of player's interest to participate in the study, and limited numbers of games because of the tight program of competition are limitations of the study.

### **1.8. Operational Definition of Key terms**

**Aggression:** it refers to the behavior intended to dominate or intimidate an opponent. And it may be physically or verbally.

**Anxiety:** it refers to the felling of nervousness, worry and apprehension that players may experience before or during competition.

**Game analysis:** is a methodical assessment of a handball game with the aim of evaluating tactics, performance, and outcomes.

**Game Performance:** it refers to the ability of players to demonstrate talent and skill in various aspects of the game.

**Performance Indicators:** are variables or numbers that are used to assess how well teams or individuals perform throughout a game.

**Project players:** youth players identified as having significant potential for development future success in handball sport.

**Real-time game observation:** is watching and evaluating a handball match as it is happening in real time, paying particular attention to player decisions, moves, and general game dynamics.

**Sport psychology:** it refers the study and application of psychological principles to enhance sport performance and wellbeing of players.

**Stress:** it refers physical and psychological pressure or strain resulting from challenging situation in the game and competition.

## **1.9. Organization of the study**

This study is organized and presented in five chapters. The first chapter deals with introductory part of the study which comprises background of the study, statements of the problems, research questions, objectives (General and specific.), significance of the study, scope or delimitation of the Study, limitations of the study, definition of keys terms, and organization of the study. Chapter two deals with the review of related literature those are convenient and that provides a basic framework for the study. The third chapter deals with research methods that consist of research design, data sources, sample and sampling techniques, data collection instruments. The fourth chapter deals with data analysis and interpretation of data. The last chapter deals with, conclusions and expressed recommendations are included. Finally, references and appendixes are attached to the last part of the study.

## **CHAPTER TWO**

### **REVIEW OF LITERATURE**

The game handball is physically demanding and mentally challenging sport characterized by high intensity, competition pressure, technical and tactical complexity. It is essential for athletes to manage their psychological states (stress, anxiety and aggression) effectively to optimize performance and wellbeing.

#### **2.1. Game Performance**

Team sports performance metrics should consider both total score and outcome. Recent research examines match statistics across various sports contexts, but fewer studies consider game dynamics from a static perspective, ignoring temporal context.(Liu et al., 2015)

Few researches have examined handball, despite the desire in finding characteristics that can be helpful to evaluate success in team sports. The internal structure of ball possession determines the game dynamics in handball, and performance metrics can show how this possession is structured differently in different game sequences.(Yamada et al., 2014) Handball is a game in which setting up a goal is the result of both direct and indirect actions, as well as the use of free spaces and passes. However, different goals must be achieved during different phases of the game, which are, attack, in which a team attempts to score a goal. Defense, in which a player tries to recover possession and prevent the opposing team from scoring a goal. And goalkeeper, in which a player attempts to prevent a goal within the goal area. These dimensions are combined to achieve match success, and they occur in different areas of the field.(Vuleta et al., 2014)

The advancements of technological enable the researchers to analyze handball performance gathering reliable indicators of handball matches from major national leagues and international championships (Blanco et al., 2015) Consequently, a number of research works have evaluated handball performance metrics. (Georgiana & Aurelia, 2014). Defense, attack, and the goalkeeper's position should all be considered in match indicators due to the unique characteristics of handball. These researchers make the point that thorough quantitative assessments of performance indicators in a handball setting can increase performer feedback, which in turn improves performance. (Blanco et al., 2015)

The influence that coaches have on a player's growth is a crucial component of performance in handball. Thus, one of the primaries focuses of movement and training sciences is performance



analysis. The techniques for match analysis employed in this discipline have steadily developed, and many of the most well-known and inventive recent research.(Debanne et al., 2018)

Looking through the handball literature, the majority of the studies conducted on this topic center on the physiological issues or injuries sustained by the players. Compared to match analysis, there are a lot more articles in this field. (Prieto et al., 2015)

The study examined team performance using three dimensions: outcome, attack, defense, and goal keeping. Indicators included assists, 7-meter shots, balls lost, technical fouls, and shots saved by the goalie. Defense indicators included interceptions, blocks, and penalties. The goalkeepers blocking percentage was also considered.

**Table 1: Definition of Game Performance Indicators**

<b>Indicators</b>	<b>Dimension Indicator</b>	<b>Description</b>
<b>Attack</b>	Goal	In a regulated action, the ball crosses the opponent's goal line completely.
	shot saved	The goal keeper stopped shots that were launched.
	Shot missed	shots that are fired past the goal.
	Shot hit post	Shots fired on a goal post.
	Shot blocking	shots that are fired away from the goal
	7-meter penalty shot	7-meter penalty shot
	Assist	Pass received by a player who scores a goal and leaves it ready to complete with a launch.
	Technical faults	Rules violation (steps, double, feet, area, ball adapted for more than three seconds, offensive foul, etc.)
<b>Defense</b>	Steal	The ball is recovered by an opponent's defender.

	Blocked shot	A defender makes a play to block the ball's route toward the goal.
	Yellow card	Player action causes the sanction of warning the opposing player.
	Two minutes	The other player receives a two-minute penalty as a result of player action.
<b>Goal keeper</b>	Saves Goal keepers	In order to prevent a player from scoring, the goalie intercepts the ball's trajectory.

The choice of observers was made on the basis of their academic background and sport science observational methodology research. Data from a single match in the sample was coded using observation criteria that the experts had previously specified. (González-García, I.; et al, 2016)

## **2.2. Stress in handball**

Athletes deal with stress such, as expectations, concerns about competition and balancing sports with obligations. This stress can result in fatigue or mental symptoms such as anxiety. Persistent stress may contribute to health issues and a higher likelihood of sustaining sports related injuries. Athletes need to recognize and control their stress levels to perform at their best and safeguard their wellbeing (Ford, JFord, J., Ildefonso, K., Jones, M., & Arvinen-Barrow, M. (2017). Sport-related anxiety: current insights. Open Access Journal of Sports Medicine et al., 2017).

Athletes should be aware and understand the sign of stress. While a certain level of stress is normal prolonged or excessive stress can negatively affect your well-being. Athletes often experience symptoms, like shifts in mood, tiredness, difficulty focusing changes in eating habits or weight disturbed sleep patterns, muscle tension, and headaches. It's essential to tune into your body and identify these indicators to reduce the impact of stress on your performance and overall health. In the sections, we will explore techniques and approaches, for handling stress as athletes (Malara & Lutosławska, 2016).

Women who play handball often face stress, particularly because of the difficulties of practicing, competing, and meeting performance requirements. A person's health may be impacted by gender-specific issues such as bias and expectations. It is imperative that support personnel, sports psychologists, and coaches recognize and address these pressures. Stress levels can be decreased

by implementing stress management techniques and creating a supportive environment. Overall health has improved. Playing handball can also lead to increased motivation and overall well-being. It is imperative to prioritize training and relaxation practices (Mariscal et al., 2019).

### **2.3. Stress and Performance in Female Players**

Lately, there has been a growing focus, on the impact of stress on handball player's performance. Several research studies have delved into how stress levels can affect the way handball players perform. Studies have indicated that various factors, such, as competition pressure, physical fatigue and mental stress can influence the performance of handball players. Moreover, research emphasizes the significance of identifying and addressing these stressors to enhance performance. Noteworthy insights, in this area include findings (Barbero et al., 2014).

Players who experience stress experience physical and psychological side effects, which impair their focus, equilibrium, on-field judgment, and overall performance. Beyond this, former athletes who experience stress are more prone to sustain injuries or experience burnout syndrome, a psychological condition brought on by stress. Athletes can maximize their performance by minimizing the negative effects of stress on their game play by understanding the notion of stress and managing it well. Players can therefore employ strategies like self-imposed goals, relaxation techniques, and time management to help them manage stress and consistently provide their best performance. Furthermore, fostering a supportive team environment will help reduce stress among the players, improving their performance in the game (Scanlan & Passer, 2016).

Considering stress alongside its effects on a player's performance coaches together with trainers and athletes who play handball can then join hands to form a complete approach that promotes the welfare and achievements of these individuals particularly in this sport. All in all, therefore proper management of pressures is very important if at all peak performances are to be maintained within the game while trying to avoid outcomes such as reduced concentration span leading to injuries. The most commonly approved measures of prevention were aimed at controlling or limiting physical stressors. Reduction of non-sport stresses and encouragement of autonomy and relatedness were also recommended (Kroshus & DeFreese, 2017).

### **2.4. Acute and Chronic Stress in female Players**

#### **2.4.1. Acute Stress in female Players**

Intense stress can harm the mental health of individuals. This can lead to chances of getting injured decreased performance and a greater likelihood of feeling exhausted. Female athletes are advised

to handle their stress levels by utilizing stress management techniques to avoid the effects of stress whether it is immediate or ongoing. These methods include relaxation practices, like breathing and visualization maintaining a diet ensuring an adequate amount of sleep and rest seeking support, from teammates and coaches, and setting achievable goals (Nikolovski et al., 2023).

Physiologically acute stress can result in increased heart rate, high blood pressure, and tense muscles. It can cause suffering leading to anxiety, apprehension, and a sense of being exploited. These outcomes may impact one's performance and overall state of being. To effectively handle stress in players it is crucial to use techniques that encourage relaxation, mental focus, and emotional control. Such approaches may involve breathing exercises, visualization methods, self-talk, and mindfulness activities (Lopes Dos Santos et al., 2020).

Players can enhance their capacity to properly manage stress levels while maintaining peak performance and possibly averting psychological disorders by implementing these tactics into their training regimens and matches. A setting that relieves athletes of pressure is also established by coaches and teammates. They facilitate communication, give access to health services, and provide direction, comfort, and encouragement. Coaches and support staff must concentrate on spotting stress indicators in female athletes, emphasized by Cosh & Tully (2015).

#### **2.4.2. Chronic Stress in female Players performance**

When it comes to athletes prolonged stress can significantly impact their game. Research shows that enduring high levels of stress can lead to a decrease, in concentration reduced coordination, and impaired decision-making abilities among these athletes ultimately affecting their performance on the field. Additionally, persistent stress may have effects on well-being by increasing anxiety levels and decreasing motivation in female players. Coaches, trainers, and sports psychologists play a role, in identifying and managing stress, in athletes to enhance their performance and well-being. By understanding the sources of stress faced by players and implementing effective coping strategies the detrimental effects of stress, on their performance can be minimized (Pagani et al., 2023).

Through offering support systems like mindfulness exercises, relaxation methods, and team-building activities coaches can assist women's players in managing their anxiety levels effectively thus improving their performance while simultaneously taking care of themselves. By creating an atmosphere of supportiveness combined with effective management strategies; coaches can enhance the total performance (Thelwell et al., 2017).

Recently there has been a growing awareness of how prolonged stress can affect the performance of handball athletes. The challenging nature of the sport including training schedules, frequent travel, and the pressure to consistently deliver top-level performances can contribute to stress levels, among athletes, in handball. (Caputo et al., 2017)

In order to safeguard to protect players performance and mental wellbeing coaches and sports professionals should incorporate stress management techniques. Create an environment to nurture a positive atmosphere. Wellbeing and performance of players, coaches and sports experts should implement stress management strategies. Foster a nurturing environment (Pagani et al., 2023).

This may involve offering resources and assistance for stress management incorporating training methods and promoting a team environment. By acknowledging the effects of stress on players and implementing suitable stress management approaches coaches can enhance the wellbeing and performance of the players while fostering a positive team dynamic. Coaches play a role in managing and addressing collegiate athlete players' stress levels. The Coaches can create a new environment by support and helping the athletes with their health and overall wellness. By leveraging existing resources and employing strategies coaches can contribute to enhancing the well-being and performance of players (Norris et al., 2017).

Coaches are essential, in managing collegiate athlete handball player's stress levels They offer advice and assistance to help athletes effectively handle stress employ training techniques, and cultivate a team atmosphere. This can result in enhanced performance and a fulfilling experience, for handball players. The primary goal of this research is to examine the abilities and mental resilience levels of handball players based on gender and classification to create a comprehensive framework that elucidates handball performance from a psychological standpoint. The research involved 174 national team handball players segmented into categories (Kristjánsdóttir et al., 2018).

## **2.5. What are the Sources of Stress in female Players**

Players' performance and general health can be impacted by a variety of stressors. Training schedules, the pressure to perform to expectations, the stress of competition, handling injuries, juggling obligations to sports and academics, intra-term conflicts, and external pressures like media attention and societal expectations are some of the sources of these factors. To provide interventions that help female athletes manage their stress levels, sports psychologists and other

support staff must have a thorough awareness of these stress variables. In the end, this help may improve their on-field performance. (Scanlan & Passer, 2016)

Players stress can arise from the mental pressures of training and competing in handball. It's crucial to take into account the challenges that female handball players face when creating policies, for reducing stress and offering support systems to help alleviate tension, among these players(Moen et al., 2018).

The researchers have found that in addition, to these stress sources factors like how organizations teammates, and teams operate the relationships, between coaches and players financial pressures and media scrutiny can all influence the stress levels felt by athletes (Nixdorf et al., 2020).

All these issues are sources of stress among players. These include training demands, performance expectations, competition pressure, injuries, balancing commitments, interpersonal conflicts within the team, external pressures, organizational and team dynamics, coach-player relationships, financial pressures, and media exposure. Coaches, sports psychologists, and other team members need to understand these stress factors when working with athletes. This will help them create ways to manage stress and provide support. This will make it possible for coaches alongside officials to create a supportive context that minimizes the risk of stress and burnout (Altfeld et al., 2018).

