

Pre-Competition Anxiety Levels among Malaysian High-Performance Athletes

Wan Ahmad Munsif Wan Pa^a, Norlena Salamuddin^{b*}, Noraziah Mohamad Zin^c, ^{a,b}Faculty of Education, Universiti Kebangsaan Malaysia, 43600 UKM Bangi, Selangor, Malaysia, ^cFaculty of Health Science, Universiti Kebangsaan Malaysia, Jalan Raja Muda Abdul Aziz, 50300 Kuala Lumpur, Malaysia, Email : ^{b*} lena@ukm.edu.my

A total of 98 high performance athletes (65 males and 33 females) compete in different type of sports at Majlis Sukan Universiti Malaysia (MASUM) 2019 and volunteered to participate in this study to compare their pre-competition anxiety levels. This research was conducted using the data collection survey technique and the instrument of Competitive State Anxiety Inventory-2 (CSAI-2) by Martens, Burton, Vealey, Bump, & Smith (1990) was adopted to measure the pre-competition anxiety levels of the respondents. This instrument consisted of 3 components which is cognitive anxiety, somatic anxiety and self-confidence. The result of Cronbach's Alpha (reliability test) is 0.709. There was a significant difference between gender for self-confidence $t(66.106) = 2.772$ and $p = .007$ ($p < 0.05$). Results showed that male athletes have a higher self-confidence ($M = 2.54$) compared to female athletes ($M = 2.21$). With the findings of the study, we can say that gender has an effect on self-confidence in high performance athletes.

Key words: *Pre-competition anxiety, sports psychology, athletes.*

Introduction

Sport is an institutionalised (legalised and enforceable) activity, is competitive, and involves the complex use of energy and physical skills (Matthew J. Mitten et al. 2016). One's involvement is driven by the internal satisfaction associated with external rewards gained through the activities carried out (Pilgrimage 2007). Many studies involving sports are viewed from different domains such as sports management, sports education, sports psychology and recreation. According to Miftakhul Jannah, Ninna Rohmawati and Sulistiyani

(2015) in Indonesia, sports psychology is one of the branches of psychological discipline that plays an important role in improving athletic performance and is widely discussed amongst sportsmen, coaches, team leaders and athletes.

The incidence of illnesses among people today is associated with unhealthy lifestyles such as lack of exercise, smoking, eating disorders and drug abuse. According to Pa, Salamuddin, Zin, and Bakar (2019), this may be due to a lack of emphasis on psychosocial aspects and health promotion. Athletes often have anxiety issues before the game. This is due to physical problems, fear of defeat, feelings of inadequacy, loss of control and guilt (Athan, A. N. & Sampson, U. I. 2013). This is also supported by Hardy et al. (1991) that pre-competition anxiety is one of the most unpleasant or negative awakenings felt the day before a competition begins. Cox (1990) further stated that anxiety before a competition is the feeling that athletes experience for a week, several hours or minutes before a competition begins.

Research Background

There are two types of anxiety, namely, state anxiety and trait anxiety (Cox R. H. 2002 in Jamilah, Sarina & Abdul. 2013). Anxiety according to Cox R. H. (2002), involves anxiety, depression, fear and increases the level of physiological arousal, which results from rapid emotional stimulation in certain situations. Stressful anxiety consists of somatic and cognitive anxiety (Cox R. H. 2002; Jarvis 2002; Anshel 2013). Somatic anxiety is associated with biological symptoms such as nausea, tension, shortness of breath, muscle tension, sweaty palms, increment of heart rate and dry throat (Cox R. H. 2002; Le Unes and Nation 2002).

Anxiety in sport is a big problem for many athletes. The justification is, the better you become, the higher the level of competition, the more anxiety you experience. Anxiety can have an adverse effect on an athlete's performance. No matter how much talent or skill he has, he won't do his best if he lives in fear before every event (Athan, A. N. & Sampson, U. I. 2013). The impact of significant stress on sports performance depends on how you interpret your world. In today's world, almost every concern about human effort is considered to be affected by anxiety. Thus, this study will identify the level of pre-competition anxiety before athletes jump into competition.

Problem Statement

Pressure was increased due to the importance of the competition they are dealing with (Nelfianty et al. 2017). When anxiety is experienced before a competition \, the situation leads to poor performance and a failure to perform at their best in the competition (Christian Lee Way, 2015). Moreover, the higher the level of uncertainty about the athlete's perception of his or her performance, the higher the level of anxiety and stress (Robert S. Weinberg &

Daniel Goud, 2011). According to empirical findings from Omar-Fauzee et al. (2014), there is a significance difference between Indonesia's athlete and Malaysia's athlete for components: facing challenges, focusing, mental preparation, goal orientation, performing under pressure and free from worry. Athletes from Indonesia score highly only on free from worry's component, compared to athletes from Malaysia that score high on the other component. Thus, this finding shows that athletes from Indonesia do not worry about their performance and do not care about others' perception regarding their performance. This sign clearly shows that Malaysian athletes need some solutions to overcome their psychological issues to perform at their best.

