#### **Research Article**

# Athletes' Mental Toughness and Sports Competition Anxiety: Basis for an Enhanced Mental Toughness Program

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**Abstract:** One of the most discussed relationships in sports psychology is the relationship between competitive anxiety and sports performance. Competitive Anxiety was found to be influenced by individual factors. An important psychological concept found to be related to competitive anxiety is mental toughness, which facilitates a psychological edge to a sports player. It helps an individual perform better than his/her opponents and strive to succeed under pressure. This research aimed to correlate mental toughness levels and sports competition anxiety levels of selected athletes. This research is a quantitative correlational study. The researcher involved one hundred nineteen (119) selected athletes from the University of Santo Tomas. The respondents were part of Team A or those who played in the UAAP 81<sup>st</sup> season. The instruments used were all standardized, for mental toughness the researcher used the Mental Toughness Questionnaire-48 (MTQ48; Clough *et al.*, 2002); and for sports competition anxiety, the Sports Competition Anxiety Test (Martens, 1997) was utilized. The research revealed that mental toughness indicators like control, commitment, challenge, and confidence have a significant relationship with the sports anxiety levels of the respondents. But the relationship was described as average level. A proposed enhanced mental toughness program was developed based on the results of the study.

Keywords: Mental toughness, sports competition anxiety, control, commitment, challenge, and confidence.

#### Introduction

"Sports is Universal". Across the globe, people from various races and cultural backgrounds recognize, accept, and participate in sports. Some cultures even have their distinct types of sports, such as sumo wrestling in Japan, taekwondo in Korea, and "sipa" in the Philippines. For some nations, their sports have become the means of making their way into other nations' cultures and even the mark of their culture in the world itself. Sports have become a means of promoting the spirit of competitiveness and sportsmanship as well as a way of waving the gesture of peace, unity, friendship, and commonality to people around the world.

Over the years, the changes and growth in children's sports have been reflected due to the popularity of professional sports in society. Schools and other sports event organizations have shifted athleticism from fun playtime to intense competition.

Student-athletes actively participate in both academics and sports simultaneously. For this reason, they have a higher possibility of demonstrating a high level of anxiety due to a variety of athletic and academic demands. Aside from a full class load, student-athletes are also attending training and representing respective schools in various sports competitions. These student-athletes aim and dream higher to fulfill this laudable and heroic act. It is a realization of patriotic contribution to their

beloved country. In the actual tournament, numerous factors affect the overall performance of an athlete which include crowd, training, preparation before the competition, self-esteem, and individual and/or team goals. When these factors prevail and the best performance fails on the day of competition, this emotional tension is commonly called pre-competitive anxiety.

Anxiety in sports is such a huge issue for many athletes. The logic is that the better one becomes, the higher the level of competition, and the more anxiety one experiences. Anxiety can have a devastating effect on the performance of an athlete (Athan and Sampson, 2013).

Anxiety before or during athletic competition can hinder the performance of an athlete. The coordinated movement required the athletic events to become increasingly difficult when the body is intense. If there is a substantial difference between how the athlete performs during practice and how one does during competitions, anxiety may be affecting the performance (Gabunilas, 2012).

Sports anxiety and sports mental toughness are important aspects of sports performance. Aside from preparing physically, it is also advisable to have great preparation in mind and thoughts, as these can make the athlete's performance reach the goal of victory.

Coaches and sports personnel recognize this link between sport anxiety and mental toughness related to athletes' sports competition performance and outcome. According to Quinn (2010), many athletes perform well during training or practice but suffer from performance anxiety on a game day. If the feelings of nervousness, anxiety or fear interfere with sports performance, the athletes will not function well and will not enjoy participating in sports until they stop playing because of frustration. The researcher is aware of the importance of mental and psychological preparation of the selected respondent athletes, coaches, and trainers who focus on physical conditioning and skills but not so much on the mental and psychological needs of the athletes. It is for this reason that the researcher is eager to find out the level of mental toughness and sports competition anxiety of the selected respondent athletes. This research also aims to create a mental toughness training program that will enhance not only the athletes' performance in their respective games but also will develop their character and well-being which are perceived as primordial.

#### **Theoretical Framework**

This study is anchored to the '4Cs' Model of Mental Toughness by the team of Hull. The first component is "control" which is the ability to maintain emotional control regardless of destruction as well as commitment meaning the ability to continue working toward agreed goals. Another is "challenge," which means the ability to maintain focus and respond to injuries. The last is "confidence" which means to believe in one's abilities. Research on mental toughness in sports and exercise has focused largely on individual differences, in which mental toughness is viewed as a relatively stable characteristic ("Sports and Exercise Psychology," 2011).



Figure 1. The "4Cs" Model of Mental Toughness

Hull team, a team of researchers at Hull University, proposed that confidence as well as control, commitment, and challenge, are key elements of mental toughness. This has given rise to the "4Cs" model of mental toughness. Control, commitment, challenge, and confidence (the 4C's) are generally considered the main mental qualities that are important for successful performance in most sports. Control is the ability to maintain emotional control regardless of distraction, commitment is the ability to continue working toward agreed goals, and the challenge is the ability to maintain focus and confidence to believe in one's abilities.

Furthermore, this study is anchored on Jones's control model of competition anxiety. According to Jones (1995), "The perception of person's ability to control the environment determines self-response. If a person believes one can cope in a particular sporting situation, one will tend to drive the goals with a positive expectation of success. The feeling that a person can control a particular stressor such as a menacing rival or niggling injury will mean symptoms of anxiety–butterflies in the stomach, elevated heart rate, sweat secretion, and so on–are interpreted as facilitative or helpful toward performance. If person judges that he does not have control over the situation that the opponent is too strong or that a sore calf muscle will hold him back then these symptoms will be interpreted as debilitative, or likely impair sports performance. The probable consequence is that this interpretation will become a self-fulfilling prophecy and the performance level will plummet ("Inside sports psychology," 2011).

#### **Conceptual Framework**

This study utilizes the IPO System approach where mental toughness levels such as control, commitment, challenge, and confidence are treated as input. While the process employed by the researcher is an assessment through a survey. The survey questionnaires contain indicators about mental toughness and sports competition anxiety. Finally, the output of this research is a proposed enhanced mental toughness training program.



#### Statement of the Problem

This study assessed the levels of mental toughness and sports competition anxiety of selected athletes of the University of Santo Tomas.

Specifically, this sought to answer the following questions:

1) What are the mental toughness levels of individual and team sports event athlete respondents in terms of:

1.1 Control;

1.2 Commitment;

1.3 Challenge; and

1.4 Confidence?

2) What are the sports competition anxiety levels of the respondents?

3) Is there a significant relationship between the mental toughness levels and the sports competition anxiety levels of the respondents in terms of control, commitment, challenge; and confidence?

4) Based on the findings, what mental toughness program can be proposed?

# Hypothesis

There is no significant relationship between the mental toughness levels and the sports competition anxiety levels of the respondents in terms of control, commitment, challenge; and confidence.