## **2.6. Level of Stress in Competitive Sports**

The sport and exercise psychologist claim that stress is not a physiological reaction, a stressor-response chain, or an event (stressor). All those concepts miss the key psychological component of the individual and more specifically, the individual's perceptions and cognitions. Stress is what you think it is. The key aspects of most psychological models are stressor perception and Appraisal of threat state anxiety. First, there's the trigger (, like competition, hot weather, or tiredness). Next comes the feeling of being threatened or the evaluation process. Without this perception ("I feel stressed") there would be no trigger. This evaluation isn't automatic or as straightforward as it seems. It is this sense of threat that triggers the stress reaction. Spielberg emphasizes state anxiety as the reaction, which is extensively studied by sports and exercise psychologists. In every endeavor and activity, a certain amount of stress is needed to prompt an individual into action. Competitive sports involve levels of stress; moderate and high, to extreme levels (Bhadauriya & Tripathi, 2018).

## **2.7. The influence of stress on the performance of youth Players**

Physical, psychological, and emotional stress can all have a negative impact on decision-making abilities, muscle tension, concentration, motivation, and anxiety levels. Coaches and trainers should implement stress-reduction strategies created especially for handball players to address this problem. These strategies could include creating a community, encouraging toughness relaxation techniques, and cultivating a good training atmosphere. Coaches need to understand that athletes handle stress in different ways and implement specialized stress management techniques that consider individual characteristics and particular stress triggers. Stress management techniques can help young handball players perform better and enhance their general well-being when added to their training regimen (Bhadauriya & Tripathi, 2018).

## **2.8. Effect of stress on the Players**

In sports competitions mental pressure can significantly influence a person's abilities and overall state of being (Scanlan & Passer, 2016). The coaches and athletes looking to develop and employ stress management strategies and techniques, it is helpful to first survey the main physiological, emotional, behavioral, cognitive, and attention responses to stress. A person who feel stressed the body may be reacting by increasing the blood pressure, heart rate, and breathing rate. Stress can also make you feel emotions, like fear, anxiety, anger, and irritation. The three main behavioral reactions to stress are removal, aggression, and avoidance. When under pressure people may experience difficulties in concentration, pessimistic thoughts, and lack of confidence. Stress-related attention responses can cause distraction and attention constriction. By being aware of these reactions, people can create tactics and strategies for successful stress management that focus on these many areas.(Davies & Armstrong, 2021)

Studies have indicated that psychological stress can significantly affect female youth trainees' performance and well-being. Stress can cause a person to decrease motivation, become increase anxiety, and find it difficult to pay attention and focus during training and competition. Psychological stress can also have bodily effects, such as exhaustion, tense muscles, and irregular sleep patterns. Exercise and conditioning specialists must use monitoring tools to identify early symptoms of stress and stop its harmful effects, as well as be aware of various stressors that young athletes may encounter. Coaches and trainers can maximize the performance and general well-being of female youth trainees by identifying and managing psychological stress in them (Lopes Dos Santos et al., 2020).

### **2.8.1. Physiological effect of stress on Players**

The impact of stress, on athlete's performance and well-being in sports is significant. When an individual under pressure the body may react by releasing stress hormones like adrenaline and cortisol. These hormones can increase heart rate, blood pressure, and breathing rates preparing the body for a "fight or flight" response. Additionally, stress can weaken the system making athletes more susceptible to illnesses and injuries. Prolonged stress can also disrupt sleep patterns and impede recovery processes. Contribute to health issues such as anxiety and depression. It is crucial, for athletes and sports professionals to comprehend these effects of stress and implement strategies to effectively manage it (Van Paridon et al., 2017).

### **2.9. Stress Coping Mechanisms**

Researchers should study the responses of women who play handball to stressful stimuli and how these responses affect their adaptation efforts. More research is needed to understand the effectiveness of stress coping mechanisms among female handball players, considering the specific demands and stressors of the sport. It is also important to explore the role of social support in stress management among female team handball players and identify circumstances where certain coping responses may be more effective(Nicholls et al., 2016).

Stress is crucial in sports. Players must effectively deal with it to perform well and stay healthy. Therefore, women athletes need to master techniques for handling stress to succeed. One source suggests using a problem-solving approach to seek solutions and address stressors, as well as employing emotion-focused coping methods like regulating emotions and managing distress. These coping techniques could help handball players, specifically women, overcome challenges during games and improve their performance(Bhadauriya & Tripathi, 2018).

Managing stress, in sports competitions involves strategies for helping athletes deal with pressure during their participation. Try to manage stress is more effective than trying to eliminate. Some specific methods that have been beneficial for enhancing performance in sports competitions include maintaining a mindset towards achieving goals by mentally practicing skills or game strategies, from both a spectator and participant perspective mentally rehearsing skills before actual physical performance, and engaging in imagery practice by visualizing the perfect execution of techniques (Olmedilla et al., 2019).

It is claimed that optimal self-regulation is key to successful sports performance. Individuals who do not struggle with their movement or experience muscular tension can achieve perfection through graceful movement, which minimizes exertion. The underlying process aims to shift



athletes from an external locus of control to an internal locus of control. Special attention should be given to athletes with low levels of stress, as they are more prone to showing signs of fatigue (Peterson & Seligman, 2014).

Addressing the concerns of anxiety, in athletes is vital for their overall health and athletic success. Understanding the obstacles and stressors that young female athlete's encounter is key to effectively managing anxiety. It's also crucial to educate coaches, parents, and other individuals involved in the lives of these athletes about recognizing the signs of anxiety. This will enable them to offer support and resources creating a nurturing environment that promotes mental wellbeing. To address and handle anxiety in athletes a holistic approach is necessary encompassing early detection targeted interventions, proper screening methods, and a supportive atmosphere. By implementing these strategies, we can assist athletes in overcoming challenges and equip them with the skills to manage their anxiety effectively (Ramaprabou. V, 2016).

### **2.10. Anxiety in Players**

Anxiety is a concern, for female players frequently impacting their performance and overall health. Identifying and addressing this anxiety promptly is crucial, to nurturing the wellbeing and growth of these athletes. By using tools to screen health and regularly assessing young female athlete's healthcare providers can pinpoint those who might be vulnerable, to anxiety. Once these individuals are recognized it's crucial to offer interventions to help them manage their anxiety (Correia & Rosado, 2019)

These interventions could involve teaching them techniques like setting goals, visualization, relaxation methods, positive self-talk and building a network. Moreover, it's essential to establish an inclusive atmosphere for female athletes by encouraging positive body image fostering team spirit and unity and addressing societal pressures or stereotypes that could contribute to their anxiety. By addressing and handling anxiety in athletes effectively we can support their holistic development on the field as well as in their personal lives enabling them to achieve their maximum potential in sports and beyond. Additionally, it's vital to acknowledge causes of anxiety in young female athletes such as societal expectations, body image issues, performance pressure and lack of support or resources. Understanding and tackling these factors can empower coaches, parents and healthcare professionals to create a nurturing environment that supports wellness and athletic achievement, for female athletes(Rice et al., 2019).

Addressing the concerns of anxiety, in athletes is vital for their overall health and athletic success. Understanding the obstacles and stressors that young female athlete's encounter's key to effectively managing anxiety. It's also crucial to educate coaches, parents and other individuals involved in the lives of these athletes about recognizing the signs of anxiety. This will enable them to offer support and resources creating a nurturing environment that promotes mental wellbeing. To address and handle anxiety in athletes a holistic approach is necessary encompassing early detection targeted interventions, proper screening methods and a supportive atmosphere. By implementing these strategies, we can assist athletes in overcoming challenges and equip them with the skills to manage their anxiety effectively (Ramaprabou. V, 2016).

Emphasizing the wellbeing of athletes by providing access to professionals who can address performance related anxiety is essential. Overall managing anxiety in athletes involves fostering a supportive setting understanding potential underlying causes, educating coaches and parents on this issue and ensuring access, to mental health resources tailored for sports related concerns. Recognizing and dealing with anxiety, in athletes is crucial for their health and athletic achievements. It's essential to address anxiety, in youth athletes not for their wellbeing but also to help them to improve performance in sports (Panza et al., 2020)

### **2.10.1. The Effects of Anxiety on competitive sport performance**

The sources mentioned underscore the importance of understanding the influence of anxiety, on performance and the potential adverse effects of stress on athlete's health and performance. It is vital to recognize how individual athletes react to stress and anxiety as these factors can significantly affect an athlete's performance, in sports (Ford, JFord, J., Ildefonso, K., Jones, M., & Arvinen-Barrow, M. (2017). Sport-related anxiety: current insights. Open Access Journal of Sports Medicine et al., 2017).

Studies have indicated that anxiety can lead to decreased performance, across areas in competitive sports. Athletes, coaches, and sports psychologists must acknowledge the influence of anxiety on performance and implement strategies to handle it. This involves grasping the perspectives on anxiety within the realm of sports as experts in this field have all acknowledged its effects, on performance during competitive interpersonal engagements (Kristjánsdóttir et al., 2018).

It's critical to understand how anxiety may affect athletic performance and to take preventative action to control and treat it. By doing this, players may maximize their performance and coaches

can foster a successful team environment that is encouraging and helpful (Rowland & van Lankveld, 2019).

(Petruş et al., 2022) The study investigates the relationship between athletic performance and competitive anxiety in female competitive players. It examines the impact of elevated anxiety levels on the SCM Gloria Buzau handball team's performance and the application of the Jacobson technique to improve performance and anxiety. The results show a strong inverse relationship between efficiency and anxiety, with a positive correlation between emotional regulation and game performance. The study supports the theory that consistent use of specific relaxation techniques can improve performance quality in athletes.

### **2.10.2. The Influences of Anxiety on performance of female handball Players**

This research included a total of 174 handball athletes hailing from nations encompassing both female participants. The average age of the players stood at 17 years. Handball is a team sport that involves seven players, on each side. It is known for its high intensity and fast-paced nature of the game. Players engage in handball for reasons whether it be for leisure or pursuing it as a career among other motivations (Kristjánsdóttir et al., 2018).

There were variations, in performance tactics, mental strength, and levels of anxiety among handball teams. Nonetheless, anxiety was found to correlate with resilience, in the aspect of acceptance (González-Hernández et al., 2020).

Anxiety levels in handball players range from non-anxious to extremely anxious, with some girls experiencing more somatic anxiety than boys. Minimizing anxiety can enhance mental toughness in sports. Gender influences on anxiety and performance in handball can be reduced, emphasizing the need for monitoring anxiety among female players. In a sense González-Hernández et al., (2020). In handball, nervousness can affect how well an athlete plays. A research study involving handball players showed that there was a variation, in the amount of competitive stress felt by players from various youth centers. The study also pointed out that there was a connection between a player's level of anxiety and their experience with training. Another research study emphasized how insufficient skill training, during handball matches could contribute to the anxiety felt by handball players across competition levels (Lesinger et al., 2018).

### **2.10.3. Trait Anxiety and its effect on Handball performance**

Trait anxiety, a personal trait causing exaggerated fear, can impact female handball performance, including decision-making and concentration. Understanding this link can help coaches, athletes,

and sports psychologists develop effective strategies to manage fear and improve performance. (Kristjánsdóttir et al., 2018). There are numerous determinants for success in women's handball in addition to trait anxieties such as skill level, experience, and psychological resilience (Petruş et al., 2022).

Targeted interventions can reduce trait anxieties in female handball players, improving their performance and competitive advantage. Strategies like mental toughness, resilience, and acceptance can enhance players' output. (Kristjánsdóttir et al., 2018).

In summary athlete's performance, in handball could suffer due to trait anxiety. Therefore, it is crucial for everyone involved in the sport including coaches, players and sports psychologists. To consider trait anxiety as a factor that influences performance and work on managing it to enhance outcomes (Ford, JFord, J., Ildefonso, K., Jones, M., & Arvinen-Barrow, M. (2017). Sport-related anxiety: current insights. Open Access Journal of Sports Medicine et al., 2017).

Trait anxiety is crucial for athletes' mental well-being and performance, and understanding its link can help coaches devise strategies to help players cope with pressure and excel. University students need guidance and assistance.(Reigal et al., 2020).

## **2.11. Anxiety coping Interventions in female handball players**

Practicing techniques to cope with stress can significantly boost the performance of handball players. By managing anxiety women participating in handball may experience enhanced game play during matches (Ökrös et al., 2020).

These approaches could involve practices, like relaxation techniques setting goals, visualization, positive self-talk, and seeking support, from others. Moreover, these strategies must be administered by experts versed in the psychological dynamics of athletic performance. By adopting a collaborative approach healthcare professional can ensure that female handball athletes receive efficient anxiety management techniques. Studies have indicated that female handball players often utilize coping mechanisms like seeking support and intensifying their efforts to overcome setbacks. Tailoring anxiety management techniques to meet the needs of handball players can significantly enhance their performance (Ivaskevych et al., 2019).

These strategies can assist them in acquiring the skills to handle anxiety regulate emotions and sustain focus and self-assurance during matches. Incorporating these coping mechanisms into their training regimens allows female handball players to better navigate situations and excel in their performance (Kristjánsdóttir et al., 2018).

Understanding the significance of anxiety, on performance is vital as utilizing coping mechanisms can result in improved performance increased self-assurance, and an enjoyable sporting journey for handball athletes. To add to the existing knowledge about managing anxiety, in handball players our research sought to assess how certain coping strategies can boost performance and reduce anxiety levels within this group (Ivaskevych et al., 2020).

