

Mental Toughness and Sport Competition Anxiety on Improving the Sport Performance of FEU Athletes and Cheer Dancers

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Abstract: This study aimed to determine the level of mental toughness and sport competition anxiety of FEU athletes and cheer dancers in relation to their performance in University Athletic Association of the Philippines (UAAP) season 75th. The descriptive method, specially survey and documentary analysis were used in the study. The results of the University Athletic Association of the Philippines 75th season were utilized. The sources of data in this study were the FEU 54 student athletes and 25 cheer dancers. The instruments used were all standardized. MT 18 is a standardize questionnaire that provides an overall score of mental toughness in order for the researcher to measure the level of mental toughness of the respondents and originally from the book of Solution in Sport Psychology by Ian Cockerill (2002) and also cited from the book of Sport and Exercise Psychology (2011). Sport Competition Anxiety Test (SCAT) a standard questionnaire also used, from the book of Inside Sport Psychology by Costas I. Karageorghis, PhD, Cpsychol, FBASES Peter C. Terry, PhD, FBASES, FAPS (2011). These instruments gathered the complete data needed in this study.

Keywords: mental, toughness, sport, competition, anxiety, improving, sports performance, athletes, cheer dancers.

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1. Introduction

Athletes are warriors in the ring of their specific sports. Before warriors go to the battle field and bring out their swords to fight against their enemy, they should have preparation and plans, to be ready physically, mentally and emotionally. According to Garfield and Bennet (1984)“ The most important factor of experiencing peak performance is letting go and to let go, the athlete must relax his or her mind and body and use mental pictures to develop concentration by holding the mental picture of the desired result for a few seconds”. Staying focused for the entire game competition is often the key to victory and losing that focus is the ticket to failure.

Sport visualization is the key to success, if one can visualize how to be successful eventually he will be. In competition psychological factors plays as crucial role as physical attributes and learned skills in the making of champions. (www. Motivation 4 athleteess.com/mentaltoughness). The role of physical skills is also important, as the athlete should have to achieve better control with the game and eventually achieve the victory.

Mental strength is not going to compensate for lack of skills, but in close contests it can make the difference between winning and losing. (Lee Crust, 2008).

Vealey mentioned Coleman Griffith's notion on mind over body:

“The human body is a machine; it is a great chemical laboratory; it is an achievement of engineering; but also a self. The ancient believed that the body was merely the dwelling place of spiritual being, and that this being looked out through the eyes as one would look through a window to get knowledge of the external world.

This quotation was cited in the dissertation of Dr. Jayson Cruz, and he explained “This means that the mind rules our body. Despite of obstacle or harsh conditions, the mind can dominate the body to go even beyond its limits in order to come up with aspired result. The hurdling of obstacles involves trust in one's ability in executing a specific task. It is part of broader concepts of the “ego”, which is deeply connected to our self-evaluation or picture of us. The feeling of effectiveness with regard to specific activities expresses itself in ones' attitude and motivation or will to do the task.

1.1 Objectives of the Study

This study assessed the Mental Toughness and Sport Competition Anxiety of FEU Athletes and Cheer dancers. Specially, it answered the following sub problems: What is the profile of the respondents in terms of the following variables age, gender, number of UAAP playing years. What level is the mental toughness of FEU athletes of these individual/dual events in terms of badminton, beach volleyball, table tennis, taekwondo? What level is the sport competition anxiety of FEU athletes in the aforementioned individual /dual events? Badminton, beach volleyball, table tennis, taekwondo? What level is the mental toughness of FEU cheer dancers? What level is the sport competition anxiety of FEU cheer dancers? Is there a significant difference on the mental toughness of FEU athletes in relation of their sport performance in UAAP 75th season games if classified according to the following variables age, gender, number of UAAP playing years? Is there a significant difference on the sport competition anxiety of FEU athletes in relation to their sport performance in UAAP 75th season games if classified according to the following variables age, gender number of UAAP playing years? Is there a significant difference on the mental toughness of FEU cheer dancers in relation to their performance in UAAP 75th season games if classified according to the following variables age, gender, number of years participating I UAAP cheer dnce competition.

Is there a significant difference on the sport competition anxiety of FEU cheer dancers in relation to their performance in UAAP 75th season games if classified according to the following variables age, gender, and number of years participating in UAAP cheer dance competition? Based on the findings of the study, what action plan can be proposed to improve the performance of FEU athletes and cheer dancers during competition?

2. Methodology

This study focused on the significant difference on the mental toughness and sport competition anxiety of FEU athletes and cheers dancers in relation of the game competition result in UAAP 75th season games through their age, gender and number of UAAP playing years used. According to Sanchez as cited to Birion (2005), a descriptive research includes all of those studies that support to present facts concerning the nature and status of anything. It is concerned with conditions of relationship that exist; practice that prevail, beliefs, processes that are going on; effects that being felt or trends that are developing.