# Scope and Limitations of the Study

This study focused on assessing the mental toughness levels and competition anxiety levels of the athletes and these two variables were correlated. The study was inclusive of the team A players of the University of Santo Tomas who were included in the official line-up for the University Athletics Association of the Philippines (UAAP) Season 81 in the second semester. The respondents of this were composed of one hundred nineteen (119) athletes. Dancing and cheering teams, team B players, and intramural players were not included in the study. The researcher limited the study to the athletes who were enrolled during the academic year 2018-2019.

The data were gathered through the use of standardized questionnaires. These questionnaires contain indicators of anxiety levels and mental toughness to deal with stressful situations in a sports competition.

## Significance of the Study

The researcher envisions that the results, evaluation, recommendations, and other insights of the study will give significant contributions to the following:

**Athletes:** Through the findings of this study, the athletes will further improve their awareness of the occurrence of anxiety in their daily workload or even in tasks assigned to them. Therefore, they will know when to secure assistance from the authorities or responsible adults (coach, teacher, guidance counsellor, family, and friends) who lead to maximizing their full potential.

**Coaches:** The coaches will find it easy to give appropriate winning approaches and strategies like positive self-talk and positive affirmation which are suitable to the level of psychological skills of each athlete.

**Trainers:** The study will also be beneficial to trainers when they employ mental training to minimize the effect of anxiety and to increase self-confidence for optimum performance of the athletes.

Academic Institutions: This research will provide helpful data for them to know how to assist and prepare athletes.

**Parents**: The result of the study will reinforce parents to active involvement and support their children. This provides their children an improved ability to cope and adjust to the various demands of being productive student-athletes in the University.

**Sports Directors:** This research will be of help for them because they will become aware of the importance of mental and psychological preparations for the athletes before the game.

**Future Researchers:** Through this study, future researchers could apply the same research instrument (Mental Toughness Index-MTI) to assess other athletes and even other sports enthusiasts to display and benefit from the power of psychological skills during sports practice, competition, and even life adversities.

# **Review of Literature and Studies**

Psychological characteristics are now commonly accepted as being major contributors to success within the area of sporting performance-in particular, motivational factors, self-confidence levels,

and the ability to cope with and interpret anxiety-related symptoms as facilitative under pressure (Hanton *et al.*, 2008). Indeed, athletes themselves, coaches, members of the press, and sports commentators have cited mental toughness as core to the execution of successful performance, while certain psychologists working in the field of sports suggest mental toughness as key to the advancement of knowledge regarding successful athletes (Gould *et al.*, 2002). Since the 1950s, mental toughness has been associated with winning performances and linked to the characteristics of sporting champions.

Gomez and Sampan (2015) have investigated the sources of sports confidence among Filipino student-athletes with disabilities enrolled in different schools under an inclusionary setting. It has also sought to find if such sources of confidence vary with the type of disability the athletes have and the type of sports they play. The study is conducted among sixty-three (63) athletes with visual, hearing, or orthopedic impairment. The participants came from different public schools in Quezon City and the Philippine Sports Association for the Differently Abled-National Paralympic Committee of the Philippines (PHILSPADA-NPC Philippines). To gather data, they are given the Athlete Selfrating Scale. Interviews are also conducted among them. Non-parametric statistics are used to synthesize and analyze the data gathered. Results show that the top sources of sports confidence for student-athletes with disabilities are environmental comfort, coach's leadership, and social support. Further, sources of sports confidence differ with the disability the athletes have. Also, there is a difference in the sources of sports confidence based on the type of sports the athletes play. The mentally tough individual tends to be sociable and outgoing as they can remain calm and relaxed, they are competitive in any situation, and have lower anxiety levels than others. With a high sense of self-belief and unshakeable faith, that they control their destiny, these individuals can remain calm and relatively unaffected by competition or adversity ("Solution in Sports Psychology," 2002).

According to the study conducted by Lopez *et al.*, (2015), coaches need to address athletes' low level of mental toughness since it is now being recognized that physical talent is not the only component that leads to athletic success (Gucciardi *et al.*, 2008) but also attributed to an athletes' psychological skills (Williams and Krane, 2001). Hence, the inclusion of the Psychological Skills Training (PST) program as an essential part of athletes' regular training is recommended.

Mental toughness is defined as a natural or developed psychological edge while this indicates the potential importance of both nature and nurture, the researched literature on mental toughness presented two perspectives to this argument. The suggestion that mental toughness can acquire has led to an increase in research investigating how this construct developed athletes. Connaughton *et al.*, (2010) proposed that several factors may influence the development of mental toughness. These factors include skill, mastery, competitiveness, success, international competitive experience, education and advice, the use of psychological skills, access to understanding social support networks, and reflective practice. Consequently, an athlete can develop their mental toughness by gaining competitive experience, mastering complex skills, and achieving in their sports. This study also supports the proposition that experiencing critical incidents, positive and negative, can act as a catalyst to mental toughness. Positive critical incidents such as talent recognition are found to enhance self-belief and motivation.

Competitive sports are a tapestry of ambition and emotion. Some athletes are driven to excel continuously on a rising tide of seemingly insurmountable standards; yet those impulses to better themselves and their achievements have driven athletes like Lee Westwood to extraordinary triumph with positive emotion at its score. When journalists invited champion athletes to reveal the ingredients of their success, at least one common denominator emerged: the role of emotion control. Because athletes weave this common thread of emotional control through their tales of triumph, it cements sports psychologists' assertion that victory or defeat teeters on controlling emotions when it matters most (Jones, 2003; Uphill *et al.*, 2009). Competitive anxiety plays a crucial role in sports. Weinberg and Gould (2011) define it as a state of negative response which is featured by feelings of

fear, tension, and uneasiness. Sports and anxiety are closely related to each other and go hand in hand. Even the best performing and most successful athletes experience feelings of anxiety. No participants in the field of games and sports do not experience anxiety. There is a great expectation placed upon all participants in the competition to win with demands for them to succeed. Numerous studies have shown that winning relies heavily upon how an athlete can control their level of competitive sports anxiety.

There are three levels of anxiety which are cognitive or mental by particular thought process with characteristics such as indecision, sense of confusion, fear, irritability, thoughts of avoidance, loss of confidence, poor concentration, defeatist self-talk, unable to take instructions, or feeling weak; somatic or physical which is characterized by a physical response like sweating, increased blood pressure, clammy hands and feet, trembling, pounding heart, increased respiration rate, butterflies in the stomach, loss of appetite, sleepless, and loss of libido; and behavioural level is described by patterns of behaviour that includes biting fingernails, uncomfortable movements, unable to maintain eye focus, hiding the face with the hand, lethargic movements, or inhibit posture.