Through conducting research, on how coping strategies impact players we aim to enhance our knowledge of the effectiveness of these interventions. The positive impact, on the performance and wellbeing of players is a focus of this study. Additionally, the research aims to explore variations in coping methods utilized by age groups and genders among players. This study seeks to offer insights into the effective coping strategies for female players highlighting how these strategies may differ based on age and gender (Rutkowska et al., 2014).

This study explores the importance of addressing anxiety-coping strategies in handball players, focusing on emotional support and goal setback management. It provides guidance for coaches and trainers to develop interventions that enhance performance and promote overall well-being. The study emphasizes the significance of training and coping methods in enhancing sports performance. (Ivaskevych et al., 2020).

Implementing these measures can improvement not the players performance but their overall happiness and positive moments, in women's players (Rutkowska et al., 2014). With this strategy, trainers and coaches can create a supportive atmosphere for handball players, which will help them succeed on and off the court. In conclusion, the sources emphasize how important it is to investigate and apply coping mechanisms in sports, including handball. Coaches and trainers may support handball players' resilience and performance through this process, which will help these people have more successful and fulfilling sporting careers. Basically, by comprehending and applying these techniques, handball players' resilience and performance can be improved by coaches and trainers (González-Hernández et al., 2020).

## **2.12. Aggression and Female Handball Players Performance**

Sports aggression is when actions result in harm without being related to the objectives of sports or similar areas. It involves displays of aggression that occur beyond the confines of sports regulations as opposed to competitive behavior, within those boundaries (Singh, M. K., & Dubey, 2015).

The performance of handball athletes can be influenced by their level of aggressiveness. Research suggests that showing confidence and managing assertiveness can improve how well they play during matches. Understanding the link, between aggression and performance allows coaches and players to develop strategies for using aggression in a manner. Athletes who can control their tendencies and use them positively on the field may experience increased focus, energy, and determination. Additionally, studies have shown that exhibiting hostility can also lead to outcomes such, as increased motivation, self-confidence, and better teamwork (Ökrös et al., 2020).

Aggression is a characteristic that individuals possess, sometimes emerging swiftly or gradually and showing it in forms. In the realm of sports, where competition's paramount key elements include rivalry facing off against opponents the desire to succeed, and delivering top-notch performances. The increasing number of incidents occurring in and, around sports facilities raises concerns about the limits of competitiveness. This situation underscores the significance of comprehending the underlying aspects of behavior. This research seeks to illuminate the reasons, behind the existence and persistence of these behaviors and explore potential solutions to tackle them (Krishnaveni & Shahin, 2018).

### **2.12.1. Types of Aggression**

In sports, aggression involves using strength or harsh words to hurt or intimidate opponents, teammates, or referees while playing. Aggression can be categorized as either instrumental or hostile.

**Instrumental aggression:** In sports, aggression involves using strength or harsh words to hurt or intimidate opponents, teammates, or referees while playing. Aggression can be categorized as either instrumental or hostile.(Kerr, 2016).

**Hostile aggression:** is spontaneous. Stems from emotions, like anger, or frustration, or takes place when the primary intention of the behavior is to harm the other player (Kerr, 2016).

### **2.12.2. The Effects of Hormones in female Players aggression**

Women experience fluctuations, in hormone levels during their cycle, which can affect their performance and how they adapt to training. This research delves into how female hormones influence factors like muscle strength, anaerobic capacity well, and performance, including aspects of aggression. The study focuses on handball players who are more susceptible to cruciate ligament injuries. Additionally, it explores the effects of energy intake on athletes emphasizing the adverse effects, on both short-term health and performance outcomes(Hansen et al., 2018).

The study of behavior has extensively examined testosterone, cortisol, and oxytocin in human animals with less focus, on humans. In this section, we delve into the evidence concerning the connections between these hormones and aggression, in women.(Denson et al., 2018)

### **2.12.2.1 Testosterone and Cortisol**

Males had five times more testosterone than females and reported being more aggressive. Despite these variations the researchers discovered a connection, between testosterone levels and self-reported aggression, in both genders (e.g., Prasad et al., 2017; Probst et al., 2018). Therefore, despite the fact that women may be less aggressive and have lower testosterone levels than men, numerous studies have found that women and men have the same beneficial connections with aggression and testosterone. (Denson et al., 2018)

### **2.12.2.2 Oxytocin (Love Hormone)**

To make sense of the conflicting results of oxytocin on social behavior, (Shamay-Tsoory & Abu-Akel, 2016) proposed the social salience hypothesis. The concept is that oxytocin boosts the recognition of cues leading to heightened reactions, to both favorable and unfavorable (such, as provocation) cues. Once oxytocin is given individuals who provoke others may be seen as hostile. In a research study 28 men and 20 women took part in a lab test that supported the theory of awareness.(Ne'eman et al., 2016).

This brief review of three hormonal mechanisms underlying aggression in women suggests few clear findings. Similar, to men the link between testosterone and aggression in women is minimal. While the dual hormone theory has been somewhat successful in predicting aggression in men its effectiveness is less evident in women. Data on estradiol and progesterone hint at the possibility that high levels of these hormones may decrease aggression and self-harm among women but further research is required. Studies on oxytocin show that this hormone has the potential to both reduce and increase aggression in women. The rise in behavior can be attributed to a mix of the hormones calming effects and heightened responsiveness, to provocation. The social salience hypothesis provides a promising framework from which to test specific predictions about conditions under which oxytocin enhances or inhibits aggression in women(Denson et al., 2018). Aggression, a behavior has garnered significant attention in studies focusing on men. However, research, on women's aggression has been lacking. It is proposed that further theory-driven investigations are necessary to understand aggression, in women. This line of inquiry could lead to the creation of evidence-based interventions tailored to address gender-specific factors influencing aggressive behavior (Denson et al., 2018).

### **2.13. Factors Influencing Aggression in female handball players**

Aggression is influenced by factors such, as characteristics and the environment in which one is situated. For handball athletes' factors like the level of competitiveness in the sport exposure to role model's intensity of interactions during play, team dynamics, and social relationships can all contribute to aggression. The coaching techniques employed by the coach also play a role in shaping aggression levels. Additionally, performance expectations individual personality traits, past instances of aggression within the sport, and encounters with aggression, beyond sports can impact a player's aggressiveness (Manuel Sofia & Cruz, 2015).

The study examined the psychological impact of aggression on the female handball team's performance. It involved 52 players aged 16-22. The research found varying aggression levels among female athletes, and a connection between aggression and performance. The study suggests reinforcement and winning games influence overall performance in handball.(Kousar et al., 2022). In dealing with aggression, among handball players it's important for researchers, coaches and athletes to consider factors such as the level of competition influence of role models team dynamics, coaching methods, stress levels, personal traits, previous experiences, societal norms and gender roles. This holistic approach aims to promote behavior and reduce instances of aggression, within the sport(Manuel Sofia & Cruz, 2015).

Aggression in handball can boost motivation, confidence, and competitiveness, but excessive aggression can lead to fouls, penalties, and distractions. Understanding and managing aggression is crucial for athletes and coaches, considering psychological factors like personality traits and past competitive experiences. (Oytun et al., 2021).

### **2.14. Aggression Management Strategies in female handball players**

To promote an fair playing environment that enhances performance and sportsmanship it is beneficial to implement strategies, for managing aggression among handball players (Ökrös et al., 2020).

By handling aggression in players, their mental wellbeing can be improved stress levels. Overall skills enhanced. Coaches and trainers should assess each players characteristics and tailor aggression management approaches accordingly. Consistent application of these techniques during training sessions and competitive matches is essential, for cultivating an just playing atmosphere ultimately leading to performance and player development(Stornes & Roland, 2014).



The sources offer support, for the importance of utilizing strategies to manage aggression among handball players. Our study delved into the connection between toughness training and coping abilities in handball players. Ragabs research findings highlight the benefits of incorporating mental toughness training programs in player development to improve coping skills and shooting accuracy(Ökrös et al., 2020).

According to Tins George and Mohan S, (2022), The study examined stress and aggression levels among basketball and handball players. Basketball players had higher stress levels and aggression, while handball players displayed lower stress levels and aggression. Strategies to promote self-discipline and team unity could be beneficial.

### **2.15. Interrelationships of Stress-Anxiety in female players**

The complex connections and influencing elements of stress and anxiety are pivotal, in the exists of women handball players as indicated by Reigal et al., (2020). The correlation between stress and aggression in basketball and handball player relationships was analyzed using product moment correlation techniques revealing a link between stress and aggression among both groups. The study also identified factors influencing stress and anxiety levels, such as self-regulation during training and relaxation techniques during competitions(Hagan et al., 2017).

The research underlines the significance of toughness training and support, in boosting resilience and strength, in handball players highlighting the role of coaching in team dynamics and improving the performance of female athletes. (Ivaskevych et al., 2020).

Stress and anxiety in handball players are crucial for their performance and mental health. Sports psychology should be tailored to female athletes' needs, emphasizing resilience, stress control, and anxiety relief. Tailored interventions and psychological training can improve coping skills, resilience, and overall performance among handball players.(Ökrös et al., 2020).

The sources stress the necessity for research. Focus on the psychological aspects affecting female football players performance (Pettersen et al., 2022). In general, this literature emphasized the importance of acknowledging and tackling the challenges faced by handball athletes. They offer insights, into how psychological aspects influence the performance of handball players while also promoting research and specific actions to improve the health and performance of both male and female handball athletes. Ultimately these sources underscore the significance of factors concerning handball player's performance, such, as anxiety levels, mood states, self-confidence, and overall team achievement (Reigal et al., 2020).

## **2.16. Interrelationships of Anxiety-Aggression in female handball players**

The research finding revealed a relation between aggressiveness and current feelings of anxiety as well, as communication-based aggression and physical aggression. Female athletes had higher trait anxiety than males. This suggests that appropriate coping skills are crucial for athletes, as they face similar challenges as everyday people (Bite-Trpkovici et al., 2022)

Understanding the interaction, between anxiety and aggression in handball players requires exploring factors that can impact this relationship. These factors include team dynamics, coaching methods, player traits, and external stressors like pressure and personal challenges. By analyzing these elements researchers can develop an understanding of how anxiety and aggression are connected within the context of handball. It is important to focus on how anxiety levels, aggression, competitiveness, team dynamics, coaching styles, player characteristics, and cultural influences all intersect, in this situation (Kristjánsdóttir et al., 2018).

The research aims to determine if elevated levels of anxiety are linked to levels of aggression, in handball players. To accomplish these researchers, plan to conduct surveys to assess anxiety levels and tendencies toward aggression among handball players. Furthermore, the study will investigate variables such as competitiveness, age, and experience to comprehend the relationship between anxiety and aggression, in handball players (Singh, M. K., & Dubey, 2015).

This study explores the link between anxiety levels and aggression in handball players, considering factors like competitiveness, age, and experience. It provides insights for coaches, trainers, and sports psychologists to develop strategies to address anxiety issues and improve behavior among players. (Pačesová & Šmela, 2020)

This research explores the relationship between anxiety and aggression in handball players, aiming to inform interventions to improve performance and mental wellness. It highlights the correlation between anxiety levels and aggression, highlighting the importance of understanding these factors for effective team environment and performance enhancement (Reigal et al., 2019).

## **2.17. Moderating Factors of psychological factors stress, anxiety and aggression in female handball**

The implications of this study extend beyond the realm of sports psychology potentially offering insights into managing aggression and anxiety in team sports athletes while also aiding in the formulation of targeted approaches to boost wellness and improve performance among handball players. In essence, this research seeks to explore how anxiety levels impact aggression in handball

players by investigating moderating factors through statistical analysis (Singh, M. K., & Dubey, 2015).