The researcher sought to use descriptive research. Descriptive researches also defined by Gay (1997) as quoted from the book of Brion (2005) involve the collection of data in order to arrive at a conclusion. Good, Barr and Scates state a descriptive method is a way of ascertaining the condition of study.

The researcher used a questionnaire of three parts, namely; the demographic profile of the respondents, the 18-item mental toughness questionnaire (MT 18) and Sport Competition Anxiety Test.

The questionnaire used to measure the mental toughness and sport competition anxiety of respondents. As supplementary informal interview conducted to validate the data gathered through the questionnaire. Both the interview and the questionnaire focused on the respondents' mental assessment for 75th season UAAP games. The result of the competition came from the FEU Athletic Department.

Scale and interpretation of the questionnaires: 18-item Mental Toughness Questionnaire (MT 18)

The answer of the respondents to the 18 questions of the mental toughness questionnaire (MT 18) sum up and divided into 18 and interpreted base on the scale given:

4.21-5.00	Very high level
3.41-4.20	High level
2.61-3.40	Moderate level
1.81-2.60	Low level
1.00-1.80	Very low level

Sport Competition Anxiety Test

Calculating the score:

For questions 2, 3, 5, 8, 9, 12, 14, and 15:

Rarely=1; Sometimes=2; Often=3

For questions 6 and 11

Rarely=3; Sometimes=2; Often=1

SCAT Score	Analysis
Less than 17	low level of anxiety
17-24	average level of anxiety
More than 24	high level of anxiety

3. Results and Discussion

This chapter contains information about the results of the study and the analysis and interpretation of data gathered with the use of the adapted statistical measures. The presentation includes a narrative discussion of the results and implications of the data gathered which are illustrated in tables.

3.1 The Respondents' of the Study

This study used FEU student athletes under the individual/dual events like badminton, beach volleyball, chess, fencing, table tennis, taekwondo; and track and field team during UAAP 75th season, as the respondents. The respondents of the study included a total population of 79 of various individual/dual events as the following:

Table 1. Number of Respondents

Sport Event	No. of Players
Badminton	16 players
Beach Volleyball	6 players
Table Tennis	16 players
Taekwondo	16 players
Cheer Dancers	25 dancers
Total	79

3.2 The Game Results of the Athletes' Performance

Table 2. The Game Result of the Athletes' Performance

Event	Result
Table Tennis Boys	3 rd place
Table Tennis Girls	3 rd place
Taekwondo Boys	4 th place
Taekwondo Girls	3 rd place
Beach Volleyball Boys	2 nd place
Beach Volleyball Girls	6 th place
Badminton Girls	2 nd place
Badminton Boys	5 th place
Cheer dancers	2 nd place

Topic 1: The profile of the respondents in terms of the following variables:

Age

Gender

Number of UAAP playing years

Table 3. Profile of the Respondents in Terms of Age and Gender

Gender	Badminton		Beach Volleyball		Table Tennis		Taekwondo		Cheer Dancers		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Female	8	10%	3	4%	8	10%	8	10%	13	16%	40	51%
Male	8	10%	3	4%	8	10%	8	10%	12	15%	39	49%
Total	16	20%	6	8%	16	20%	16	20%	25	32%	79	100%

Age Bracket	Badminton		Beach Volleyball		Table Tennis		Taekwondo		Cheer Dancers		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
15-17	4	5%			9	11%	6	8%	7	9%	26	33%
18-20	8	10%	4	5%	6	8%	8	10%	9	11%	35	44%
21-23	3	3%	2	3%	1	1%	1	1%	9	11%	16	20%
24-26	1	1%					1	1%			2	3%
Total	16	20%	6	8%	16	20%	16	20%	25	32%	79	100%

Most of the players and cheer dancers are in the age of 18 to 20. However least of them are in age of 24 to 26. In every sport event there is an equal number of players in male and female category however in cheer dance event there are more females than males.

Table 5. Profile of the Respondents in Terms No. of UAAP Playing Years Used

UAAP Playing Years	Badminton		Beach Volleyball		Table Tennis		Taekwondo		Cheer Dancers		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
1	5	6%	2	3%	9	11%	5	6%	9	11%	30	38%
2	7	9%	3	4%	3	4%	4	5%	3	4%	20	25%
3	2	3%			4	5%	3	4%	7	9%	16	20%
4	2	3%	1	3%			3	4%	6	8%	12	15%
5							1	1%			1	1%
Total	16	20%	6	8%	16	20%	16	20%	25	32%	79	100%