Anxiety includes state (A-state) and trait (A-trait) dimensions "A-trait" anxiety is a stable and consistent feature of an individual's personality. It is based primarily on experience and like personality traits, is firmly established in adulthood. A person is more likely to view events and situations as threatening. "State" anxiety is also referred to as "A-state" in sports is referred to as precompetitive anxiety. This specifically refers to one's mood. This emotional state occurs or is provoked by a specific situation. It is often immediate and is characterized by fear and tension. State anxiety is temporary or momentary level of anxiety experienced by an individual. However, it can last for different lengths of time depending on the person and the situation. Both of these types of anxiety can be identified using the Sports Competition Anxiety Test (Martens, 1990). A study on pre-competitive anxiety levels and during competition shows that athletes with high levels of competitive anxiety experience the least or worst performance in sports while those with lower levels of competitive anxiety delivered the most satisfactory performance (Parnabas, 2015). In short, winning or losing is determined by the athlete's level of anxiety in sports. According to the results of a study on the relationship of anxiety with performance in three different stages between a team and individual players, athletes who participate in both individual and team sports are found to have a remarkably greater anxiety level during the game than before and after the game situation (Singh et al., 2014).

Connaughton *et al.*, (2010) proposed that several factors may influence the development of mental toughness. These factors include skill, mastery, competitiveness, success, international competitive experience, education and advice, the use of psychological skills, access to understanding social support networks, and reflective practice. Further, Gould *et al.*, (2002) suggested that mental toughness is key to the advancement of knowledge regarding successful athletes. While Lopez *et al.*, (2015) recommended that coaches need to address athletes' low level of mental toughness since it is now being recognized that physical talent is the not only component that leads to athletic success. On the other hand, Gucciardi *et al.*, (2008) also attributed an athlete's psychological skills.

#### Methodology

#### **Method of Research**

The descriptive method of research was used in this study. According to Dudovsky (2017), the descriptive method of research is conducted to describe the characteristics and/or behavior of the sample population; such a method is hereby deemed as best fitting to be employed in the study.

The descriptive method is utilized to appraise carefully the worthiness of the present study (Calmorin, 2016). In terms of research design, the researcher utilized a correlation study because the variables such as anxiety level and mental toughness were correlated with one another in this research. The research tool used was the MTQ48 (Clough *et al.*, 2002). This tool measures the levels of mental toughness of the respondent athletes. Another adapted instrument, Sports Competition

Anxiety Test (SCAT) created by Rainer Martens was used to gather the data needed. This test is a trait evaluation used specifically to identify the levels of anxiety or characteristics of personality in competitive sports situations.

#### Population, Sample Size, and Sampling Technique

The respondents of the study were athletes who were enrolled during the academic year 2018 to 2019 at the University of Santo Tomas. The respondents were composed of one hundred nineteen (119) athletes from the University of Santo Tomas (UST). The purposive sampling technique was employed to obtain the sample size in gathering the data.

#### **Description of Respondents**

Respondents of this study are athletes of the University of Santo Tomas enrolled in the academic year 2018 to 2019 and represented in the UAAP 81<sup>st</sup> season. The respondent group was composed of forty-eight (48) males and seventy (71) females for a total of one hundred nineteen (119). They were participants in the following sports namely Badminton, Baseball, Football, Softball, Swimming, Taekwondo, Table Tennis, and Volleyball which were classified as Individual or Dual sports and Team Sports.

Age	Frequency	Percent (%)
17 years and below	5	4.2
18 to 20 years old	94	79.0
21 to 23 years old	18	15.1
24 years old and above	2	1.7
Total	119	100.0

Table 1. Frequency and Percent Distribution of the Respondents according to Age

Table 1 shows the frequency and percent distribution of the respondents according to age. Out of one hundred nineteen (119) respondents, ninety-four (94) or 79% belong to the age group of 18 to 20 years old, followed by 21 to 23 years old with eighteen (18) or 15.1%, five (5) or 4.2% are 17 years old and below, and lastly 24 years old and above, two (2) or 1.7%. Most athletes who participated in this study are either in their sophomore or junior years of college which explains the larger percentage of the students in the 18-to-20 age bracket. In this case, coaches allow premature athletes to spend a few months or years in the training pool to adjust to the playing level.

Table	e 2. Freq	uency and	Percent I	Distribution	of the R	Respondents	according	to Gen	ıder
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Sex	Frequency	Percent (%)
Male	48	40.3
Female	71	59.7
Total	119	100.0

Table 2 shows the frequency and percent distribution of the respondents in terms of gender. Out of one hundred nineteen (119) respondents, seventy-one (71) or 59.7% are males and forty-eight (48) or 40.3% are females. The participants of the study are dominated by females. In this instance, there is a possibility that the event is usually dictated by the number of participating in gender games. A higher number of slots in women's division than in men's is taken as a reason for the higher frequency of male respondents.

#### Table 3. Frequency and Percent Distribution of the Respondents according to Sports Category

Sports Category	Frequency	Percent (%)
Individual	65	54.6
Team	54	45.4
Total	119	100.0

Table 3 shows the frequency and percent distribution of the respondents according to the type of sports. Different sporting events are categorized as individual or dual and team. Out of one hundred nineteen (119) respondents, there are sixty-five (65) or 54.6% from individual and dual sports, while fifty-four (54) or 45.4% belong to team sports.

As stated, individual and dual sports have higher respondents than team sports. The number of teams and athletes from individual and dual sports greatly influences the frequency of the respondents. There are eleven (11) teams under individual and dual sports such as athletics, badminton, beach volleyball, chess, fencing, judo, lawn tennis, swimming, table tennis, and taekwondo. While in Team Sports, there are five (5) teams which are basketball, baseball, football, softball, and volleyball.

Playing Years	Frequency	Percentage (%)
1 year	35	29.4
2 years	20	16.8
3 years	14	11.8
4 years	20	16.8
5 years	30	25.2
Total	119	100.0

Table 4. Frequency and Percent Distribution of the Respondents according to Playing Years

Table 4 shows the frequency and percent distribution of the respondents according to playing years. Out of one hundred nineteen (119) respondents, thirty-five (35) or 29.4% play for one (1) year, thirty (30) or 25.2 % play for five (5) years, and fourteen (14) or 11.8 play for three (3) years.

#### **Research Instrument**

The researcher used standardized questionnaires, the Sports Competition Anxiety Test (Martens, 1977), and the Mental Toughness Questionnaire with forty-eight (48) indicators (Clough *et al.*, 2002), to determine the sports competition anxiety levels.

The Mental Toughness Questionnaire-48 (MTQ48; Clough *et al.*, 2002) was utilized to determine and measure the mental toughness in sports of the respondents. The MTQ48 (Clough *et al.*, 2002) consists of forty-eight (48) items which were categorized into four dimensions, challenge, commitment, control, and confidence. Control and confidence were divided into two further subscales, control of life and emotional control and interpersonal confidence and confidence in one's abilities. Items had to be rated using a 5-point Likert-scale, ranging from "strongly disagree" (1) to "strongly agree" (5).