Female players stress in handball is influenced by psychological aspects, external factors like norms and cultural expectations, and gender roles. Understanding these influencing elements is crucial for understanding the connection between factors and performance outcomes. (Tins George and Mohan S, 2022)

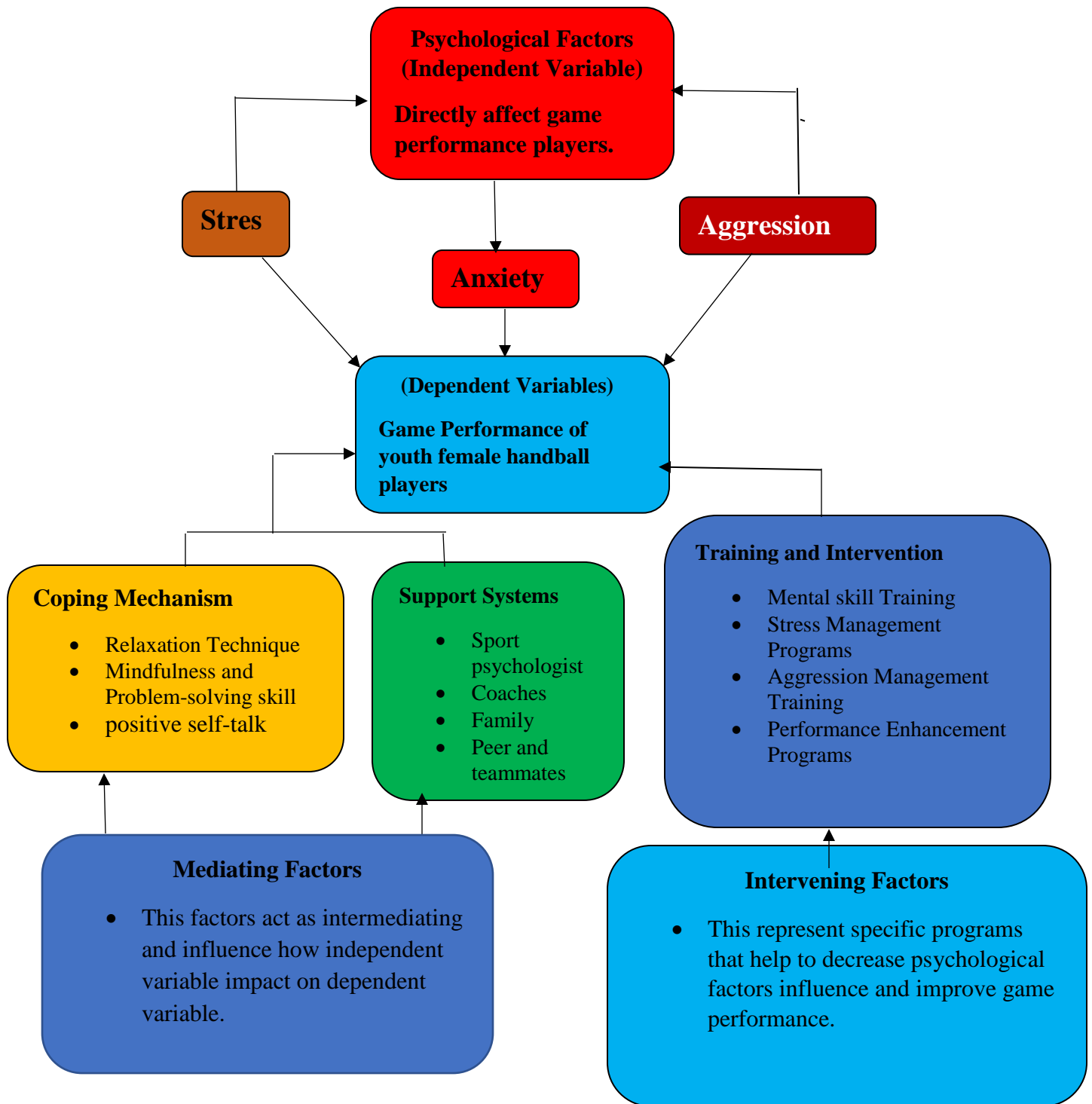
Researchers can understand female handball players' aggression challenges, enabling coaches, trainers, and sports psychologists to develop personalized interventions to improve their health and performance, significantly impacting their success and overall welfare.(Mughal et al., 2019).

Handball players aggression are significantly influenced by team dynamics, coaching methods, personal history, and social and cultural factors. Understanding and addressing these factors is crucial for their well-being and performance. The demands, pressure situations, and team dynamics in handball require addressing these influencing aspects to ensure the mental health and performance of female handball players. (Bite-Trpkovici et al., 2022).

In essence, recognizing and addressing the moderating influences of elements among handball players plays a vital role in managing stress, anxiety, and aggression in their sport while nurturing their overall welfare. (Reigal et al., 2019) Coaches, trainers and sports psychologists hold a position in formulating targeted interventions to support the well-being and performance of female players for their success, in various aspects of life (Pagani et al., 2023).

## **2.18. Conceptual Framework**

Based on understandings gained from the relationships, concepts, and research findings analyzed in the study's literature review, the researcher draws conceptual framework or infers a picture of the relationship that existed between the dependent variable and independent variables examined in the study. Stress, anxiety, and aggression in young female handball players performance. And these psychological factors had Moderated, this includes coping mechanisms, support systems, and training programs. Youth female handball players use relaxation techniques, time management, and positive self-talk to manage these challenges.



**Figure 1: Conceptual Framework (Adopted from literature and own design)**

## **CHAPTER THREE**

### **RESEARCH METHODS**

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

Research design aims to balance efficiency of technique with relevance to the study's purpose by setting up parameters for data collection and analysis (Kothari C.R., 2004). Research that aims to explain the relationship or association between variables and predicting results is known as a correlational study (Creswell, 2021). The researcher was employed descriptive correlational research design. And this kind of design has providing to study the association between variables and explain the relation between variables.

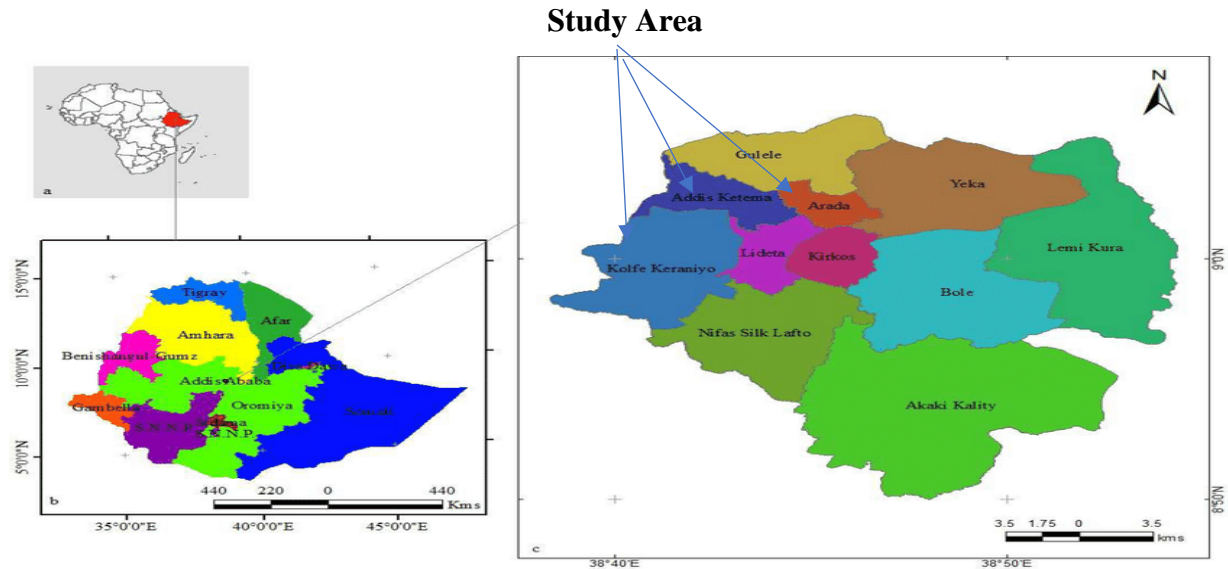
#### **3.2. Research Approach**

The study employed a quantitative approach, depending on the suitability and type of the data, to identify the effect of stress, anxiety, and aggression on game performance and to recommend the appropriate way of psychology to improve game performance.

#### **3.3. The Study Area**

The investigation was carried out in Addis Ababa City, which serves as the political center of Ethiopia. Furthermore, it stands as the most populous city in the nation, boasting a populace of 3,384,569 individuals as per the 2007 census. Nevertheless, doubts linger regarding the accuracy of this figure, suggesting an underestimation of the city's inhabitants. Addis Ababa has experienced a steady surge in its annual growth rate over recent years, with the population approaching the 4 million mark as of 2017. The most recent census, originally planned for the 2018 to 2019 fiscal period, faced delays due to security issues between 2017 and 2018. From a demographic perspective, the last census indicated a higher proportion of female residents in Addis Ababa compared to their male counterparts. Notably, nearly a quarter of Ethiopia's urban population resides in the capital city.

The study was focused on under seventeen female handball trainees in Addis Ababa, focus on Addis Ketema woreda 9, Kolfe Keranio wereda 8, Arada wereda 5, and Ras Hailu Sport and Educational Center Female Youth Handball trainees. Four female youth handball projects are registered in Addis Ababa City and from this the two are known and supported Addis Ababa Handball Federation. The other three are supported by woredas level.



**Figure 2: Map of The Study Area**

### **3.4. The study Population**

This study was conducted in Addis Ababa City Administration and totally there are four female handball projects. These projects are found in Addis Ketema, Kolfe Keranio Finans, Arada Afincho ber and Ras Hailu under seventeen Female Handball trainees. Both Addis ketema and Kolfe Finans under seventeen female handball projects were organized in 2013 E.C. According to Addis Ababa Handball Federation (AAHF) the other two Afincho ber and Ras Hailu are organized in 2015 E.C. These four projects have 25 members' trainees for each and the total population are 100 trainees.

### **3.5. Data Source Type, Collection Technique(s) and Procedures (s)**

#### **3.5.1. Types of data source**

The researcher was used two types of data sources, primary and secondary data sources. it helps to investigate the effect of stress, anxiety, and aggression on female handball players game performance. The primary data sources (first-hand information). The data was collected by using standard questionnaires from the project players. Whereas, the game performance data were collected through real-time game observation by the support of seven assistant and the researcher. And the secondary data collected from websites, including related journal articles, books, internet sources, and previous studies on related psychological factors, and performance which were used as a source of secondary data.

These primary necessary documents, the researcher mainly used real time game observation as a source of information for the dependent variable (young females' handball players' performance).

Based on this, even though the data from the real time game observation are continuous data, to compare the measurements of the dependent variable with the independent variables, the researcher change continues data in to five-point Likert scale according to the tasks set in each game observation, the recorded continues data is converted into a five-point Likert scale and presented as follows. The game observation, the minimum score is 0 and the maximum score is 49. Based on this, the researcher created the following rating scale depending on game scoreboard:

1. Below 10 = very low
2. 11-20 = low
3. 21-30 = medium
4. 31 -40 = high
5. Above 40 = very high

### **3.5.2. Data Collection Procedures**

#### **3.5.2.1. Questionnaires**

According to Ewen 2018, data collection is the process of collecting data aiming to gain an understanding of the research topic and enabling the researcher to find answers to the research questions. It depends on the aim and objectives of the research, because the data was collected through key Standard questionnaires from trainees. The researcher was used these standard questionnaires for aggression, aggression questionnaires.(Buss & Perry, 1992), for Stress used Perceived Stress Scale (PSS), (Cohen et al., 1983). and for anxiety the researcher was used sport competition anxiety test (SCAT) (Martens,1977). and the standard questionnaires were prepared in English and when the time of data collection it was translated into Amharic version based on the respondent's understanding level and clarity of their answer.

#### **3.5.2.2. Game Observation check list**

Handball is a game in which setting up a goal is the result of both direct and indirect actions, as well as the use of free spaces and passes However, different goals must be achieved during different phases of the game, which are attack, in which a team attempts to score a goal. Defense, in which a player tries to recover possession and prevent the opposing team from scoring a goal; and. goalkeeper, in which a player attempts to prevent a goal within the goal area. These dimensions are combined to achieve match success, and they occur in different areas of the field.(Vuleta et al., 2014)

### **3.6. Sampling Techniques**

In this study, the researcher was used a non-probability sampling method, and the compressive and purposive sampling techniques were applied. The reason for used purposive sampling was to exclude the five players from each project that included in the pilot study, and they were not aimed to include the main study. And because of the numbers of young female projects are limited in four female youth handball projects and the researcher decided to include all four projects in this study. The researcher used compressive sampling to include all the youth female handball projects in Addis Ababa City Administration.

### **3.7. Data Analysis Techniques**

The data was gathered, then systematically arranged and inputted into a computer for analysis purposes. And used the Statistical Package for the Social Sciences (SPSS) Version 27, the quantitative data was analyzed. The analysis process encompassed the utilization of descriptive and inferential statistics. The quantitative data experienced examination for frequency, mean, standard deviation, and percentage of occurrence. Various inferential statistics, including regression, Spearman correlation coefficient, independent sample t-test, and Two-Way ANOVA, were employed to ascertain the mean difference among the four-youth female handball project.

#### **3.7.1. Model specification**

Linear regression is a method of estimating or predicting a value on some dependent variable given the values of one or more independent variables. Statistical regression examines the association or relationship between variables. In this study multiple-regression model was used. Multiple regression analysis considers the inter-correlations among all variables involved. This method also considers the correlations among the predictor scores (Adams et al., 2012) They added multiple regression analysis, which means more than one predictor is jointly regressed against the criterion variable. This method was used to determine since the independent variables were explained the variance in dependent variable.

To examine the influence of the explanatory variables, the functional relationship is specifying as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon_i$$

Where:

Y is the response or dependent variable- Game performance

X is the Explanatory variable-which represents:

**X1**= Stress, **X2**= Anxiety, **X3**= Aggression,



$\beta_0$  is the intercept term-constant which would be equal to the mean if all slope coefficients are 0.  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  are the coefficients associated with each dependent variable which measures the change in the mean value of Y, per unit change in their respective independent variables. On the other hand,  $\epsilon_i$  represents the sample error term.

### 3.8. Reliability and Validity of data collection Instruments

The researcher modified the set of questions based primarily on the answers provided by the trainees in the questionnaire that was prepared for them. The models were using those of Aggression, aggression questionnaires (Buss & Perry, 1992), for stress, Perceived Stress Scale (Cohen & Williamson, 1988) and for anxiety used (SCAT) (Martens,1979).The researcher believed that by used these questionnaire approaches, the dependability of the data collected increased, aiding in the understanding of the issue and the identification of a suitable remedy.

#### 3.8.1. Pilot study

The researcher was conducted a pilot study with twenty under seventeen (U-17) female handball trainees selected five respondents from each four projects who are not participated in the final data collection. This is to assess the reliability and validity of the questionnaire using Cronbach's Alpha value. The results were determined whether there is a strong and statistically significant relationship ( $\alpha$ ) between the responses. Unclear statements were reformulated in order to improve the reliability of the instruments used for data collection prior to the start of the actual research. This information was assisted the researcher in determining if the questionnaires are valid and reliable for the selected sample population of trainees.

Reliability tests resulting in an alpha of .7 are generally accepted as having high reliability (Rovai, Alfred P., Baker, 2013).