Table 5 presents the profile of the respondents in terms of no. of UAAP playing years used. In badminton event, 6% of the players were freshmen, 9% were in their second year of the competition, 3% were in their 3rd year and also 3% were in their 4th year in the competition. In beach volleyball event, 3% were in their 1st year, 4% in their 2nd year and 3% in his 4th year in the competition. In table tennis, there were 11%, who were in their 1st year, 4% in their 2nd year of UAAP competition and 5% in their 3rd year of UAAP competition. In taekwondo event, 6% in their 1st year, 5% were in their 2nd year, 4% were in there 3rd year and also 4% were in their 4th year of UAAP competition and only 1% in his last year of UAAP competition. However, in the cheer dance competition, there were 11% 1st year, 4% were in their 2nd year, 9% were in their 3rd year and 8% were in their 4th year of the UAAP cheer dance competition. In the total of 38% that in their 1st year of their UAAP competition, 25% in their 2nd year, 20% are in their 3rd year of their UAAP competition, 15% were in their 4th year of their UAAP competition and only 1% is in his last year of UAAP competition. Coaches prefer to train his athletes or cheer dancers for a year before he will line up them in the actual UAAP event, that is why if some of the athletes or cheer dancers were only in their first UAAP event then it doesn't mean that all of them were freshmen, some of them maybe 2nd year or 3rd year in their college years. There is a big possibility also that coaches will not allow the graduating athletes to be in the line up in the UAAP games since the coach know that, that athlete will not focus 100% to his sport career since his priority on that time was his academic, then after graduated and still have his playing years in UAAP, he can still enroll in any courses and play in the UAAP, as long as his age is 25 and below, because based on the UAAP rules, 26 and above will not allowed to play anymore even if he still have playing years.

Topic 2: The Level of the mental toughness of FEU athletes in the following events

Badminton

Beach Volleyball

Table Tennis

Taekwondo

Table 6. Level of Mental Toughness of FEU Athletes

Mental Toughness of FEU Athletes	Badminton		Beach Volleyball		Table Tennis		Taekwondo		Composite Mean	
	WM	VI	WM	VI	WM	VI	WM	VI	WM	VI
1. Even when under considerable pressure I usually remain calm	3.25	ML	3.17	M L	3.50	HL	3.88	HL	3.45	HL
2. I tend to worry about things well before they actually happen	3.25	ML	3.00	M L	3.19	M L	3.38	ML	3.21	M L
3. I usually find it hard	3.44	HL	3.00	M L	3.13	M L	3.06	ML	3.16	M L
4. I generally cope well with any	3.5	HL	3.33	M	3.38	M	3.13	ML	3.34	M

problems occur				L		L				L
5. I generally feel that I am worthwhile person	3	ML	3.33	M L	3.44	HL	3.19	ML	3.24	M L
6. I just don't know where to begin, a feeling I usually have when	3.31	ML	3.00	M L	3.13	M L	3.00	ML	3.11	M L
7. I usually speak my mind when I have something to say.	3.44	HL	3.33	M L	3.88	HL	3.00	ML	3.41	HL
8. When I make mistakes I usually get worry me days after.	3.31	ML	3.17	M L	3.44	HL	3.00	ML	3.23	M L
9. In discussions, I tend to back-down even when I feel strongly about something.	3.06	ML	3.33	M L	3.19	M L	3.31	ML	3.22	M L
10. I generally feel in control.	3.63	HL	3.17	M L	3.94	HL	3.75	HL	3.62	HL
11. I often wish my life was more predictable.	3.25	ML	3.33	M L	3.31	M L	3.75	HL	3.41	HL
12. When I am feeling tired I find it difficult to get going.	3.38	ML	2.83	M L	3.00	M L	3.25	ML	3.12	M L
13. I am generally able to react quickly when something unexpected happens.	3.06	ML	3.33	M L	3.81	HL	3.13	ML	3.33	M L
14. However bad things are I usually	3.13	ML	3.50	HL	4.00	HL	3.50	HL	3.53	HL
15. I generally look on the bright side of life .	3.75	HL	3.67	HL	4.13	HL	3.13	ML	3.67	HL
16. I generally find it hard to relax.	3.44	ML	3.83	HL	3.00	M L	3.56	HL	3.46	HL
17. I usually find it difficult to make a mental effort when I tired.	3.63	HL	3.17	M L	3.38	M L	3.31	ML	3.37	M L
18. If I feel somebody is wrong I am not afraid to argue with them.	3.63	HL	3.00	M L	3.25	M L	3.56	HL	3.36	M L
Composite Mean	3.36	ML	3.25	M L	3.45	HL	3.33	ML	3.35	M L

Table tennis players had the high level of mental toughness. However the rest got only moderate level.

Topic 3: The level of the sport competition anxiety of FEU athletes in the aforementioned individual /dual events

Table 7. Level of Sport Competition Anxiety of FEU Athletes

Sport Competition Anxiety Test Score	Badminton			Beach Volleyball			Table Tennis			Taekwondo		
	N	%	VI	N	%	VI	N	%	VI	N	%	VI
Less than 17				1	17	LLA	1	6	LLA			
17-24	10	63	ALA	5	83	ALA	13	81	ALA	16	100	ALA
More than 24	6	38	HLA				2	13	HLA			
Total	16	100		6	100		16	100		16	100	

Legend

SCAT Score: Interpretation/Analysis

Less than 17: low level of anxiety (LLA)

17-24: average level of anxiety (ALA)

More than 24: high level of anxiety (HLA)

Badminton and table tennis got the high level of anxiety while the rest got average level.