The total MT score is calculated, such as a separate score for every dimension and dimension's subscales. High values signify a high anxiety threshold, strong self-belief, confidence in one's abilities, resilience against stress, and high competitiveness. The MTQ48 measures challenge (8 items), commitment (11 items), control (11 items), and confidence (15 items). Table 5 exhibits the ratings of numerical weights assigned to the corresponding value of assessment.

Table 5. Verbal Interpretations of the Computed V	Weighted Mean Response on each Dimension
of Mental Toughness	of UST athletes

Verbal Interpretation	Likert Scale	Arbitrary Scale	Verbal		
			Interpretation		
Strongly Agree (SA)	5	4.50 - 5 - 00	Very High Level		
Agree (A)	4	3.50 - 4.49	High Level		
Fairly Agree (FA)	3	2.50 - 3.49	Average Level		
Disagree (D)	2	1.50 - 2.49	Low Level		
Strongly Disagree (SD)	1	1.00 - 1.49	Very Low Level		

On the other hand, Sports Competition Anxiety Test (Martens, 1977), which is commonly known as just the SCAT test, is a self-reporting questionnaire about anxiety. The SCAT determines the athlete's responses to a series of statements about how they feel in a competitive situation. The questionnaire is consist of fifteen items and the athlete decides on the statements by choosing among three answer choices "Rarely", "Sometimes" or "Often". Items 1, 4, 7, 10, and 13 score 0 regardless of the response. Items 2, 3, 5, 8, 9, 12, and 15 are scored in the following manner: hardly ever=1 pt, sometimes=2 pts, often=3 pts. For items 6 and 11, the scoring is reversed: hardly ever=3 pts, sometimes=2 pts, often=1 pt. Simply, the total number of these items determines the trait anxiety score, which ranges from a low of 10 to a high of 30. Total scores are calculated to identify the athletes' level of anxiety. A low level reflected a score of less than 17, an average level of anxiety was a score ranging from 17 to 24, and a high level of anxiety was represented with a score of more than 24.

## **Data-Gathering Procedure**

A letter of request was submitted to the Director/Regent, Institute of Physical Education and Athletics, University of Santo Tomas to seek approval for the conduct of a survey among the athlete respondents. Upon approval of the request, the survey questionnaires were individually distributed to the respondents in person with the supervision of the researcher. After retrieving the completed survey questionnaires, the data were prepared for tallying, presentation, analysis, and presentation. All differences were considered statistically significant for a probability level less than 0.05 (p < 0.005).

## **Statistical Treatment of Data**

The obtained data were determined using the following statistical-treatment methodologies:

1) **Frequency Distributions:** It is a statistical tool used to present data that displays outcomes clearly and accurately in tabulated form with corresponding rows and columns.

2) **Percentage Distributions:** This statistical tool is used to determine the population of the respondents distributed by profile variables.

The formula for this is:  $P = F/N \ge 100$ Where, P = percent F = frequency N = total number of respondents100 = constant multiple

3) Mean: The mean is calculated using the following formula:

 $\bar{x} = \Sigma f x / N$ Where,  $\bar{x} =$  mean x = midpoint of class ranks f = frequency

N = number of respondents

4) Weighted mean. The weighted mean is used to describe the assessment of the athletes on their mental toughness level and sports competition anxiety level.

 $XW = \Sigma f X/N$ Where, XW = weighted mean $\Sigma = sum of all quantities$ f = frequencyw = weighted

#### N = number of respondents

5) **Pearson r.** This statistical tool is used to determine the significant relationship between the two variables, mental toughness, and sports competition anxiety level.

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{\left[n(\sum x^2) - (\sum x)^2\right]\left[n(\sum y^2) - (\sum y)^2\right]}}$$

Where,

r = the Pearson Product Moment Coefficient of Correlation n = sample size  $\Sigma xy =$  the sum of the product of x and y  $\Sigma x \Sigma y =$  the product of the sum of  $\Sigma x$  and the sum of  $\Sigma y$  $\Sigma x^2 =$  sum of squares of x  $\Sigma y^2 =$  sum of squares of y

## **Results and Discussion**

The presentation, analysis, and interpretation of findings are discussed in this chapter. The presentation follows the sequence of the research questions to answer the general objective of the study which is to determine the level of mental toughness, and sports competition anxiety level of the UST athletes.

# Mental toughness Levels of the Respondents Control

Tuble 0. Assessment of the Respondents in Mentur	i ouginess m	
Control	Weighted	Verbal
	Mean	Interpretation
I generally feel in control.	3.714	High Level
When working with other people I am usually quite	3.706	High Level
influential.		
I usually find myself just going through the motions.	3.723	High Level
I generally feel that I am in control of what happens	3.647	High Level
in my life.		
Whenever I try to plan something, unforeseen factors	3.429	Average Level
usually seem to wreck it.		
I generally find it hard to relax.	3.160	Average Level
When I am upset or annoyed I usually let others	3.067	Average Level
know.		
I tend to worry about things well before they happen.	3.580	High Level
Even when under considerable pressure I usually	3.546	High Level
remain calm.		
Things just usually happen to me.	3.521	High Level
I generally hide my emotion from others.	3.723	High Level
When I am feeling tired I find it difficult to get going.	3.252	Average Level
I feel that what I do tends to make no difference.	3.059	Average Level
I can usually control my nervousness.	3.429	Average Level
Overall Weighted Mean	3.468	Average Level
Legend: "Very Low Level $(1.00 - 1.49)$ ", "Low level	1(1.50-2.4)	9)", "Average Level
(2.50 – 3.49)", "High Level (3.50 – 4.49)", "Very High	Level (4.50 -	- 5.00)"

 Table 6. Assessment of the Respondents in Mental Toughness in Terms of Control

Table 6 presents the assessment of the respondents in mental toughness in terms of control. It shows that the indicators such as "I usually find myself just going through the motions.", "Whenever I try to plan something, unforeseen factors usually seem to wreck it.", "I generally find it hard to relax.", "When I am upset or annoyed I usually let others know.", "When I am feeling tired I find it difficult to get along.", "I feel that what I do tends to make no difference.", and "I can usually control my nervousness", have the weighted means of 3.723, 3.429, 3.160, 3.067, 3.252, 3.059, and 3.429 respectively are described as an average level. The overall weighted mean in the assessment of the respondents on mental toughness in terms of control is 3.468 or described as an average level. Highscoring individuals tend to feel the overall control of their lives and have a belief that they can make things happen. This means that at one end of the scale individuals can handle lots of things at the same time. On the other hand, individuals with low scores feel that they are not really in control of their destiny, rather they are more at the mercy of the things and the people around them. This is in line with Madrigal et al., (2013) who define mental toughness as "the ability to be more consistent and better than one's opponent by being determined, focused, confident, and in control when under pressure" yet they measure this concept with items that capture personal qualities relevant to typical performance rather than through the demonstration of one's ability to enact the proposed mechanisms.