**Table 2: Cronbach alpha coefficient of pilot study**

<b>Dependent variable/independent variables</b>	<b>cronbach's alpha</b>	<b>No of items</b>
Stress	0.782	10
Anxiety	0.762	15
Aggression	0.854	15
<b>Total</b>	<b>0.792</b>	<b>35</b>

The above cronbach's alphas are gathered from 20 respondents towards the pilot test survey before the main research was conducted. Based on this, as we can see from the cronbach's alpha table above, all variables have an accepted as having high reliability strength of reliability regarding to (Rovai, Alfred P., Baker, 2013) which have more than 0.7 reliability Coefficient.

### **3.9. Ethical Considerations**

Research ethics concerns include applying moral principles to study design, execution, deference to respondents and society, resource and research output utilization, and research regulation. Data gathering, and questionnaire distribution all heavily depend on ethical issues. The ethical issues surrounding the study must be known to the researcher. The introduction was also included on the first page of the questionnaires. Every prospective participant was received information regarding the study's methodology, and the researcher was gone over the goals and importance of the investigation. When gathering data and conducting any relevant research, the researcher has had a favorable attitude toward the respondents

## CHAPTER FOUR

### RESULT AND FINDINGS

#### 4.1. Introduction

This chapter presents the result and discussion of empirical findings. The research instrument used questionnaire and real game observation check list. This section is divided into subsections such as the response rate, demographic characteristics of respondents, descriptive statistical analysis of research variables, and correlation test, normality of data test, multicollinearity and linearity of data test. Finally, the result was analyzed using descriptive presented first followed by the inferential statistics models were applied by the help of statistical software packages (SPSS) version 27. The descriptive statistics analysis was employed using tables, mean, and standard deviations.

#### 4.2. Response Rate

The researcher issued by hand delivery for 80 under seventeen (U-17) Female Handball trainees. Based on this, 80 questionnaires out of the 80 issued were returned representing 100% response rate.

#### 4.3. Demographic Profile respondents

This section analyses the, Age, Education level, Project waiting time and Training time.

**Table 3: Demographic Characteristics of Respondents**

Demographic item	Classification	Frequency	Percentage
Age	15 years	60	75
	16 years	20	25
	<b>Total</b>	<b>80</b>	<b>100</b>
Training age (Project waiting time)	One year	46	57.5
	Two years	23	28.7
	Three years	11	13.8
	<b>Total</b>	<b>80</b>	<b>100</b>
Education level	6 <sup>th</sup>	35	43.8
	7 <sup>th</sup>	27	33.8
	8 <sup>th</sup>	18	22.5
	<b>Total</b>	<b>80</b>	<b>100</b>
Training frequency per week	Two days per a week	1	1.3
	Three days per a week	79	98.8
	<b>Total</b>	<b>80</b>	<b>100</b>

The demographic data for age of the respondents revealed that out of 80, three-fourth of respondents was at the age of 15 years old 60 (75%). The rest groups 20 (25%) were under the age categories of 16 years old.

The researcher sought to find out the qualifications possessed by the respondents by asking them to indicate their level of professional qualification. table 3 shows the majority of the respondents have grade 6th educational background at 35%, followed by grade 7th at (27%) and the rest are grade 8th at (18%).

Table 3 indicates that 57.5% of the respondents had one-year project life in the training center, 25% of the respondents had two years project life in the training center and the rest 11% of the respondents had three years waiting time in the training centers.

This data clearly showed that, training had delivered for three days in a week. This is confirmed by 98.8% of the respondents.

#### 4.4. Descriptive results of the study

**Table 4: Descriptive Statistics of the study variables**

	N	Minimum	Maximum	Mean	Std. Deviation
Stress	80	1.00	5.00	3.1143	1.24299
Anxiety	80	1.00	3.50	2.4469	.70227
Aggression	80	1.00	3.50	2.4021	.68575

**Note:** The cut off points are: Low (1 - 2.339), mid (2.34 - 3.669) and High (3.67 - 5) (A. M. Ali et al., 2023) (Basavaraj, 2016)

The cut-off score is the point at which people are grouped based on the measured levels they meet and which aids in the interpretation of these levels (Bahar Ş S & Deniz, 2019).

The average number of respondents to the variable stress has the highest average or mean number of respondents ( $\bar{x}= 3.11$ ). While the variable aggression has the lowest average or mean number of respondents ( $\bar{x}= 2.4$ ).

The maximum variability of the respondents is occurred to the variable stress with standard deviation ( $S = 1.24$ ), while the minimum variability of the respondents is occurred to the variable aggression having standard deviation ( $S = 0.69$ ). Based on the cut-off point the respondents were included in moderate level of stress, anxiety and aggression.

## 4.5. Inferential statistics

### 4.5.1. Independent sample t-test

Independent samples t-test is used to compare two groups whose means are not dependent on one another (Gerald, 2018). In terms an independent sample refers to a situation where each groups individual is treated separately. Independent of each other. Independent groups in this study are games (Game 1= Addis ketema vs. Arada, Game 2= Addis ketema vs. Rashailu, Game 3= Kolfe vs. Arada, Game 4= Kolfe vs. Rashailu).

#### 4.5.1.1. Game one Performance (Addis Ketema vs. Arada)

**Table 5: Group Statistics for Game One**

	Project name	N	Mean	Std. Deviation	Std. Error Mean
Performance	Addisketema	20	3.3167	.59824	.13377
	Arada	20	3.4167	.56777	.12696

**Table 6: Independent t test Game One**

		Levene's Test for Equality of Variances				
		F	Sig.	t	df	Sig. (2-tailed)
Performance	Equal variances assumed	.060	.808	-.542	38	.591
	Equal variances not assumed			-.542	37.897	.591

The first thing to note is the mean values in the Group Statistics *table 5* Here one can see that on average Arada game performance is to some extent greater than Addis ketema game performance (M= 3.4167 against M= 3.3167).

The question is whether the difference between the two means is big enough so that I can be confident it is not a function of random error. This is where the t test comes into play.

Based on this the above **table 6** is reporting F value of .060 and *p*-value of .808. This is not considered as a significant result (standard alpha levels are .05 and .01). Therefore, we can be confident in accepting the null hypothesis that holds there is no difference between Addis ketema and Arada game performance.

**4.5.1.2. Game Two Performance (Addis ketema vs. Rashailu)**

**Table 7: Group Statistics for Game Two**

	Project name	N	Mean	Std. Deviation	Std. Error
					Mean
Performance	Rashailu	20	3.5167	.60674	.13567
	Addis ketema	20	3.3167	.59824	.13377

**Table 8: Independent t test for Game Two**

		Levene's Test for Equality of Variances			t	df	Sig. (2-tailed)
		F	Sig.				
Performance	Equal variances assumed	.112	.740	1.050	38	.300	
	Equal variances not assumed			1.050	37.992	.300	

As **table 7** above indicated that, the mean values of Rashailu performance is to some extent greater than Addis ketema game performance (M= 3.5167 and M= 3.3167 respectively). But whether the difference between the two means is big enough the t test comes into play.

Based on this the above **table 8** is reporting that, F value is .112 and *p*-value of .740. This is not considered as a significant result (standard alpha levels are .05 and .01). Therefore, we can be confident in accepting the null hypothesis that holds that there is no difference between Rashailu and Arada game performance.

**4.5.1.3. Game Three Performance (Kolfe vs. Arada)**

**Table 9: Group statistics for Game Three**

	Project name	N	Mean	Std. Deviation	Std. Error
					Mean
Performance	Kolfe	20	3.4833	.62688	.14018
	Arada	20	3.4167	.56777	.12696

**Table 10: Independent t test for Game Three**

		Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)
		F	Sig.			
Performance	Equal variances assumed	.108	.744	.353	38	.726
	Equal variances not assumed			.353	37.633	.726

As **table 9** shows above indicated that, the mean values of Kolfe performance is to some extent greater than Arada game performance (M= 3.4833 and M= 3.4167 respectively). But whether the difference between the two means is big enough the t test comes into play.

Based on this the above **table 10** is reporting that, F value is .108 and *p*-value of .744. This is not considered as a significant result (standard alpha levels are .05 and .01). Therefore, we can be confident in accepting the null hypothesis that holds that there is no difference between Kolfe and Arada game performance.

**4.5.1.4. Game Four Performance (Kolfe vs. Rashailu)**

**Table 11: Group Statistics for Game Four**

	Project name	N	Mean	Std. Deviation	Std. Error
					Mean
Performance	Rashailu	20	3.5167	.60674	.13567
	Kolfe	20	3.4833	.62688	.14018

**Table 12: Independent t test for Game Four**

		Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)
		F	Sig.			
Performance	Equal variances assumed	.165	.687	.171	38	.865
	Equal variances not assumed			.171	37.960	.865

As **table 11** above indicated that, the mean values of Rashailu performance is to some extent greater than Kolfe game performance (M= 3.5167 and M= 3.4833 respectively). But whether the difference between the two means is big enough the t test comes into play.

Based on this the above **table 12** is reporting that, F value is .165 and *p*-value of .687. This is not considered as a significant result (standard alpha levels are .05 and .01). Therefore, we can be

confident in accepting the null hypothesis that holds that there is no difference between Rashailu and Kolfe game performance.

#### 4.5.2. Two ways ANOVA

The actual result of the two-way ANOVA namely, whether any of the four training centers is statistically significant is shown in the Tests of Between-Subjects Effects table, as shown below:

**Table 13: Two-way ANOVA**

Tests of Between-Subjects Effects

Dependent Variable: Game performance

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.467 <sup>a</sup>	3	.156	.432	.731	.017
Intercept	943.022	1	943.022	2617.009	.000	.972
Training centers	.467	3	.156	.432	.731	.017
Error	27.386	76	.360			
Total	970.875	80				
Corrected Total	27.853	79				

a. R Squared = .017 (Adjusted R Squared = -.022)

The *table 13* particular row one can interested in the "training center" row and this is highlighted above. This row informs whether training centers have a statistically significant effect on the dependent variable, "Game performance". It is important to first look at the "training centers" interaction as this will determine how one can interpret their results. One can see from the "Sig." column that it has a statistically insignificant interaction at the  $p = .731$  level. We can see from the table above that there was no statistically significant difference in mean interest in (project) training centers between Rashailu, Addis ketema, Arada and Kolfe ( $p = .731$ ).

#### 4.6. Correlation Analysis

For the purpose of assessing the objectives of the study, spearman correlation coefficient and regression analyses were performed. With the aid of these statistical techniques, conclusions are drawn with regard to the sample and decisions are made with respect to the research questions.

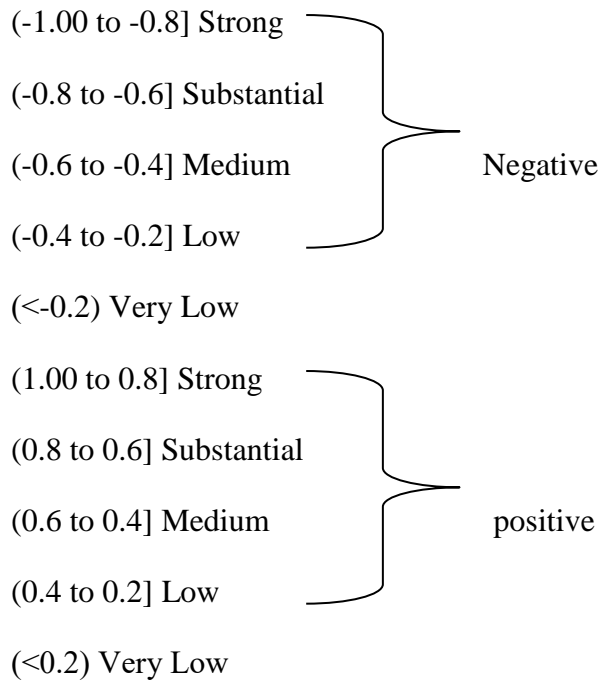
In this study Spearman Correlation Coefficient was used to determine whether there is significant relationship between factors (Stress, Anxiety and Aggression) and Game Performance. To know whether there is a correlation between independent and dependent variables the Spearman correlation coefficient was examined.

To know whether there is a correlation between the variables and what the level is of the linear relationship between the variables, the Spearman correlation coefficient was examined.



The degree and direction of a linear relationship between two variables are indicated by this coefficient. The Spearman Correlation coefficient (r) can vary from -1 to +1, the larger the value, the stronger the relationship. A coefficient +1 indicates a strong positive relationship and a coefficient of -1 indicates a perfect negative relationship. 0 indicates that there is no linear relationship between the variables (K. Ali & Al-Hameed, 2022).

According to Duncan (2004), The results of correlation coefficient may be interpreted as follows.



**Table 14: Inter-correlation between all variables understudy**

		Stress	Anxiety	Aggression	Performance
Stress	Coefficient	1.000	.783**	.835**	-.782**
Anxiety	Coefficient	.783**	1.000	.905**	-.870**
Aggression	Coefficient	.835**	.905**	1.000	-.883**
Performance	Coefficient	-.782**	-.870**	-.883**	1.000
	Sig. (2-tailed)	.000	.000	.000	.
	N	80	80	80	80

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The correlation result of this study shows that, strong and statistically significant positive relationship was found between the independent variables (Aggression and Anxiety)  $r=0.905$ . Whereas, the dependent variable (Game performance) have negative relationship with Aggression and Anxiety ( $r = -.883, p < .01$  and  $r = -.870, p < .01$  Respectively) o. While, substantial negative significant relationship was found between the independent variable (Stress) and dependent

variable (Game performance) ( $r = -.782, p < .01$ ). From this investigation it can be distinguished that, the three major variables (Stress, Anxiety and Aggression) have significant and negative relationship with on youth females' handball players' performance in the study area.