Topic 4: The level of the mental toughness of FEU cheer dancers

Table 8. Level of Mental Toughness of FEU Cheer Dancers

Mental Toughness of FEU Cheer Dancers	Cheer Dancers	
	WM	VI
1. Even when under considerable pressure I usually remain calm	2.96	ML
2. I tend to worry about things well before they actually happen	2.20	LL
3. I usually find it hard to summon enthusiasm for the task I have to do	2.32	LL
4. I generally cope well with any problems occur	3.32	ML
5. I generally feel that I am worthwhile person	3.08	ML
6. I just don't know where to begin, a feeling I usually have when presented with several things to do at once.	2.68	ML
7. I usually speak my mind when I have something to say.	3.48	HL
8. When I make mistakes I usually get worry me days after.	2.84	ML
9. In discussions, I tend to back-down even when I feel strongly about something.	3.04	ML
10. I generally feel in control.	3.36	HL
11. I often wish my life was more predictable.	2.88	ML
12. When I am feeling tired I find it difficult to get going.	2.96	ML
13. I am generally able to react quickly when something unexpected happens.	3.52	HL
14. However bad things are I usually feel they will work out positively in the end.	3.72	HL
15. I generally look on the bright side of life .	3.80	HL
16. I generally find it hard to relax.	2.76	ML
17. I usually find it difficult to make a mental effort when I tired.	2.80	ML
18. If I feel somebody is wrong I am not afraid to argue with them.	2.84	ML
Composite Mean	3.03	ML

Cheer dancers have a moderate level of mental toughness. Based on the research by Marchant *et al.*, (2009) entitled Mental Toughness: Managerial and Age Differences. Journal of Managerial Psychology (2009); follow-up analysis revealed that mental toughness ratings were higher in more senior positions, and that mental toughness generally increased with age. Since most of the cheer dancers are younger then it is only normal that they have only ML-moderate level of mental toughness as their findings.

Topic 5: The level is the sport competition anxiety of FEU cheer dancers?

Table 9. Level of Sport Competition Anxiety of FEU Cheer Dancers

Sport Competition Anxiety Test Score	Cheer dance		
	N	%	VI
Less than 17			
17-24	22	88	ALA
More than 24	3	12	HLA
Total	25	100	

Legend

SCAT Score: Interpretation/Analysis; Less than 17: low level of anxiety (LLA); 17-24: average level of anxiety (ALA); More than 24: high level of anxiety (HLA)

88% of FEU cheer dancers had an average level of sport competition anxiety and 12% of the cheer dancers had a high level of sport completion anxiety.

Topic 6 the significant difference on the mental toughness of FEU athletes in relation of their sport performance in UAAP 75th season games if classified according to the following variables:

Age

Gender

Number of UAAP playing years

Table 10. Significant Difference on the Mental Toughness of FEU Athletes in Relation to their Sport Performance in UAAP 75th Season Games in terms of Age

Variable	Source	SS	df	MS	Computed F-Value	Tabular F-Value at .05	Interpretation	Decision
Age	Between	6.28	3	2.094	10.455	2.76	Significant	Reject the Null Hypothesis
	Within	13.62	68	0.200				
	Total	19.90	71					

Table 11. Comparison of the Mental Toughness of FEU Athletes in Relation to their Sport Performance in UAAP 75th Season Games in terms of Age

Between Age Bracket	Scheffés Test	(F.05)(K-1)	Interpretation
15-17 vs 18-20	0.135	8.28	Not Significant
15-17 vs 21-23	0.435	8.28	Not Significant
15-17 vs 24-26	8.30	8.28	Significant
18-20 vs 21-23	1.346	8.28	Not Significant
18-20 vs 24-26	8.31	8.28	Significant
21-23 vs 24-26	8.29	8.28	Significant

Table 12. Significant Difference on the Mental Toughness of FEU Athletes in Relation to their Sport Performance in UAAP 75th Season Games in terms of Gender

Variable	Computed Z -test Value	Tabular Z-test Value at .05	Interpretation	Decision
Gender	4.171	1.676	Significant	Reject the Null Hypothesis

Table 13. Significant Difference on the Mental Toughness of FEU Athletes in Relation to their Sport Performance in UAAP 75th Season Games in terms of Number of Playing Years

Variable	Source	SS	df	MS	Computed F-Value	Tabular F-Value at .05	Interpretation	Decision
Number of Playing Years	Between	4.19	4	1.048	5.397	2.53	Significant	Reject the Null Hypothesis
	Within	16.51	85	0.194				
	Total	20.70	89					

Table 14. Comparison of the Mental Toughness of FEU Athletes in Relation to their Sport Performance in UAAP 75th Season Games in terms of Playing Years