## Commitment

Table 7 below presents the assessment of the respondents in mental toughness in terms of commitment. The statement "I don't usually give up under pressure.", "I just don't know where to begin' is a feeling I usually have when presented with several things to do at once.", "I can generally be relied upon to complete the tasks I am given.", "I generally try to give 100%.", "I usually find it difficult to make a mental effort when I am tired.", and "I can normally sustain high levels of mental effort for long periods.", are assessed by the respondents as high levels with weighted means of 3.849, 3.513, 3.655, 4.402, 3.513, and 3.513 respectively.

Commitment	Weighted	Verbal
	Mean	Interpretation
I don't usually give up under pressure.	3.849	High Level
I just don't know where to begin' is a feeling I usually		
have when presented with several things to do at		High Level
once.	3.513	
I can generally be relied upon to complete the tasks I		High Loyal
am given.	3.655	Ingli Level
I am easily distracted from tasks that I am involved		Average Level
with.	3.101	Average Lever
I generally try to give 100%.	4.202	High Level
When faced with difficulties I usually give up.	2.605	Average Level
I usually find it difficult to make a mental effort when		High Loyal
I am tired.	3.513	nigli Level
I can normally sustain high levels of mental effort for		High Loyal
long periods.	3.513	Ingli Level
I usually find it hard to summon enthusiasm for the		Average Level
tasks I have to do.	3.252	Average Lever
When I face setbacks, I am often unable to persist		Average Level
with my goal.	3.151	Average Lever
Overall Weighted Mean	3.435	Average Level
Legend: "Very Low Level $(1.00 - 1.49)$ ", "Low level	el $(1.50 - 2.4)$	9)", "Average Level
(2.50 - 3.49)", "High Level $(3.50 - 4.49)$ ", "Very High Level $(4.50 - 5.00)$ "		

Table 7. Assessment of the Respondents in Mental Toughness in Terms of Commitment

The overall weighted mean of the assessment of mental toughness in terms of commitment is 3.435 and described as an average level. The findings of the study agree with Crust and Azadi (2010) who claim that mentally tough performers are more likely to adopt and adhere to such performance strategies and analyze that commitment, in particular, is a significant predictor of seeking to enhance psychological performance. Furthermore, individuals with high levels of commitment usually complete their tasks even under difficult conditions, finding different ways to motivate themselves. They have substantial internal resources that allow them to sustain high levels of effort. They are resilient and tenacious. Once they begin a task that they usually see it through to the end, tending to go around, or occasionally through, obstacles that are blocking the achievement of their end goal. Anyone who is highly committed is likely to be someone for whom a statement of a target or goal is enough – that is all such people need to get going and they will work out what to do for themselves. For low-scoring individuals, they may become easily diverted from the task at hand. They may find it difficult to complete tasks when facing significant adverse circumstances and may consequently give up too easily. They may become unwilling to sustain effort if they believe that they may find it hard to summon up enthusiasm for some tasks.

#### Challenge

Challenge	Weighted	Verbal
	Mean	Interpretation
I usually find something to motivate me.	4.286	High Level
Challenges usually bring out the best in me.	4.126	High Level
Unexpected changes to my schedule generally throw		High Loyal
me.	3.496	nigli Level
I often wish my life was more predictable.	3.370	Fairly Agree
I generally cope well with any problems that occur.	3.471	Fairly Agree
I am generally able to react quickly when something		High Loyal
unexpected happens.	3.605	Ingli Level
I usually look forward to changes in my routine.	3.588	High Level
I usually enjoy a challenge.	3.874	High Level
I can usually adapt myself to challenges that come		High Loyal
my way.	3.882	nigli Level
Overall Weighted Mean	3.744	High Level
Legend: "Very Low Level (1.00 – 1.49)", "Low level (1.50 – 2.49)", "Average L		
(2.50 - 3.49)", "High Level $(3.50 - 4.49)$ ", "Very High Level $(4.50 - 5.00)$ "		

 Table 8. Assessment of the Respondents in Mental Toughness in Terms of Challenge

Table 8 presents the levels of assessment of the respondents in terms of challenge. The statements "I usually find something to motivate me.", "Challenges usually bring out the best in me.", "Unexpected changes to my schedule generally throw me.", "I am generally able to react quickly when something unexpected happens.", "I usually look forward to changes in my routine.", "I usually enjoy a challenge.", and "I can usually adapt myself to challenges that come my way.", are assessed by the respondents as a high level with weighted means of 3.849, 3.513, 3.655, 4.402, 3.513, and 3.513 respectively. The overall weighted mean of the assessment of mental toughness in terms of the challenge is 3.744 and is described as a high level. High-scoring individuals will tend to see challenges as an opportunity rather than a threat, often using them as a way to achieve personal development. They are not intimidated by changes in their routine and may be actively drawn to fastmoving, challenging environments. They will tend to be 'quick on their feet', having an ability to quickly deal with unexpected events. Low-scoring individuals may feel a little daunted when facing challenging situations. They will tend to be a little uncomfortable in unstable environments and are likely to try to minimize their exposure to change where possible. They may prefer to work with established routines and will probably perform best in a stable environment. They have quite a strong

preference for the predictable over the unpredictable and be quite slow to react to unexpected changes. Typically, this might mean that the individual is reluctant to take on new work or challenges. They understand its place in the scheme of things.

This finds relevance to Crust and Keegan (2010) published a study using sixty-nine (69) male and thirty-six (36) female sports competitors from a range of club to national levels in a wide variety of sports, which associated mental toughness with physical risk-taking. Taking educated risks in sports is seen as desirable because more risky ventures often yield greater rewards. Of the mental toughness sub-scales, the challenge had the strongest relationship with physical risk-taking. It is worth noting though, that there is also a significant relationship between risk-taking and confidence. By combining challenge and confidence, performers can experience the desirable psychological state of flow.

## Confidence

Table 9. Assessment of the Respondents on Mental T	oughness in 7	<b>Ferms of Confidence</b>
Confidence	Weighted	Verbal
	Mean	Interpretation
I generally feel that I am a worthwhile person.	3.672	High Level
I am generally confident in my abilities.	3.756	High Level
At times I expect things to go wrong.	3.429	Average Level
However bad things are, I usually feel they will work		High Lavel
out positively in the end.	4.017	Ingli Level
I generally look on the bright side of life.	4.244	High Level
I usually speak my mind when I have something to		High Loyal
say.	4.017	nigli Level
At times, I feel completely useless.	3.118	Average Level
I usually take charge of a situation when I feel it is		High Loyal
appropriate.	3.857	Ingli Level
I do not usually criticize myself even when things go		High Lavel
wrong.	3.513	Ingli Level
I often feel intimidated in social gatherings.	3.227	Average Level
If something can go wrong, it usually will.	3.269	Average Level
When I make mistakes I usually let it worry me for		Average Level
days after.	3.210	Average Lever
I am comfortable telling people what to do.	3.143	Average Level
If I feel somebody is wrong, I am not afraid to argue		Average Level
with them.	3.294	Average Lever
In discussions, I tend to back down.	3.252	Average Level
<b>Overall Weighted Mean</b>	3.535	High Level
Legend: "Very Low Level (1.00 – 1.49)", "Low level (1.50 – 2.49)", "Average Le		
(2.50 – 3.49)", "High Level (3.50 – 4.49)", "Very High Level (4.50 – 5.00)"		