#### 4.7. Multiple Regression Assumptions

Regression analysis is a statistical technique that investigates the influence of independent variables on the dependent variable. Based on this, multiple regression analysis was employed to investigate the effect of psychological variables stress, anxiety and aggression on young female handball project players performance, in Addis Ababa City. Before going to analyze multiple regressions test results, we need to check the assumptions of multiple regression analysis.

##### 4.7.1. Normality Test

Testing for normal distribution of the dependent variable is another crucial presumption in regression analysis. Normality describes a bell-shaped, symmetrical curve with the highest frequency of scores in the middle paired with smaller frequencies towards the extremes (Pallant, 2007). The dependent variable of this study was Game performance. When the dependent variable is not distributed normally regression analysis becomes less effective because it goes against an assumption of the model. Therefore, in our study we used histogram to check normality assumption. The histogram given below shows more or less it satisfies the normality assumption (see Fig 3).

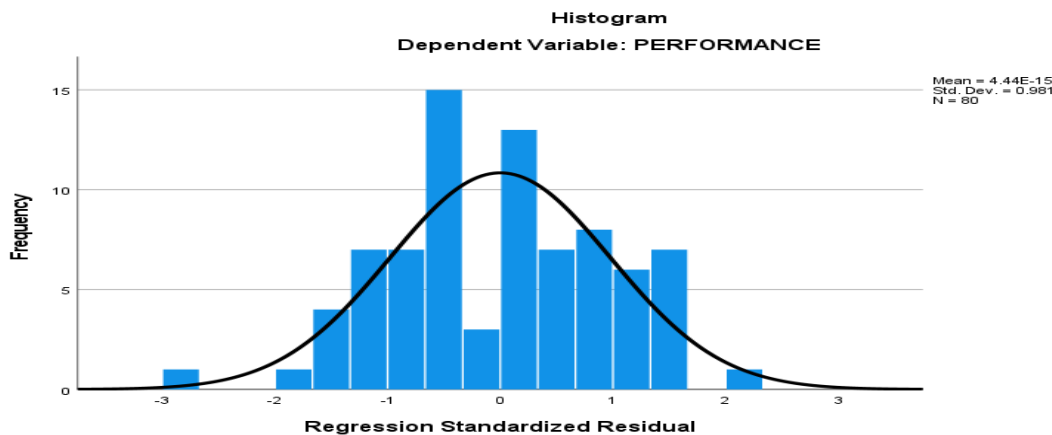


Figure 3: Normality test of Dependent Variable

##### 4.7.2. Multicollinearity Test

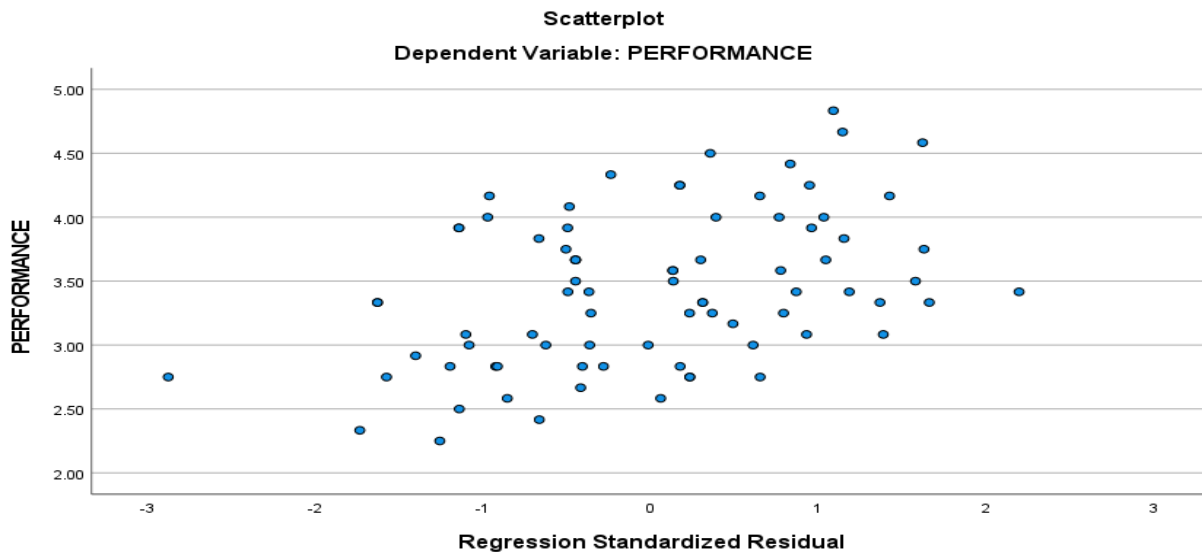
The presence of correlations between the predictors is termed co linearity (for a relationship between two predictor variables) or multicollinearity (for relationships between more than two

predictors). In severe cases (such as a perfect correlation between two or more predictors) multi-co linearity can indicate that no unique least squares solution to a regression analysis can be computed, and the variance inflation factor is one known measure of multi-co linearity, although numerous other measures are available. For this study the researcher applied tolerance and VIF statistics to check multi-collinearity problem. Moreover, in this study none of the variables were VIF exceeds 10 suggesting that no multicollinearity problem (see below table 15).

**Table 15: The Multicollinearity Test Distribution Result**

Model	Co linearity statistics	
	Tolerance	VIF
1 Constant		
Stress	.290	3.445
Anxiety	.159	6.299
Aggression	.129	7.743

### 4.7.3. Homoscedasticity test



**Figure 4: Scatter Plot of Regression of Standardized Residuals**

Homoscedasticity errors are generally assumed to have an unfamiliar but finite variance that is constant across all levels of the predictor variables. As we have seen in Figure 4 above, it can be assured that the point is random and to some extent evenly throughout the scattered diagram and no Substantiation of channel- like the shape of points on one side than the other is observed, so no heteroscedasticity in the data is verified.

#### 4.7.4. Linearity Assumptions

The model that shares the response Y to the predictors X1, X2, X3... XN is assumed to be linear in the regression parameters. This means that Standard multiple regression can only precisely estimate the relationship between dependent and independent variables if the connections are direct in nature. As in the equation:  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \dots + \beta_N X_N$  This regression equation is still a linear regression equation because Y is modeled as a linear function of the parameters. According to the information in graph 5 below indicated Normal P-P Plots show that this assumption had been met for this study.

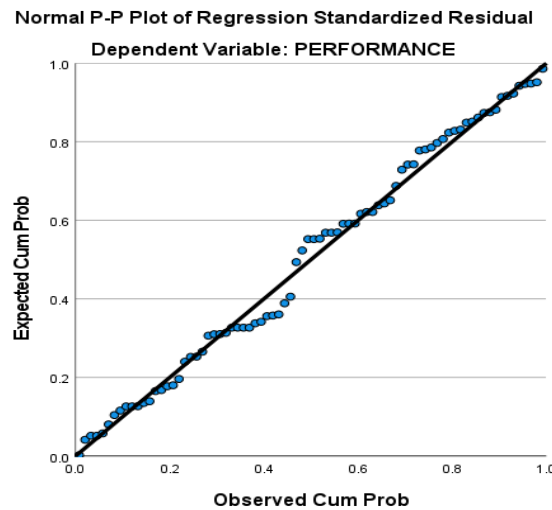


Figure 5: Normal P-P Plot

#### 4.8. Regression Result and Discussion

The regression analysis was used to measure the association between the independent and the dependent variables. Regression test is used to recognize the ability of each individual independent variable (Stress, Anxiety and Aggression) to predict the dependent variable (Game Performance).

##### 4.8.1. Regression between independent variables and dependent variable

Table 16: Regression Model Summary

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.908 <sup>a</sup>	.825	.818	.25318

a. Predictors: (Constant), Stress, Anxiety and Aggression

b. Dependent Variable: Game Performance

As indicated in *table 16* above, the adjusted R Square value represents the explanation of independent variable (Stress, Anxiety and Aggression) over dependent variable (Game Performance). From the model summary, the adjusted R square from the table above showed .818 which means that the independent variables can explain the dependent variable by 81.8%. However, there is 18.2% of the variance remained unexplained in this study.

#### 4.9. ANOVA of Independent and Dependent variable

**Table 17: ANOVA of Independent and Dependent Variables**

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.981	3	7.660	119.501	.000 <sup>b</sup>
	Residual	4.872	76	.064		
	Total	27.853	79			

a. Dependent Variable: Game Performance

b. Predictors: (Constant), Stress, Anxiety and Aggression

In the *table 17* above, indicated that ANOVA of the results from the data gathered from the respondents showed a strong positive significant regression for the reason that  $p=0.000$  which is  $<0.05$ . This meant that the listed independent variables have a strong significant influence on the dependent variable in the study area.

#### 4.10. Coefficient of independent on Dependent variable

**Table 18: Coefficient of Independent and Dependent Variables**

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
1 (Constant)	5.319	.109		48.965	.000
Stress	-.058	.043	-.121	-1.361	.178
Anxiety	-.364	.102	-.430	-3.573	.001
Aggression	-.339	.116	-.392	-2.936	.004

Based on the above *table 18* Game performance = 5.319 (Constant) + -.058 (Stress) + -.364 (Anxiety) + -.339 (Aggression)

The p-value for Anxiety is 0.001 which is less than alpha 0.05, its shows that Anxiety was significance to predict Game performance for this study. Aggression also shows significance to predict dependent variable (Game performance) where the p-value for the independent variable was .004 which is less than alpha 0.05. While, Stress result reveal that it was found to be

insignificant to predict the dependent variable game performance, since the p-value for this independent variable was 0.178 which is greater than alpha 0.05.

**Table 19: Standardized Coefficient of beta table**

<b>Independent variables</b>	<b>Standardized Coefficient beta</b>	<b>Ranking</b>
Stress	-.121	3
Anxiety	-.430	1
Aggression	-.392	2

Based on the above *Table 19* shows Anxiety is the predict variables that donate the highest to variation of the dependent variable (Game performance) because of beta value (-.430). This result is supported by (Reigal *et al.*, 2019) And (Oytun *et al.*, 2021). Various statistical techniques, such, as regression and correlation were employed to analyze these connections. The findings indicated a link between stress, anxiety and performance in athletes. Additionally, the study identified factors influencing the relationship, between stress and anxiety These results highlight the need to treat handball trainees. stress and anxiety while putting strategies in place to lessen their negative effects on performance.

Aggression contributes the second greatest to distinction of the dependent variable at beta value (-.392). It indicates that Aggression is the second strongest exclusive contribution to predict the variation in dependent variable (Game performance). This result is inconsistent or argued by (Kousar *et al.*, 2022). The study demonstrated a relationship, between aggression and player performance indicating that positive reinforcement and winning matches positively impact handball players' performance.

Stress is the predictor variable that contributes the lowest to variation of the dependent variable, because beta value is (-.121) is the lowest compared to other predictor variables. This means that Stress make the weakest unique contribution to explain variation in dependent variable when the variance explained by the others predictor variables in the model is control for.

## **CHAPTER FIVE**

### **CONCLUSION AND RECOMMENDATIONS**

#### **5.1. Introduction**

This chapter summarized and discussed the main findings obtained from each of the four research questions. It also deals with the conclusions that were derived from the analysis, as well as recommendations that can be implemented or used for future research, for each of the main research objectives.

#### **5.2. Summary**

The main objective of this study was to investigate the Effect of the psychological variables stress, anxiety and aggression on young female handball project players' performance, in Addis Ababa City.

The study adopted a quantitative approach to investigate the Effect of the psychological variables stress, anxiety and aggression on young female handball project players performance, in Addis Ababa City. The variables for the research study included stress, anxiety and aggression as independent variables while Game performance was the dependent variable.

Research findings were analyzed to enable the researcher to understand what the findings from the data collected meant and this was done with the help of the statistical packages for social sciences (SPSS) version 27. The demographic profiles of the respondents were presented using percentages and frequencies. As for inferential statistics, tools such as correlation, regression, coefficient, and ANOVA were used to analyze and study the nature of effects between independent and dependent variables.

After analyzing the gathered information, the following demographic profiles were presented: based on this, the results of the demographic characteristics of the respondents indicated that the majority of the total respondents' age was 16 years old (75%), educational level of grade 6<sup>th</sup> (43.8%) and training time is three days per a week (98.8%).

The major findings with regard to the correlation result of this study presented that, strong and statistically significant negative relationship was found between the dependent variables (aggression and anxiety) and dependent variable (Game performance) ( $r = -.883, p < .01$  and  $r = -.870, p < .01$  respectively). While, substantial and statistically significant negative relationship was found between stress with Game performance ( $r = -.782, p < .01$ ).

With regard to the regression result, this study manifested that, Anxiety and Aggression were found to be statistically significant to predict game performance of female handball players. While, Stress was statistically insignificant. Anxiety is the predictor variable contributes the highest to the variation of the dependent variable (Game performance) compared to other predictors. The three independent variables caused 81.8% variation in Game performance. However; the remaining part 18.2% variation might be caused by other factors that had not been considered in this study.

### **5.3 Conclusion**

Anxiety and accumulated frustration as well as aggressive behavior may result in low Game performance, which leads in an unwanted form of conduct in sports. This study finding has demonstrated that there is a strong correlation between the two variables (Anxiety with performance and aggression with performance). Thus, it would be important for young females' handball players to be able to manage their anxiety as well as aggression and develop effective coping strategies that allow them to deal with the challenges posed by high-risks situations.