Between No. of Playing Years	Scheffé's Test	(F.05)(K-1)	Interpretation
1 vs 2	2.21	10.12	Not Significant
1 vs 3	4.43	10.12	Not Significant
1 vs 4	10.15	10.12	Significant
1 vs 5	10.23	10.12	Significant
2 vs 3	4.67	10.12	Not Significant
2 vs 4	10.45	10.12	Significant
2 vs 5	10.32	10.12	Significant
3 vs 4	10.33	10.12	Significant
3 vs 5	10.21	10.12	Significant
4 vs 5	10.24	10.12	Significant

There is a significant difference on the mental toughness of FEU athletes in relation to their sport performance in UAAP 75th season games in terms of age. There is a significant difference on the mental toughness of FEU athletes in relation to their sport performance in UAAP 75th season games in terms of gender. There is a significant difference on the mental toughness of FEU athletes in relation to their sport performance in UAAP 75th season games in terms of no. of playing years. Similar to the study "Mental Toughness in Sport: Achievement Level, Gender, Age, Experience and Sport Type Difference (Nicholls et al, 2006), that base on its result there is also a significant difference between the age and mental toughness.

Topic 7 The significant difference on the sport competition anxiety of FEU athletes in relation of their sport performance in UAAP 75th season games if classified according to the variables given

Table 15. Significant Difference on the Sport Competition Anxiety of FEU Athletes in Relation to their Sport Performance in UAAP 75th Season Games in terms of Age

Variable	Source	SS	df	MS	Computed F-Value	Tabular F-Value at .05	Interpretation	Decision
Age	Between	0.09	3	0.031	0.319	2.76	Not Significant	Accept the Hypothesis
	Within	5.40	56	0.096				
	Total	5.49	59					

Table 16. Significant Difference on the Sport Competition Anxiety of FEU Athletes in Relation to their Sport Performance in UAAP 75th Season Games in terms of Gender

Variable	Computed Z –test Value	Tabular Z-test Value at .05	Interpretation	Decision
Gender	0.392	1.676	Not Significant	Accept the null hypothesis

Table 17. Significant Difference on the Sport Competition Anxiety of FEU Athletes in Relation to their Sport Performance in UAAP 75th Season Games in terms of No. of Playing Years

Variable	Source	SS	df	MS	Computed F-Value	Tabular F-Value at .05	Interpretation	Decision
Number of Playing Years	Between	0.52	4	0.131	1.590	2.76	Not Significant	Accept the Hypothesis
	Within	5.77	70	0.082				
	Total	6.29	74					

There is no significant difference on the sport competition anxiety of FEU athletes in relation to their sport performance in UAAP 75th season games in terms of age.

There is no significant difference on the sport competition anxiety of FEU athletes in relation to their sport performance in UAAP 75th season games in terms of gender.

There is no significant difference on the sport competition anxiety of FEU athletes in relation to their sport performance in UAAP 75th season games in terms of number of playing years. Similar to the study of The book of Theresa Smith (1983) cited by David A. Tobar. (2012) Trait anxiety and mood state responses to overtraining in men and women college swimmers. International Journal of Sport and Exercise Psychology 10:2, 135-148online publication date: 1-Jun-2012, stated that sex does not differentiate between competitive anxiety of boy and girl athletes because they perceive competition stress in much the same manner (Scanlan and Passer, 1978.1979)

Topic 8. The significant difference on the mental toughness of FEU cheer dancers in relation of their performance in UAAP 75th season games if classified according to the following variables:

Age

Gender

Number of years participating in UAAP cheer dance competition

Table 18. Significant Difference on the Mental Toughness of FEU Cheer Dancers in Relation to their Performance in UAAP 75th Season Games in terms of Age

Variable	Source	SS	df	MS	Computed F-Value	Tabular F-Value at .05	Interpretation	Decision
Age	Between	7.78	2	3.888	15.018	3.15	Significant	Reject the Null Hypothesis
	Within	13.20	51	0.259				
	Total	20.98	53					

Table 18 presents the significant difference on the mental toughness of FEU cheer dancers in relation to their performance in UAAP 75th season games in terms of no. of playing years. Based on the table the computed F-value was 15.018 and the tabular F-value at 0.05 level of significance was 3.15. Since the computed value is greater than the tabular value, then it is significant. The null hypothesis that there is no significant difference on the mental toughness of FEU cheer dancers in relation to their dance performance in UAAP 75th season games in terms of age was rejected, it means that the mental toughness in terms of gender of the cheer dancers differ significantly. Similar to the study “Mental Toughness in Sport: Achievement Level, Gender, Age, Experience and Sport Type Difference (Nicholls et al, 2006), that base on its result there is also a significant difference between the age and mental toughness.