Table 9 presents the assessment of the respondents on mental toughness in terms of confidence. It can be seen that indicators, "At times I expect things to go wrong.", "At times, I feel completely useless.", "I often feel intimidated in social gatherings.", "If something can go wrong, it usually will.", When I make mistakes I usually let it worry me for days after.", I am comfortable telling people what to do.", If I feel somebody is wrong, I am not afraid to argue with them.", and "In discussions, I tend to back down.", have received weighted means of 3.429, 3.118, 3.227, 3.269, 3.210, 3.143, 3.294, and 3.252 respectively, and described as an average level. Meanwhile, the statements "I generally feel that I am a worthwhile person.", "I am generally confident in my abilities.", "However bad things are, I usually feel they will work out positively in the end.", "I

generally look on the bright side of life.", "I usually speak my mind when I have something to say.", "I usually take charge of a situation when I feel it is appropriate.", and "I do not usually criticize myself even when things go wrong.", have received the weighted means of 3.672, 3.756, 4.017, 4.244, 4.017, 3.875, and 3.513 respectively and described as high level.

The overall weighted mean in the assessment of the respondents on mental toughness in terms of confidence is 3.535 described as a high level. The findings of the study reveal that these individuals have high levels of self-confidence, and are self-assured. Typically they are seen as high achievers and will often succeed where others will give up or fail- but they may go for it when commitment is not warranted. Have the self-belief to complete tasks that might be considered too difficult by individuals with similar abilities. While individuals with low scores are not particularly confident and may lack a degree of self-belief. Typically, these individuals will react poorly to adversity and setback. This is congruent to Eysenck and Calvo (1992) who claim that a decrease in performance efficiency as a result of anxiety might manifest itself in the higher subjective effort, but only if participants felt they had a reasonable chance of success. Furthermore, a strong sense of confidence has been associated with the setting of challenging goals and the expenditure of maximal effort and persistence to achieve those goals (Bandura, 1986). Thus, athletes who are high in confidence are likely to succeed because of their productive achievement behaviors.

Table 10. Overall Weighted Mean of the Respondents in 4Cs of Mental Toughness						
<b>Dimension of Mental</b>	<b>Overall Weighted</b>	Verbal	RANK			
Toughness	Mean	Interpretation				
Control	3.468	Average Level	3			
Commitment	3.435	Average Level	4			
Challenge	3.744	High Level	1			
Confidence	3.535	High Level	2			

#### **Overall Weighted Mean of the Respondents**

challenge, and confidence. It can be seen that indicators "Challenge" has received an overall weighted mean of 3.744 as described as high level and placed in rank 1, indicators "Confidence" has received an overall weighted mean of 3.535 as described as high level, in rank 2, indicators "Control" has received weighted an overall weighted mean of 3.468 as described as an average level or rank 3, and indicators "Commitment" has received an overall weighted mean of 3.435 as average level or rank 4.

Table 10 presents the overall weighted mean of mental toughness in terms of control, commitment,

Similar to these findings, Clough et al., (2002) simplify the process by identifying four specific components of mental toughness. These components form the foundation of mental toughness and include one's degree of control, willingness to commit, the perception of a challenge, and feelings of confidence. Colloquially, they are referred to as the 4C's of Mental Toughness. Connaughton et al., (2008) also emphasizes that by practicing psychological skills consistently, mental toughness is maintained, and may result in effective performances.

#### **Sports Competition Anxiety Levels of the Respondents**

Table	11	Resnon	dents'	Scores	in 1	the S	norts	Com	netition	Anviety	Test
Table	11.	Respon	uents	SCOLES	III	uie s	μυιιδ	COM	pennon.	Analety	1631

Score	Score Verbal Equivalent		Percentage (%)
Less than 17	Low-Level anxiety	8	6.7
17 to 24	Average Level of Anxiety	96	80.7
More than 24	High Level of Anxiety	15	12.6
	119	100.0	

Table 11 shows the respondents' scores on the sports competitive anxiety test. Out of one hundred nineteen (119) respondents, nine-six (96) or 80.7% have an average level of anxiety, fifteen (15) or 12.6% have a high level of anxiety, and eight (8) or 6.7% have a low level of anxiety.

Medium or moderate levels are generally related to a better facilitative athletic performance. The majority of the athletes whose are scores reflected before the competition are considered positive. They can deliver and perform at the top of their game. However, there were eight (8) who scored a low level of anxiety while fifteen (15) scored a high level of anxiety. In general, when levels are either too high or too low, competitive anxiety is considered negative which is related to poorer performance. This indicated that these athletes are unable to deliver their best or peak performance. Athletes who represent both ends of the spectrum indicated that their level of sports competitive anxiety is debilitative. Therefore, it should not be ignored that these are areas of concern.

Athletes who have higher and lower than the average level of competitive sports anxiety are hindered from performing at their peak. This is confirmed by Ichaf *et al.*, (2013) that the control of competitive anxiety is important in achieving satisfactory performance. Anything otherwise, over or behind a certain level, is negative and not helpful. Similarly, based on Radochonski *et al.*, (2011), losers are athletes who exhibited higher levels of anxiety than winners.

# Relationship between the Mental Toughness Levels and Sports Competition Anxiety Levels of the Respondents

Levels of the Respondents							
Sports Competition Anxiety Level							
Indicator	<b>Correlation Coefficient</b>	p-value	Decision	Remarks			
Control	.277	.002	Reject Ho	Significant			
Commitment	.293	.001	Reject Ho	Significant			
Challenge	.283	.002	Reject Ho	Significant			
Confidence	.256	.005	Reject Ho	Significant			

 Table 12. Correlation between the Mental Toughness Levels and Sports Competition Anxiety

 Levels of the Respondents

**Note:** If the p-value is less than or equal to the level of significance which is 0.05 reject the null hypothesis otherwise accept. Correlation coefficient values:  $\pm 0.76 - \pm 0.99$  Very Strong;  $\pm 0.51 - \pm 0.75$  Strong;  $\pm 0.26 - \pm 0.50$  Moderate;  $\pm 0.11 - \pm 0.25$  Weak;  $\pm 0.01 - 0.10$  Very Weak.

Table 12 presents the correlation between the mental toughness levels in terms of control, commitment, challenge, and confidence, and sports competition anxiety levels of the respondents using Pearson Correlation. The correlation coefficient obtained is 0.277, 0.293, 0.283, and 0.256 which means that there is a moderate relationship between mental toughness level in terms of control, commitment, challenge, and confidence, and sports competition anxiety level and the sign of the correlation coefficient indicate the direction of the relationship. Based on the table above, the correlation coefficient is positive which means that the two variables have a direct relationship. Also, based on the computed p-value which is less than 0.002, 0.001, 0.002, and 0.005, there is a significant relationship between mental toughness levels in terms of control, commitment, challenge and confidence, anxiety level of the athletes, because based on the decision rule if the p-value is less than or equal to the level of significance which is 0.05, reject the null hypothesis otherwise retain, this implies that if the athlete increases the control, commitment, challenge, and confidence, there is a possible increase in mental toughness level.