#### **Based on the findings the researcher draws the following conclusions:**

- ✓ Based on the correlation result the researcher concluded that the level of stress, anxiety and aggression increase that are affect performance negatively and associated with the poor game performance.
- ✓ The researcher concluded that the independent variables of stress, anxiety, and aggression had higher positive correlations each other, it indicates that these psychological conditions frequently interact and may even intensify one another.
- ✓ Based on multiple regression analysis the high percentage of game performance predicted by the psychological factor stress, anxiety and aggression. The researcher concludes that there may be other factors impacting game performance that were not included in this study.
- ✓ Based on the independent t test and Two-way ANOVA result it indicates there is no significant difference between training centers or projects on game performance. The researcher concludes that the psychological factors study were more critical determinants of game performance than the training centers (projects) itself.
- ✓ Based on the result of ANOVA of independent and dependent variables indicates the independent variables are statstically significant to explain the variation in dependent



variable (Game performance). And the researcher conclude that the independent variables have a strong significant influence on the dependent variable in the study area.

Moreover, the study through examination of the relationships between stress, anxiety, aggression and game performance offers an understanding of how these factors affect game performance outcomes. The researcher concludes these findings can guide to development of strategies and Support systems to improve the performance of young female handball players.

The implications of this study go beyond Addis Ababa city administration youth female handball players. It can contribute to discussions in sports psychology. They can also serve as a basis for research, on psychological factors affecting female athletes' performance across different sports. By focusing on these elements, coaches, sports psychologists and players can work together to establish a setting that raises the progression, enhancement and peak performance of players.

### **5.3. Recommendations**

The proper performance and psychological measurement are very essential to investigate the effect and relationship of psychological factors and performance of youth female handball players. In competition, handball players can face a great deal of pressure. Which can lead to increased stress and anxiety. Coaches and Sport psychologists assist players in managing psychological factors, such as stress, anxiety, and aggression, through techniques like deep breathing, visualization, and muscle relaxation. They also help young female handball players improve performance by boosting confidence, overcoming self-doubt, and facilitating faster injury recovery. This study shows that the effect of stress, anxiety, and aggression on the game performance of youth female handball trainees. Based on the findings and conclusion the study the following recommendations were forwarded.

- Future research should involve a diverse sample size to understand stress, anxiety, and aggression's impact on the performance of female handball players.
- Longitudinal studies should be conducted to observe factors over time, providing understandings into game performance and coping mechanisms.
- The researcher suggests that researchers should use other performance measures in addition to game performance measurement to address the effect of psychological factors on player performance.

- The researchers should have used qualitative methods in addition to quantitative method to investigate the impact of psychological factors on performance in youth female handball players.
- This study has also recommended future research using experimental design, considering other arousal continuum variables such as motivation, goal setting, and imagery to gain more findings on the effect of player performance.

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## APPENDIXES



### BAHIRDAR UNIVERSITY

#### SPORT ACADEMY

#### DEPARTMENT OF SPORT SCIENCE

#### APPENDIX-A: Demographic profile of respondents

#### Questionnaires filled by Addis Ababa City Youth Female handball project trainees

#### Dear respondents,

The main objective of this questionnaire is to collect information on the relationship of psychological factors among stress, anxiety, aggression and the performance of the players. And designed to Addis Ababa City Youth Female handball project trainees. To attain the objective of the research your genuine response is essential. The information that you give will be used for academic purpose only and your identity will be kept confidential. The researcher would be grateful if you read each question carefully and give your answers responsibly as your response determines the finding of the research. The researcher would like to thank you in advance for your time and dedication to respond carefully.

General Direction

No need of writing your name

#### Part I. Demographic profile of respondents

Direction: Put right sign in the box

1. Sex    Male     Female

2. Age    15-16     17-18

3. Educational status elementary    5-6     7-8     others

#### 4. Experience in the training project

1 year  2 year's  3 year'  4 year's  Above 4 years

### APPENDIX-B: The Perceived Stress Scale (PSS)

The Perceived Stress Scale (PSS) is a classic stress assessment instrument. The tool, while originally developed in 1983, remains a popular choice for helping us understand how different situations affect our feelings and our perceived stress.

For each question choose from the following alternatives and put the right sign in your alternative.

**0 - never 1 - almost never 2 - sometimes 3 - fairly often 4 - very often**

No_	Items	very often	fairly often	sometimes	almost never	never
1	During intense training or competition, how often have you been upset because of unexpected events?"	4	3	2	1	0
2	How often have you felt that you were unable to control important aspects of your sports performance in the trainings?"	4	3	2	1	0
3	How often have you experienced nervousness and stress related to your sports participation in handball	4	3	2	1	0
4	How often have you felt confident about your ability to handle personal challenges related to Handball sports?"	4	3	2	1	0
5	How often have you felt that things were going your way in your sports endeavors in handball?"	4	3	2	1	0
6	How often have you found it challenging to cope with all the demands and responsibilities related to your sports commitments in handball	4	3	2	1	0
7	How often have you been able to control irritations or frustrations related to your performance in handball sports	4	3	2	1	0
8	How often have you felt that you were on top of things in your sports journey in handball?"	4	3	2	1	0

9	How often have you been angered by factors outside of your control during Handball training and match?"	4	3	2	1	0
10	Have you felt that difficulties related to handball have piled up so high that you couldn't overcome them?"	4	3	2	1	0

Individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived stress.

- ✓ Scores ranging from 0-13 would be considered low stress.
- ✓ Scores ranging from 14-26 would be considered moderate stress.
- ✓ Scores ranging from 27-40 would be considered high perceived stress

PSS Score-----

**Thank you for taking the time to complete the questionnaire!!**

### **APPENDIX-C: Sports Competition Anxiety Test (SCAT)**

By analyzing an athlete's responses to a series of statements about how they feel in a competitive situation, it is possible to determine their level of anxiety. A test that provides such functionality is the Sports Competition Anxiety Test (SCAT) (Martens et al. 1990)

#### **How to conduct the test**

Read each statement below, decide if you "Rarely", "Sometimes", or "Often" feel this way when competing in your sport, and tick the appropriate box to indicate your response.

The athlete responds to the 10 questions on the questionnaire below - no time limit

The assistant determines and records the players SCAT score Questionnaire

Put the right sign in the selected item

No_	Items	often	sometimes	rarely
1	Competing against others is socially enjoyable	3	2	1
2	Before I compete, I feel uneasy	3	2	1
3	Before I compete, I worry about not performing well	3	2	1
4	I am a good sportsman when I compete	3	2	1
5	When I compete, I worry about making mistakes	3	2	1
6	Setting a goal is important when competing	3	2	1

7	I like to compete in games that demand a lot of physical energy	3	2	1
8	Before I compete, I feel relaxed	3	2	1
9	Before I compete, I am calm	3	2	1
10	I get nervous wanting to start the game	3	2	1
11	Before I compete, I get a queasy feeling in my stomach	3	2	1
12	Just before competing, I notice my heart beats faster than usual	3	2	1
13	Before I compete, I am nervous	3	2	1
14	Team sports are more exciting than individual sports	3	2	1
15	Before I compete, I usually get uptight	3	2	1

SCAT Score-----

- ✓ Less than 17 You have a low level of anxiety
- ✓ 17 to 24 You have an average level of anxiety
- ✓ More than 24 You have a high level of anxiety

## APPENDIX-D: Aggression Questionnaire (AQ)

Items Constituting the Original and Refined Measurement Models of the Aggression Questionnaires. (Buss & Perry, 1992)

No_	Aggression Questionnaire Items	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	<b>Physical Aggression (Factor)</b>					
1	Once in a while I can't control the urge to hit another person.	5	4	3	2	1
2	Given enough provocation, I may hit another person.	5	4	3	2	1
3	Given enough provocation, I may hit another person.	5	4	3	2	1
4	If I have to resort to violence to protect my rights, I will.	5	4	3	2	1
	<b>Verbal Aggression (Factor)</b>					
5	I have threatened people I know.	5	4	3	2	1
6	My friends say that I'm somewhat argumentative.	5	4	3	2	1
7	My friends say that I'm somewhat argumentative	5	4	3	2	1
	<b>Anger (Factor)</b>					
8	I up quickly but get over it quickly	5	4	3	2	1
9	When frustrated, I let my irritation show	5	4	3	2	1
10	I sometimes feel like a powder keg ready to explode.	5	4	3	2	1
11	I have trouble controlling my temper.	5	4	3	2	1
	<b>Hostility (Factor)</b>					
12	I am sometimes eaten up with jealousy.	5	4	3	2	1
13	At times I feel I have gotten a raw deal out of life.	5	4	3	2	1
14	My teammates always seem to get the breaks.	5	4	3	2	1
15	I sometimes feel that people are laughing at me behind my back.	5	4	3	2	1

Low level of aggression Less than 65

Moderate level of aggression 65-95

High level of Aggression More than 95

Total Aggression Questionaries Score -----

**APPENDIX-E: Performance Indicators Real Time Observation**

For the attack phase, the indicators recorded were: shots (shots saved by other team’s goalkeeper, shots missed, shots hitting the post), assists, 7 metre shots, technical fouls. Indicators for the defense phase were interceptions, blocks, and punishments (warnings, suspensions and expulsion).

For goalkeeper, the indicator was the number of shots saved by the goalkeeper.

Player s code numb er	goal	Shot saved by oppone nt Goal keeper	Shoo t miss ed	Shoot hittin g post	Shoot Blocke d	7 m penalt y shot	Assi st	Techni cal fouls	Ste al	Blocke d shot	Yello w card	Two minuet suspen sion	Saves by Goal keeper
01													
02													
03													
04													
05													
06													
07													
08													
09													
010													
011													
012													
013													
014													
015													
016													
016													
017													
018													
019													
020													

**APPENDIX-F: Amharic Version of General direction for respondent**



**ባህርዳር ዩኒቨርሲቲ  
ስፖርት አካዳሚ  
ድህረ ምረቃ ትምህርት ክፍል**

**ለ አዲስ አበባ ከተማ የታዳጊ ሴት እጅጋስ ፕሮጀክት ተጫዋቾች የተዘጋጀ የጥናታዊ ፅሁፍ መጠይቅ**

ይህ የጥናታዊ ፅሁፍ መጠይቅ በ እናንተ ሙሉ ፈቃደኝነት እና ትብብር የሚሞላ መሆኑን ለማሳሰብ እወዳለሁ ።  
በመሆኑም የዚህ ጥናት ስኬታማነት በእርስዎ ትክክኛ እና ሀቀኛ ምላሽ ላይ የተመሰረተ ነው። ስለዚህ በትክክኛው  
መረጃዎች ላይ በመመስረት ከዚህ በታች ያሉትን መጠይቆች እንዲመልሱ በትህትና ለመጠየቅ እወዳለሁ።  
ስለ መልካም ፈቃዳችሁ እና ትብብራችሁም ከወዲሁ አመሰግናለሁ ።

ብሩክ ሞገስ  
ስልክ: ቁጥር 0913171019  
ኢሜል: bmoges981@gmail.com

የመጠይቁ አላማ የአዲስ አበባ ከተማ የ ሴት የእጅጋስ ፕሮጀክቶች ተጫዋቾች የስነ-ልቦና ሁኔታ ማለትም  
ጭንቀት፣ ስሜታዊነት/ወጥረት/ እና ጠብጫሪነት ላይ ንፅፅራቸውን እና በተጨማሪም ብቃት ላይ ያላቸውን  
ተጽእኖ ማጥናት ሲሆን ትክክለኛውን ምላሽ መስጠትዎ ጥናቱ ግቡን እንዲመታ ያስችለዋል።

የተሰበሰበው መረጃ ለጥናቱ ጉዳይ ብቻ ይወላል ።

ስም መጻፍ አያስፈልግም

ጥያቄዎቹን ሲመልሱ እባክን በግልፅኝነት ይሙሉ፤ ምላሾቹም በሚስጥር ይያዙ ።

ክፍል-1  
እድሜ-----የታ-----  
የክፍል ደረጃ -----  
መተዳደሪያ -----



የልምምድ ቀናት ብዛት (በሳምንት ለስንት ቀን) .....

ለ ስንት አመት ሰራሽ.....