According to Vellapandian (2016), the problem of anxiety is due to the mind of the athlete himself thinking of things beyond control such as the expectations set by the association or organisation, the supporters, and if the athlete is prepared, they will surely worry and consequently affect performance. When an athlete is in a state of anxiety, their ability to perform movements will be impaired and not at their optimum level, and will strive to mimic any other athlete's motor skills or movements during competition (Mullen & Hardy, 2000). Athletes needs to know the level of anxiety before considering any actions that might be worse. This is an important reason as to why this study should be conducted, specifically amongst high performance athletes that have a clear mission, such as, to win in every match.

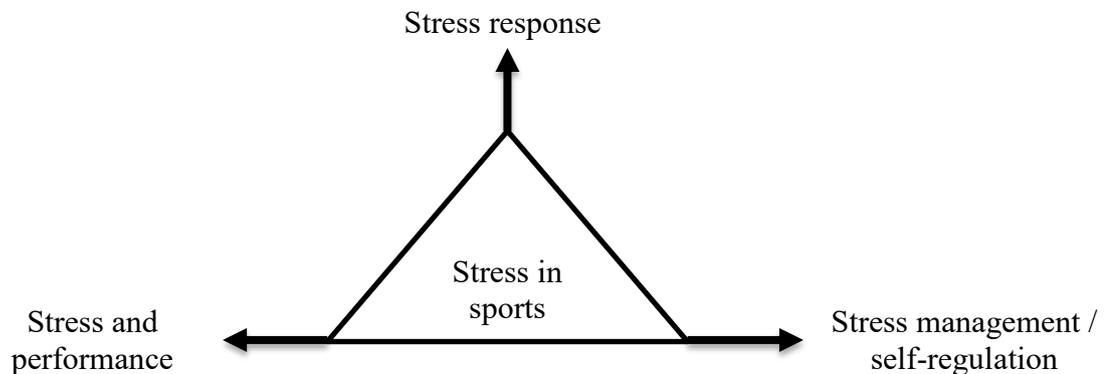
Research Objective

There are three (3) specific objectives found in this study:

1. To identify the level of pre-competition anxiety among high performance athletes.
2. To identify the difference of pre-competition anxiety (cognitive anxiety, somatic anxiety and self-confidence) among high performance athletes in terms of gender.
3. To suggest new ideas in coping with pre-competition anxiety.

Literature Review

There are a lot of factors which can cause stress for an athlete. For example, the perception of others, the importance of the tournaments, lack of training, lack of rest and recovery. The concept of stress explained by Graham-Jones & Hardy (1990) through the model of stress in sports is shown below:



Stress Model, Graham-Jones & Hardy (1990), adopted from Carly M. Fullerton. 2013.

Multidimensional Theory of Anxiety had been founded by Burton in year 1988. This theory expands from the idea of Inverted U hypothesis theory (cognitive and physiological factor). Multidimensional Theory of Anxiety already been used to produce several inventories to measure the characteristics of multidimensional state and trait anxiety. Multidimensional anxiety's aspect concluded into three widely concepts that are cognitive anxiety, self-confidence and somatic anxiety. Cognitive anxiety is a mental component that is caused by fear towards negative self-measurement and a threat to one's self dignity. Self-confidence is the relationship between the perception of confidence and the outcome of an individual's performance. Somatic anxiety is related to the physiological aspect for environment anxiety that links directly towards physiological arousal (Martens et al. 1990). Responses from physiological aspects such as an increase of heart rate, increased rate of breathing, palm of hand becoming sweat, uncomfortable feeling in the stomach and muscle tension. Thus, Multidimensional Theory of Anxiety will be the fundamental theory in this study in order to determine the pre-competition anxiety among Malaysian high-performance tennis players.