The findings agree with Loehr (1986) who explains that a mentally tough individual has a high possibility to succeed in any level of the competitive match in which he will be able to cope under pressure, control his state of mind while stressed, and accept every challenge being faced. According

to Visram (2014), mental toughness, the ability to perform at one's best regardless of the circumstances is a modifiable psychological construct that may influence the cognitive appraisal. Altering an athlete's interpretation of stressful situations through mental toughness training could change how the athlete evaluates his/her ability to handle the stressors of training and competition and may attenuate negative psychological outcomes associated with increased illness and injury risk.

Likewise, according to Crust and Keegan (2010), mental toughness (MT) is a resistance resource or defense against the effects of stress from this perspective. MT acts as a stress moderator, whereby high-scoring individuals possess the capacity to deal effectively with pressures and challenges (Clough *et al.*, 2002). This delimitation of MT advances hardiness research, which depicts hardiness as a personality disposition that obviates the negative effects of stress and protects against related illness (Kobasa *et al.*, 1982).

#### Proposed Enhanced Mental Toughness Program Rationale

Sports are activities known to give marked emphasis on the physical attributes of the athletes; but as sports psychology advances its study of sports performance, it becomes more and more essential to integrate the mental and physical aspects of performance it is now being acknowledged that physical talent is not the only component that leads to athletic success (Gucciardi *et al.*, 2008) and that a greater percentage of success in sports is ascribed to psychological skills (Dale, 2010). It is also observed that it is not physical errors and pressures that hinder an athlete from achieving peak performances during trainings and tournaments but is attributed to psychological demands (Leunes and Nation, 2006).

Selected UST athletes spent hours and hours of rigorous and regimental physical trainings, however during competitions, some athletes may perform well despite massive pressures but not to their full potential, others may perform just satisfactorily while others may eventually "choke," a sudden inability to perform at one's normal standard. Failure to achieve peak performance, perhaps, may be due to poor or incompetent preparation of psychological strategies which coaches and athletes hardly ever realize that fact (Leunes and Nation, 2006).

Coaches and athletes would rather start planning again for a new physical strategy or a change in training schedules instead of utilizing mental skills. Today, the development and implementation of the intervention program in sports to address the difficulty of athletes to achieve peak performance in actual competitions have given great emphasis. Sports intervention programs aim to develop, enhance or strengthen athletes' cognitive, psychomotor, and affective skills intended to prepare, educate and train athletes on the various technical, physiological, and psychological skills needed to attain peak sports performance (Apruebo, 2005). In other words, it involves training the mind, much as an athlete trains the body to provide them and the teams with the skills and strategies to overcome cognitive and emotional barriers (Blumenstein *et al.*, 2005).

The use of mental toughness program that aims to enhance mental skills is increasing due to the realization that physical conditioning or training is not sufficient in attaining excellent athletic performance. Mental toughness program can incorporate several different mental skills; however, the program described here involves the seven attributes of mental toughness as described by Loehr (1986). These are self-confidence; negative energy; attention control; visualization and imagery control; motivational level; positive energy and attitude control.

The definition of a mentally tough athlete possesses better focus and attention, higher levels of selfconfidence; lower levels of anxiety, a more positive attitude; utilizes a positive point of view, and handles competitive stress better (Janelle and Hillman, 2003; Krane and Williams, 2006). These attributes of mental toughness directly or indirectly influence each other, for example, visualization and imagery improve concentration and attention, anxiety regulation, and energy management (Burton and Raedeke, 2008; Murphy and Martin, 2002), also boost self-confidence and feeling of in control, increases motivation (Pigozzi *et al.*, 2004; Mellalieu *et al.*, 2006), can function as a defense or shield between thoughts, feelings, and emotions (Zizzi *et al.*, 2003); proper relaxation and positive self-talk enable an athlete to better cope with competitive anxiety and a notable increase in self-confidence and motivation (Shinke and Costa, 2001). These psychological skills which can be learned (Loehr, 1986) form the heart of the present study and are believed to improve sports performance.

## Mental Toughness Program

To empower athletes to achieve their maximum performance to be more Competitive, and enjoy more of their journey as a player.

#### **Objectives of the Program**

- 1) to empower athletes to be highly skilled, competitive, and mentally tough
- 2) to upgrade attributes of mental toughness that "needs special attention" and "room for improvement
- 3) to make athletes appreciate and acknowledge the role of psychological skills in sports performance

## The Mental Toughness Program (MTP)

The conceptualization of the MTP is based on the result of the profiling of athletes where the belowaverage scores on negative energy control and attention control and an average score on selfconfidence, visualization and imagery control, motivational level, positive energy control, and attitude control were evident.

This program is designed and proposed primarily to take an initial step to help improve the psychological skills of selected UST athletes. This MTP is proposed to be conducted three (3) to five (5) times a week. Each activity is to be conducted following a time frame of ten (10) to fifteen (15) minutes of an overview of the activity, ten (10) to (15) minutes of an administration of the activity before physical training, and ten (10) to (15) minutes of processing of the activity.

It specifically follows Horn's (2002) three main phases of a Psychological Skills Training (PST) program: a) the educational phase–developing the understanding of the importance of PST and how it can affect performance; b) the acquisition phase–athletes learn how to use PST methods and how best to implement them. This aspect of the training program is designed to the needs of athletes and; c) the practice phase–this phase consists of the hand-over of psychological skills from practice and simulated situations to actual competitions. The rationale is on making the psychological skills automatic and habitual.

Objectives	Ac	tivities	Tool Used	<b>Duration/Time</b>	Learning Outcome
		Phas	e I: Educational Phase		
To build rapport with	~	Initial meeting	PowerPoint	1 hour	Realize and imbibe
the athletes;		with athletes	presentation showing		the value of
		involved	the significance of		psychological skills
To gain an in-depth		getting to	psychological skills		(mental toughness,
understanding of the		know each	to sports performance		and sports
importance of		other;			motivation) as well
psychological skills	$\checkmark$	Lecture on the			as an MTP sports
and an MTP to sports		strengths and			performance
performance		limitations of			
-		an MTP			
	✓	Schedule of			
		program			
		administration			