## APPENDIX-G: Amharic versions of perceived stress scale Questionaries (PSS)

ለሚከተሉት የአዕምሮ ወጥረት (Stress) አመለካከት ጥያቄዎች ምላሾችን ይስጡ።

ለዚህም በመጠይቆቹ ጎን ባሉት ምርጫዎች ስር የ” √” ምልክት ይጠቀሙ።

የወጥረት ሁኔታን ለመገንዘብ የሚጠቅም መለኪያ (PSS) እና የታወቀ የወጥረት መገምገሚያ መሳሪያ ነው።

መሳሪያው፣ መጀመሪያ በ1983 የተፈጠረ ቢሆንም፣ የተለያዩ ሁኔታዎች በስሜታችን እና በምናስበው ውጥረታችን

ላይ እንዴት ተጽዕኖ እንደሚሰጥና እንደሚሰጥ የሚረዳን ተወዳጅ ምርጫ ነው።

0 - በጭራሽ    1 - አንዳንድ ጊዜ    2 - ብዙ ጊዜ    3- በጣም ብዙ ጊዜ    4- ሁልጊዜ

ተቁ	ዝርዝር ጥያቄ	ሁልጊዜ	በጣም ብዙ ጊዜ	ብዙ ጊዜ	አንዳንድ ጊዜ	በጭራሽ
1	በከፍተኛ ስልጠና ወይም ውድድር ወቅት፣ ባልተጠበቁ ሁኔታዎች ምክንያት ምን ያህል ጊዜ ትበሳጫሽ?					
2	በስልጠናዎች ውስጥ የአንቺን የስፖርት ክንዋኔ አስፈላጊ ገጽታዎች መቆጣጠር እንዳልቻልሽ ምን ያህል ጊዜ ተሰምቶሻል?					
3	ከእጅክ ውስጥ ከስፖርት ተሳትፎዎ ጋር በተያያዘ ምን ያህል ጊዜ ወጥረት አጋጥሞሻል?					
4	ከእጅክ ስፖርቶች ጋር የተያያዙ ግላዊ ተግዳሮቶችን ስለመወጣት ምን ያህል ጊዜ በራስ መተማመን ይሰማዎታል?					
5	በእጅክ ውስጥ በምታደርገው የስፖርት እንቅስቃሴ ነገሮች በአንቺ መንገድ እየሄዱ እንደሆነ ምን ያህል ጊዜ ይሰማሻል?					
6	በእጅክ ውስጥ ከስፖርት ቃል ኪዳኖች ጋር የተያያዙ ሁሉንም ፍላጎቶች እና ኃላፊነቶች ለመቋቋም ምን ያህል ጊዜ ፈታኝ ሆኖ አግኝተውታል?"					
7	በእጅክ ስፖርቶች ውስጥ ካለሽ ብቃት ጋር በተገናኘን ንዴትሽን ወይም ብስጭትሽን ምን ያህል ጊዜ መቆጣጠር ችለሻል?					
8	በእጅክ ስፖርት ጉዞሽ ውስጥ በነገሮች ላይ እንደነበርሽ ምን ያህል ጊዜ ተሰምቶሻል?					
9	በእጅክ ስልጠና እና ግጥሚያ ወቅት ከቁጥጥርሽ ውጪ በሆኑ ምክንያቶች ምን ያህል ጊዜ ተቆጥተሻል?					
10	ከእጅክ ጋር የተያያዙ ችግሮች በጣም የተከመሩ እና አነሱን ማሸነፍ ያልቻላችሁ እንደሆነ ተሰምቶሻል ያወቃል?					

የወጥረት ሁኔታን ለመገንዘብ የሚጠቅም መለኪያ (PSS) በ PSS ላይ የግለሰብ ውጤት ከ 0 ወደ 40 ከፍ ያለ ወጥረትን የሚያመለክቱ ከፍተኛ ውጤቶች ከ 0 እስከ 40 ሊደርስ ይችላል ::

- ✓ ከ 0 - 15 ጀምሮ ከ 0 - 15 ጀምሮ እንደ ዝቅተኛ ውጥረት ያሳያል ::
- ✓ ከ 14 እስከ 26 የሚዘገው ነጥቦች መካከለኛ ውጥረት ያሳያል ::
- ✓ ከ 27-40 የተደነገጉ ነጥቦችን ከፍተኛ ውጥረትን ያሳያል ::

PSS ውጤት -----

**መጠይቁን ለማጠናቀቅ እና ለ መሙላት ጊዜ ስለወሰዱ አመሰግናለሁ !!**

**APPENDIX-H: Amharic Versions of Sport Competition Anxiety Test Questionnaires (SCAT)**

**ባህርዳር ዩኒቨርሲቲ**

**ስፖርት አካዳሚ**

**ድህረ ምረቃ ትምህርት ክፍል**

በመጠይቆቹ ጎን ባሉት ምርጫዎች ስር የ" ✓" ምልክት ይጠቀሙ ::

በተወዳዳሪ ሁኔታ ውስጥ ምን እንደሚሰማቸው ለተከታታይ መግለጫዎች የተጭዋቾችን ምላሾች

በመተንተን የጭንቀት ደረጃቸውን መወሰን ይቻላል ::

እንዲህ ዓይነቱን መጠይቅ የተዘጋጀው የስፖርት ውድድር ጭንቀትን መጠንን ለመረዳት ነው ::

አብዛኛውን ጊዜ -3                      አንዳንድ ጊዜ - 2                      በጥቂት ጊዜ - 1

ተቁ	ዝርዝር ጥያቄ	አብዛኛውን ጊዜ	አንዳንድ ጊዜ	በጥቂት ጊዜ
1	ከሌሎች ጋር መወዳደር ማህበራዊ እና አስደሳች ሁኔታ ነው ::			
2	ወደ ወድድር ከ መግባቱ በፊት ጭንቀት ይሰማኛል ?			
3	ከመወዳደሪያ በፊት ጥሩ ውጤት ስለማስመዘገብ እጨነቃለሁ::			
4	በወድድር ጊዜ ያለኝን ብቃት በማወጣት ጥሩ ስልጣኝ መሆኔን አሳያለሁ::			
5	ስወዳደር ስህተት ስለመሥራት እጨነቃለሁ::			
6	በ ወድድር ጊዜ ግብን መንደፍ ጠቃሚ ነው::			
7	ብዙ የአካል ኃይልን በሚጠይቁ ጨዋታዎች ውስጥ መወዳደር እፈልጋለሁ ::			
8	ከመወዳደሪያ በፊት ዘና የማለት ወይም የእጩይታ ስሜት ይሰማኛል ::			

9	ወደ ዉድድር ከመግባቴ በፊት የ ተረጋጋ ሁኔታ ላይ እሆናለሁ ::			
10	የጨዋታውን መጀመር ሳስብ በከፍተኛ ሁኔታ እፈራለሁ ::			
11	ከመወዳደሪያ በፊት በሆዴ ውስጥ የመረበሽ ስሜት ይሰማኛል::			
12	ከመወዳደር በፊት፣ ልቤ ከወትሮው በበለጠ ፍጥነት እንደሚመታ አስተውያለሁ::			
13	ከመወዳደር በፊት እጩነታለሁ::			
14	የቡድን ስፖርቶች ከግል ስፖርቶች የበለጠ አስደሳች ናቸው::			
15	የቡድን ስፖርቶች ከግል ስፖርቶች የበለጠ አስደሳች ናቸው::			

S.C.A.T መለኪያ ውጤት -----

- ✓ ከ 17 በታች የሆነ ዝቅተኛ የጭንቀት ደረጃ አለዎት ::
- ✓ ከ 17 እስከ 24 ድረስ አማካይ የጭንቀት ደረጃ አለዎት ::
- ✓ ከ 24 በላይ ከፍ ያለ የጭንቀት ደረጃ አለዎት ::

**መጠይቁን ለማጠናቀቅ እና ለ መሙላት ጊዜ ስለወሰዱ አመሰግናለሁ !!**

## APPENDIX – I: Amharic Versions of Aggression Questionaries (AQ)

### ባህርዳር ዩኒቨርሲቲ

### ስፖርት አካዳሚ

### ድህረ ምረቃ ትምህርት ክፍል

#### ክፍል-5

ለሚከተሉት የጠብ ጫሪነት /ጥቃት/ ጥያቄዎች ምላሾችን ይስጡ ለዚሁም መጠይቆቹ ጎን ባሉት ምርጫዎች ስር ለርስዎ ምርጫ የ” √” ምልክት ይጠቀሙ ::

በጣም እስማማለሁ - 5 እስማማለሁ - 4 ገለልተኛ - 3 አልስ ማማም - 2 በጭራሽ አልስማማም - 1

ተቁ	ዝርዝር መሰፈርት የአካል ጠብጫሪነት(Physical Aggression)	በጣም እስማማለሁ	እስማማለሁ	አልወስንኩም	አልስ ማማም	በጭራሽ አልስማማም
1	አንድ ጊዜ ራሴን መቆጣጠር ካቃተኝ ሌሎች ሰዎችን ከመማታት አልመለስም::					
2	በጫወታ ግዜ ሌላ ሰው የጠብ ጫሪነት ስሜት ካንፀባረቀብኝ እጣላለሁ::					

3	በቂ ቁጣ ከተሰጠኝ ሌላ ሰው እመታለሁ።				
4	ሙብቴን ለማስጠበቅ ብጥብጥ ማድረግ ካለብኝ አደርገዋለሁ። ፒ.ኤ				
	<b>የቃል ጠብጫሪነት (Verbal Aggression)</b>				
5	አንዳንድ ተጫዋቾች ሌሎች እንድማታይገፋፉኛል።				
6	የማወቃቸውን ሰዎች አስፈራራቸዋለሁ።				
7	የቡድን ጓደኞቼ እኔን ተጨቃጫቂ ነገር ይላሉ።				
8	የቡድን ጓደኞቼ በተወሰነ ደረጃ ተከራካሪ እንደሆነኩ ይናገራሉ።				
	<b>ጠብጫሪነት (Anger)</b>				
9	ቶሎ ብበሳጭም ወዲያወ እረሰዋለሁ/አተዋለሁ።				
10	ተስፋ መቁረጤ እና ንዴቴ ፊቴ ላይ ይታወቃል።				
11	አንዳንድ ጊዜ ድንገት የቁጠኝነት ስሜት ይታይብኛል።				
	<b>ጠላትነት (Hostility)</b>				
12	በሰዎች ሁኔታ እቀናለሁ። ይህም በጥሩ ብቃት እንዳልጫዎት ያደርገኛል።				
13	ጓደኞቼ ሁልጊዜ እኔ ሌላውን የማጠቃ ነገር የምመስላቸዋል።				
14	በወድድር እና በልምምድ ጊዜ ሰዎች ከጀርባዬ እየሳቁብኝ እንደሆነ ይሰማኛል።				
15	በወድድር እና በልምምድ ጊዜ ቁጣዬን ለመቆጣጠር እችላለሁ።				

- ✓ ዝቅተኛ የጥቃት ደረጃ ከ 65 በታች የሆነ
- ✓ መካከለኛ የመጠነኛ ደረጃ 65 እስከ 95 ድረስ
- ✓ ከ 95 የሚበልጡ ከፍተኛ የጥቃት ደረጃ

የጠብ ጫሪነት ውጤት -----

**መጠይቁን ለማጠናቀቅ እና ለ መሙላት ጊዜ ስለወሰዱ አመሰግናለሁ !!**

**APPENDIX – J: Amharic Versions of Performance Indicators Real Time Observation Check List Table**

**ባህርዳር ዩኒቨርሲቲ  
ስፖርት አካዳሚ  
ድህረ ምረቃ ትምህርት ክፍል**

**በውድድር ጊዜ የጨዋታ አፈጻጸም ጠቋሚዎችን ለመመዘገብ የተዘጋጀ የምልከታ ሰንጠረዥ**

**ይህ ሰንጠረዥ የሁለቱም ተጋጣሚ ቡድኖች የጨዋታ ቁጥራዊ መረጃ ለመመዘገብ የተዘጋጀ ነው ።**

የእጅ ኳስ ተጫዋቾችን አፈጻጸም ቁጥራዊ በሆነ መንገድ ለመመዘገብ የተዘጋጀ እና ቅጹ በውድድር ጊዜ በረዳቶች (Assistants) የሚሞላ ይሆናል ። እያንዳንዱ ተግባር በውድድር ጊዜ ተጨዋቾች ያስመዘገቡት የጨዋታ አፈጻጸም (ብቃት) ሁኔታን አመልካች ነው ።

**የ ጨዋታ ብቃት አፈጻጸም አመልካቾች የእውነተኛ ጨዋታ ጊዜ ምልከታ**

**ለአጥቂ ደረጃ፣ የተመዘገቡት አመልካቾች፡- ሙከራ (በተጋጣሚ ቡድን ግብ ጠባቂ የዳኑት ሙከራዎች፣ የተሳቱ ሙከራዎች የግብ ቋሚ እና አግዳሚ የመለሳቸው ሙከራዎች)፣ ለግብ የአመቻችቶ ማቀበል፣ 7 ሜትር የ ቅጣት ወርዎራ ኳሶች፣ ቴክኒካል ጥፋቶች። የመከላከል ደረጃ አመልካቾች የተጋጣሚ የኳስ ቅብብል ማቋረጥ፣ የተጋጣሚ የ ግብ ሙከራ ማቋረጠ፣ የተመለከቱት የማስጠንቀቂያ ቢጫ ካርድ ብዛት፣ የ ሁለት ደቂቃ እግድ/ቅጣት ብዛት (ማስጠንቀቂያዎች፣ እግዳዎች እና መባረር) ለግብ ጠባቂው ደረጃ ጠቋሚው ግብ ጠባቂው ያዳነባቸባቸው ኳሶች ብዛት ነው።**

የተጫዋቾች ኮድ ቁጥር (1-80)	የያስቆጠረች ወግ ብዛት	በተጋጣሚ ግብ ጠባቂ የተቋረጠበት ሙከራ	የተሳተ ሙከራ	የተጋጣሚ ግብ ቋሚ እና አግዳሚ የመለሳቸው ሙከራዎች	በተጋጣሚ ሚ.ተጫዋቾች የታገዱ ሙከራዎች	የ7 ሜ የቅጣት ወርዎራ	ኳስን ለግብ በማመቻቸት የተደረገ እገዛ	ቴክኒካዊ ጥፋቶች	የተጋጣሚ የኳስ ቅብብል ልማቅረጥ	የተጋጣሚ የ ግብ ሙከራ ማቋረጠ	የተመለከቱት የማስጠንቀቂያ ቢጫ ካርድ ብዛት	የ ሁለት ደቂቃ እግድ/ቅጣት ብዛት	በግብ ጠባቂ የታገዱ የ ግብ ሙከራዎች
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