Table 19. Comparison of the Mental Toughness of FEU Cheer Dancers in Relation to their Performance in UAAP 75th Season Games in terms of Age

Age	Scheffés Test	(F.05)(K-1)	Interpretation
1 vs 2	3.67	6.3	Not Significant
1 vs 3	6.31	6.3	Significant
2 vs 3	6.56	6.3	Significant

Legend:

1- 15-17

2-18-20

3- 21-23

4- 24-26

To determine which of the age bracket differ significantly, table 19 shows the comparison of the age brackets and based on the table the higher the age bracket the higher mental toughness. Age bracket of 21-23 years old has the higher mental toughness among its age bracket. Based on the data, there were no cheer dancers who were under the age bracket of 24-26, these age bracket were the critical as a performer, most of them were graduating in their courses and there is a big possibility that most of them who reaches this age brackets give up their career to focus on their study.

Table 20. Significant Difference on the Mental Toughness of FEU Cheer Dancers in Relation to their Performance in UAAP 75th Season Games in terms of Gender

Variable	Computed Z –test Value	Tabular Z-test Value at .05	Interpretation	Decision
Gender	2.801	1.711	Significant	Reject the Null Hypothesis

Table 20 presents the significant difference on the sport competition anxiety of FEU athletes in relation to their performance in UAAP 75th season games in terms of gender. Based on the table the computed z- test value was 2.801 and the tabular F-value at 0.05 level of significance was 1711. Since the computed value is greater than the tabular value, then it is significant. The null hypothesis that there is no significant difference on the sport competition anxiety of FEU athletes in relation to their dance performance in UAAP 75th season games in terms of gender was rejected, it means that the mental toughness in terms of gender of the FEU cheer dancers differ significantly. This was similar to the study “Mental Toughness in Sport: Achievement Level, Gender, Age, Experience and Sport Type Difference (Nicholls et al, 2006), that based on its result there is also a significant difference between the gender and mental toughness of athletes.

Table 21. Significant Difference on the Mental Toughness of FEU Cheer Dancers in Relation to their Performance in UAAP 75th Season Games in terms of No. of years Participating Cheer Dance Competition

Variable	Source	SS	df	MS	Computed F-Value	Tabular F-Value at .05	Interpretation	Decision
Number Participating Cheer Dance Competition	Between	16.08	3	5.359	16.339	3.15	Significant	Reject the Null Hypothesis
	Within	23.29	71	0.328				
	Total	39.36	74					

Table 21 presents the significant difference on the sport competition anxiety of FEU cheer dancers in relation to their performance in UAAP 75th season games in terms of no. of UAAP years performing. Based on the table the computed F-value was 16.339 and the tabular F-value at 0.05 level of significance was 3.15.

Since the computed value is higher than the tabular value, then it is significant. The null hypothesis that there is no significant difference on the sport competition anxiety of FEU cheer dancers in relation to their dance performance in UAAP 75th season games in terms of UAAP years performing was rejected, it means that the mental toughness in terms of no. of UAAP years performing of the cheer dancers differ significantly.

FEU cheer dancers, ranked number 2 on the UAAP 75th season, based on table no. 4 they had moderate level of mental toughness.

Table 22. Comparison of the Mental Toughness of FEU Cheer Dancers in Relation to their Performance in UAAP 75th Season Games in terms of No. of years in Participating Cheer Dance Competition

No. of Years in Participating Cheer Dance Competition	Scheffés Test	(F.05)(K-1)	Interpretation
1 vs 2	3.21	9.45	Not Significant
1 vs 3	0.124	9.45	Not Significant
1 vs 4	9.56	9.45	Significant
2 vs 3	3.256	9.45	Not Significant
2 vs 4	9.48	9.45	Significant
3 vs 4	9.46	9.45	Significant

To determine which no. of playing years differs significantly, table 22 shows the comparison of the no. of playing years and based on the table the higher the no. of playing years the higher mental toughness.

Athletes that already had 4 playing years had a higher mental toughness among other athletes that have a less number of playing years.

Topic 9 The significant difference on the sport competition anxiety of FEU cheer dancers in relation of their performance in UAAP 75th season games if classified according to the following variables

Age

Gender

Number of years participating in UAAP cheer dance competition.

Table 23. Significant Difference on the Sport Competition Anxiety of FEU Cheer Dancers in Relation to their Performance in UAAP 75th Season Games in terms of Age

Variable	Source	SS	df	MS	Computed F-Value	Tabular F-Value at .05	Interpretation	Decision
Age	Between	1.07	2	0.535	8.408	3.15	Significant	Reject the Null Hypothesis
	Within	2.67	42	0.064				
	Total	3.74	44					

Table 23 presents the significant difference on the sport competition anxiety of FEU cheer dancers in relation to their performance in UAAP 75th season games in terms of age performing. Based on the table the computed F-value was 8.408 and the tabular F-value at 0.05 level of significance was 3.15. Since the computed value is higher than the tabular value, then it is significant. The null hypothesis that there is no significant difference on the sport competition anxiety of FEU cheer dancers in relation to their dance performance in UAAP 75th season games in terms of age was rejected, it means that the mental toughness in terms of age of the cheer dancers differ significantly. Base on table7, it shows that 88% of the cheer dancers have the average level of anxiety while 12% of them have high level of anxiety. FEU cheer dancers agreed that it is normal to feel anxious when they are in the competition, but it depends on them if they handle their anxiety in positive reinforcement. They got rank 2 in the UAAP 75th season.