Table 13	. Mental	Toughness	Program	(MTP)
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Phase II: Acquisition Phase						
To establish proper	Negative energy	Simple breathing	15 minutes of	Athletes should		
techniques in breathing	control	exercises and	activity	manage to be calm,		
and relaxation		relaxation techniques	overview	relaxed, and		
exercises				composed under		
			10 to 15	pressure		
			minutes before			
			practice			
To alleviate feelings of			<b>5</b> . 10			
anxiety, fear, and			5 to 10 minutes			
apprehension;			of processing	4.11		
To alleviate feelings of	Negative energy	Relaxation	15 minutes of	Athletes are more		
anxiety, fear, and	control	Techniques and	activity	relaxed thereby		
apprenension;		Imagery	overview	eliminating somatic		
			10 to 15	and cognitive		
			10 10 15	sports performance:		
			ninitutes before	Athletes able to		
			practice	handle their fears		
				and worries		
To cope with negative				and worries		
and undesirable			5 to 10 minutes			
emotions			of processing			
To enhance the ability	Motivational level	Visualization and	15 minutes of	Increased interest		
of athletes to visualize		Imagery	activity	and determination		
positive outcomes to		(incorporating	overview	in pursuing their		
uplift their energy and		external imagery)		sports.		
willingness to			10 to 15	-		
persevere;			minutes before			
			practice			
			10 to 15			
			minutes of			
To inspire athletes to			processing			
perform well	<b>D</b>	<b>TTTTTTTTTTTTT</b>	1.7	×		
To heighten the ability	Positive energy	Visualization and	15 minutes of	Increased desire and		
of athletes to vividly	control	linagery	activity	yearning for		
visualize positive		(incorporating	overview	success;		
them with feelings of		externar infagery)	10 to 15	Drive and optimism		
satisfaction in their			ninutes before	towards sports		
sports			ninutes before	enhanced		
sports			practice	cillanceu		
			10 to 15			
			minutes of			
			processing			
To instill positive self-	Self-confidence	Positive self-talk	15 minutes of	Improved self-		
talk when faced with			activity	confidence may		
distractions;			overview	lower somatic and		
				cognitive anxiety		
			10 to 15			
			minutes before			
			practice			
			10 to 15			
To empower athletes'			minutes of			
self-concept			processing	T 1 10		
10 boost athlete's trust	Self-confidence	Positive affirmation	15 minutes of	Improved self-		
in his adilities;	and autuae control		activity	esteem;		
			overview			
			10 to 15	Unvielding habita		
			minutes before	of thoughts shifted		
L	l			Bino binitou		

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			practice	to a positive sports
To promote an			10 to 15	Denavior
irrefutable sports			minutes of	
behavior			processing	
To enhance athletes'	Attention control	One-pointing	15 minutes of	Ability to focus and
ability to be responsive			activity	concentrate
to what is more			overview	improved
moment.			10 to 15	
moment,			minutes before	
			practice	
			1	
To train athletes to			10 to 15	
refocus their attention			minutes of	
toward proper cues			processing	
To teach athletes how	Attention control	Mix and Match	15 minutes of	Athlete's sense of
to ignore what does			activity	developed
close attention to what			overview	developed
is more important at			10 to 15	
the moment;			minutes before	
,			practice	
To improve the ability			10 to 15	
of athletes to focus and			minutes of	
concentrate	Dha	as II. Dreatics Dhage	processing	
To deliver the	Actual practice and	Actual practice rnase	Duration of	Unbitual and
nsychological skills	competition	competition	practice and	automatic delivery
learned to actual	competition	competition	actual sports	of psychological
practice and			match	skills
competitions				

#### Summary of Findings, Conclusions, and Recommendations

This chapter provides a summary of the research that was undertaken. The summary contains the results accumulated, the findings from the results generated, the conclusions formulated from the findings, and the recommendations that the researcher deems necessary to be further studied.

#### **Summary of the Findings**

The following are the results yielded from the study:

#### Mental toughness level of the selected respondent UST athletes

#### Control

It was revealed that indicators "I usually find myself just going through the motions." and "I generally hide my emotion from others." received the highest weighted mean of 3.723 or described as a high level while indicators "I feel that what I do tends to make no difference." received the lowest weighted mean of 3.059 or described as an average level. The overall weighted mean for control is 3.468 or described as the average level.

#### Commitment

It was revealed that indicators "I generally try to give 100%." received the highest weighted mean of 4.202 or described as a high level while indicator "When faced with difficulties I usually give up." received the lowest weighted mean of 2.605 or described as an average level. The overall weighted mean for commitment is 3.435 or described as an average level.

#### Challenge

It was revealed that the indicators "I usually find something to motivate me." received the highest weighted mean of 4.286 or was described as a high level while the indicator "I often wish my life

was more predictable." received the lowest weighted mean of 3.370 or described as an average level. The overall weighted mean for the challenge is 3.744 or described as a high level.

# Confidence

It was revealed that the indicator "I generally look on the bright side of life." received the highest weighted mean of 4.244 or described as a high level while the indicator " at times, I feel completely useless." received the lowest weighted mean of 3.118 or described as an average level. The overall weighted mean for confidence is 3.535 or described as a high level.

# Sports competition anxiety level of the respondent

It was revealed that ninety-six (96) or 80.7% have an average level of anxiety, fifteen (15) or 12.6% have a high level of anxiety, and eight (8) or 6.7% have a low level of anxiety.

# Relationship between the mental toughness level and sports competition anxiety level of the respondents

The mental toughness level and sports competition anxiety level have a moderately significant relationship since the computed correlation coefficient for control, commitment, challenge, and confidence are .277, .293, .282, and .256 respectively which are higher than the p-value of .005.

# Proposed Enhanced Mental Toughness Program

A proposed enhanced mental toughness program was developed based on the results of the study.

# Conclusion

Based on the findings, the following conclusions were derived:

- 1) Some respondents tended to cover their emotions and just let themselves go with the flow, and they do not see any worth in their efforts.
- 2) Some respondents gave their best in all sports endeavors they get into but they easily gave up when they face difficulties.
- 3) Some respondents were more motivated when confronted with the challenging situation but they would like their lives must be more predictable.
- 4) Some respondents had a positive outlook on their life but they felt they tended to lose their selfesteem if they would not attain their goals.
- 5) Respondents set goals when they competed but the anxiety was experienced, and true among athletes.
- 6) Mental toughness and sports competition anxiety had a relationship but at a moderate level.
- 7) Based on the results of research, the hypothesis was accepted that there was a relationship between mental toughness with sports competition anxiety. The higher the mental toughness possessed by the athlete is, the lower the anxiety will be and vice versa.

#### Recommendations

In the light of the conclusions drawn from the study, the following are hereby recommended:

- 1) The school should provide a program intended to strengthen mental toughness and properly manage the anxiety levels of the athletes.
- 2) The schools should provide a program to strengthen the persistent level of the athletes.
- 3) The schools and the coaches should sustain the motivation level of the athletes by providing positive encouragement, and training them to be more patient with opportunities that are intended for them.
- 4) Team building activities should be conducted but more focused on strengthening the positive outlook in life of the athletes and developing honesty with their feelings or emotions.
- 5) The school should implement and evaluate the proposed mental toughness program.
- 6) A similar study must be done in the future involving larger respondents from other settings.

**Conflicts of interest:** There is no conflict of interest of any kind.

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