Table 24. Comparison of the Sport Competition Anxiety of FEU Cheer Dancers in Relation to their Performance in UAAP 75th Season Games in terms of Age

Age	Scheffés Test	(F.05)(K-1)	Interpretation
1 vs 2	6.34	6.3	Significant
1 vs 3	6.32	6.3	Significant
2 vs 3	3.21	6.3	Not Significant

Legend:

1-15-17

2-18-20

3-21-23

4-24-26

To determine which of the age bracket differ significantly, table 24 shows the comparison of the age brackets and based on the table age bracket 15-17 and age bracket 18-20, and age bracket 21-23 differ significantly while age bracket 21-23 and 18-20, don't differ significantly. Based on the statement of the FEU cheer dancers, as they got in their 4th year of their courses in Far Eastern University, some of them decided to rest in cheering competition and focus on their academics, as was explained in table 20.

Table 25. Significant Difference on the Sport Competition Anxiety of FEU Cheer Dancers in Relation to their Performance in UAAP 75th Season Games in terms of Gender

Variable	Computed Z – test Value	Tabular Z-test Value at .05	Interpretation	Decision
Gender	0.392	1.711	Significant	Reject the Null Hypothesis

Table 25 presents the significant difference on the sport competition anxiety of FEU cheer dancers in relation to their dance performance in UAAP 75th season games in terms of gender performing. Based on the table the computed F-value was 0.392 and the tabular F-value at 0.05 level of significance was 1.711. Since the computed value is lesser than the tabular value, then it is significant. The null hypothesis that there is no significant difference on the sport competition anxiety of FEU cheer dancers in relation to their dance performance in UAAP 75th season games in terms of gender was rejected, it means that the mental toughness in terms of gender of the cheer dancers differ significantly. It is similar of the the study of Wark, Katherine A.; Wittig, Amo F., Sex Role and Sport Competition Anxiety, results, that the relationship between sex roles and the experience of anxiety in competition. It is suggested that feminine character traits in both men and women are associated with a greater experience of anxiety. Details of a study to investigate the relationship between sex role and anxiety are presented. Results of the study showed that athletes with feminine traits experienced more anxiety than those with masculine traits.

Table 26. Significant Difference on the Sport Competition Anxiety of FEU Cheer Dancers in Relation to their Performance in UAAP 75th Season Games in terms of No. of years in Participating in Cheer Dance Competition

Variable	Source	SS	df	MS	Computed F-Value	Tabular F-Value at .05	Interpretation	Decision
Number Participating Cheer Dance Competition	Between	1.55	3	0.518	4.690	3.15	Significant	Reject the Null Hypothesis
	Within	6.19	56	0.110				
	Total	7.74	59					

Table 26 presents the significant difference on the sport competition anxiety of FEU cheer dancers in relation to their performance in UAAP 75th season games in terms of no. of years performing. Based on the table the computed F-value was 4.690 and the tabular F-value at 0.05 level of significance was 3.15. Since the computed value is greater than the tabular value, then it is significant. The null hypothesis that there is no significant difference on the sport competition anxiety of FEU cheer dancers in relation to their dance performance in UAAP 75th season games in terms of gender was accepted, it means that anxiety of the cheer dancers in terms of number of years participating in UAAP differ significantly. Similar to the article titled “Mental Toughness in Sports: A Ballerina’s Perspective” It talks about the perspective of a ballerina, where she gets her mental toughness- the mental toughness built by a combination of the variety of mental skills becomes just as necessary as daily practice in a young adult’s evolution to a successful, fulfilled athlete or performer.

Table 27. Comparison of the Sport Competition Anxiety of FEU Cheer Dancers in Relation to their Sport Performance in UAAP 75th Season Games in terms of No. in Participating Cheer Dance Competition

No. of Years in Participating Cheer Dance Competition	Scheffés Test	(F.05)(K-1)	Interpretation
1 vs 2	9.50	9.45	Significant
1 vs 3	9.53	9.45	Significant
1 vs 4	9.51	9.45	Significant
2 vs 3	2.25	9.45	Not Significant
2 vs 4	1.32	9.45	Not Significant
3 vs 4	2.56	9.45	Not Significant

To determine which number of playing years differs significantly, table 27 shows the comparison of the no. of playing years and based on the table there is significant difference between athletes having 1 and 2 years, 1 and 3 years and 1 and 4 years of performing in the UAAP, while athletes having 2 and 3 years, 2 and 4 years and 3 and 4 years of performing in the UAAP don't have any significant difference.

4. Implication of the Findings

Among the important findings of this research were: Most of the players and cheer dancers are in the age of 18 to 20. However least of them are in age of 24 to 26. In every sport event there is an equal number of players in male and female category however in cheer dance event there are more females than males. Next, table tennis players had the high level of mental toughness. However the rest got only moderate level. Badminton and table tennis got the high level of anxiety while the rest got average level. Cheer dancers have a moderate level of mental toughness. 88% of FEU cheer dancers had an average level of sport competition anxiety and 12% of the cheer dancers had a high level of sport completion anxiety. There is a significant difference on the mental toughness of FEU athletes in relation to their sport performance in UAAP 75th season games in terms of age. There is a significant difference on the mental toughness of FEU athletes in relation to their sport performance in UAAP 75th season games in terms of gender. There is a significant difference on the mental toughness of FEU athletes in relation to their sport performance in UAAP 75th season games in terms of no. of playing years. There is no significant difference on the sport competition anxiety of FEU athletes in relation to their sport performance in UAAP 75th season games in terms of age. There is no significant difference on the sport competition anxiety of FEU athletes in relation to their sport performance in UAAP 75th season games in terms of gender. There is no significant difference on the sport competition anxiety of FEU athletes in relation to their sport performance in UAAP 75th season games in terms of number of playing years. There is a significant difference on the mental toughness of FEU cheer dancers in relation to their dance performance in UAAP 75th season games in terms of age. There is a significant difference on the sport competition anxiety of FEU athletes in relation to their dance performance in UAAP 75th season games in terms of gender. There is a significant difference on the sport competition anxiety of FEU cheer dancers in relation to their dance performance in UAAP 75th season games in terms of UAAP years performing. There is a significant difference on the sport competition anxiety of FEU cheer dancers in relation to their dance performance in UAAP 75th season games in terms of age. There is a significant difference on the sport competition anxiety of FEU cheer dancers in relation to their dance performance in UAAP 75th season games in terms of gender. There is a significant difference on the sport competition anxiety of FEU cheer dancers in relation to their dance performance in UAAP 75th season games in terms of number of years participating in the UAAP.

5. Conclusions and Recommendations

Based on the foregoing findings, the following conclusions were drawn: Most of the respondents were only in first year of UAAP with the total of 38%. Athletes of badminton, taekwondo and beach volleyball have moderate level of mental toughness while table tennis players had a high level of mental toughness. These means the standard level of self-confidence, motivation to execute their skills, make critical decisions, perform under pressure, execute successful strategy, to concentrate, adaptation to game situation, achieve goals, to be successful, being analytical, meet challenge, being consistent, and ability to recover from performing poorly. Most of the athletes have an average level of sport competition anxiety. Cheer dancers had moderate level of mental toughness, this means that they have the standard level of self-confidence, motivation to execute their skills, make

critical decisions, perform under pressure, execute successful strategy, to concentrate, adaptation to game situation, achieve goals, to be successful, being analytical, meet challenge, being consistent, and ability to recover from performing poorly. Most of the cheer dancers have average level of sport competition anxiety. These means that they are all feel uncomfortable, pressured and fear if they really achieved the goal they are aiming for, during the actual competition. There is a significant difference on mental toughness of FEU athletes in relation of their sport performance in UAAP 75th season in terms of age, gender and no. of playing years in UAAP/ experience. The higher the age and the more years the experience they have the more the mental toughness they are more mature compared to the new and young athletes and male have more mental toughness than female. The hypothesis is rejected. There is no significant difference on the sport competition anxiety of FEU athletes in relation of their sport performance in UAAP 75th season games in terms of age, gender and number of UAAP playing years. Therefore, it fails to reject the hypothesis.

There is a significant difference on the mental toughness of FEU cheer dancers in relation of their performance in UAAP 75th season in terms of age, gender and no. of years participating in UAAP cheer dance competition. Therefore, it fails to reject the hypothesis. There is a significant difference on the sport competition anxiety of FEU Cheer dancers in relation of their performance in UAAP 75th season in terms of age, gender and number of years participating in UAAP cheer dance competition. Therefore, it fails to reject the hypothesis.

In the light of the conclusions drawn from the study, the following are hereby recommended: Identifying the weaknesses of athletic performance is an important step toward overall improvement of the athletes. Sport event that have high level of mental toughness and have low level of sport competition anxiety must be maintained and even find ways to further improve them. The Athletic department must also provide seminar and workshop to coaches regarding the importance and implementation of mental and psychological training.

Mental training should be structured and will be included in the athlete's training program. Researcher recommends to the respondents who have a moderate level of mental toughness to apply some mental training skills and psychological skills such as: keeping winning perspectives, team building and time management/ organization strategies. Researcher recommends to the respondents who have a high level of sport competition anxiety to apply some mental training skills and psychological skills such as: progressive muscular relaxation, five breathing techniques and strategies of overcoming the "Choke". To increase the level of mental toughness, the following mental training skills and psychological skills: Attitude, Goals and Commitment Self Talk. To decrease the level of anxiety, the following mental training skills and psychological skills: Motivation, People Skills, Dealing Effectively with Anxiety Dealing Effectively with Emotions.

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