According to Nelfianty et al. (2017), there are two important factors that affect an individual's anxiety. The first factor is situation, divided into two categories which is the importance of competition and an inconsistent outcome. The importance of competition is defined as, the more important a match becomes, the higher the anxiety faced by the athletes. The level of anxiety seems higher when it comes to the final round compared to first round of the competition. Meanwhile, the explanation of an inconsistent outcome is when the session (selection of the athletes), the level of anxiety is higher for the athletes that is uncertain prior to the selection session compared to the athletes that are already confirmed to be part of the competition or team. For example, selection of new members for the national football team or selection for new national badminton player. Second factor that leads to anxiety is the individual factor. This factor also consists of two sub-components which is self-efficacy and

apprehension of the physical structure. Self-efficacy refers to the athletes who have less trust on themselves that will lead to greater anxiety to learn skills compare to athletes that have greater self-confidence. Apprehensive of physical structure refers to athletes that worry about their physical structure or appearance are faced with anxiety during competition because they thinking about others perceptions of their physical looks (Nelfianty et al. 2017).

Vincent Parnabas (2015), stated that male athletes obtained the lowest score on competitive state anxiety, $t(32.1169)$, $p < 0.01$ while female athletes exhibited the lowest level of sport performance, $t(32.949)$, $p < 0.01$. According to Arous Ichraf et al. (2013) males express more somatic anxiety and self-confidence than females with the exception of cognitive anxiety where females have more cognitive anxiety than males. Farooq Hussain, Amir Zaman and Muhammad Idris (2014), showed there was no significant difference in cognitive anxiety & self-confidences and significant difference in somatic anxiety levels among male and female collegiate athletes. While the three sub-scale (cognitive anxiety, somatic anxiety and self-confidence) were not significant in athletes of team and individual games. In opposite results, girls identified themselves as more relaxed than boys. Apparently, competitiveness and aggressiveness are aspects that are not high in girls' hierarchy (Evangelos Bebetos and Panagiotis Antoniou. 2012).

Methodology

The design of this study is quantitative study using a survey method. The survey method is suitable for this study because the questionnaire can be given to the respondents (Robert, Spink & Pemberton, 1999) to obtain information about their pre-competition anxiety amongst high performance athletes that compete in Majlis Sukan Universiti Malaysia (MASUM) 2019 at Universiti Malaysia Pahang (UMP). The sampling method used by the researcher is simple random sampling (randomised in the target group). This is because researchers are focusing on individuals or teams that participate in this particular tournament. The sampling size was 98, including men and women. Table 1 displays the number of respondents according to the selected sports:

Table 1: Number of respondents according to random sports.

Type of sports	Number of respondent (athlete)		Total
	Male	Female	
Football	16	-	16
Taekwondo	4	6	10
Volleyball	10	10	20
Netball	-	12	12
Silat Sports	7	5	12
Rugby	28	-	28

Total	65	33	98
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The instrument for this study is adopted from The Competitive State Anxiety Inventory – 2 (CSAI-2) questionnaire produced by (Martens, Burton, Vealey, Bump, & Smith, 1990). It consists of 27 questions to be answered by the respondents. This instrument assesses 3 components, that is, cognitive anxiety, somatic anxiety and self-confidence in athlete performance. To score the CSAI-2, take all the scores for each item at face value with the exception of item 14 only, where you ‘reverse’ the score. For example, if you circled 3, count that as 2 points (1 = 4; 2 = 3; 3 = 2; 4 = 1). Total your scores according to the following manner (Table 2). Table 3 was the scoring scale for each component and overall component. Table 4 shows the specification of measurements and data analysing procedures.

Table 2: Sum all scores according to selected items.

Component	Items
Cognitive anxiety	1, 4, 7, 10, 13, 16, 19, 22, and 25.
Somatic anxiety	2, 5, 8, 11, 14, 17, 20, 23 and 26.
Self-confidence	3, 6, 9, 12, 15, 18, 21, 24, and 27.

Table 3: scoring scale.

Level of pre-competition anxiety	For each component	Overall component
Low	9-18	27-54
Medium	19-26	55-81
High	27-36	82-108

Table 4: Specification of measurements and analyzing.

Part	Details of measurement	Number of items	Analysis
A	Demography	A1-A3	Descriptive statistics
B	CSAI-2	B1-B27	Independent T-Test
	*Cognitive anxiety	B1, B4, B7, B10, B13, B16, B19, B22, and B25.	Independent T-Test
	*Somatic anxiety	B2, B5, B8, B11, B14, B17, B20, B23, and B26.	
*Self Confidence	B3, B6, B9, B12, B15, B18, B21, B24, and B27.		

Findings

There are 65 (66.3%) male athletes and 33 (33.7%) female athletes who volunteered to participate in this study. The results of the Cronbach's Alpha (reliability test) $n=98$ is 0.709 for overall items in CSAI-2's instruments. This result shows that every item was validly answered by the respondents. Chart 1 shows that the level of competitive state anxiety (overall component) amongst respondents was 89.8% in medium scale. Table 5 show the output of an independent T-test.

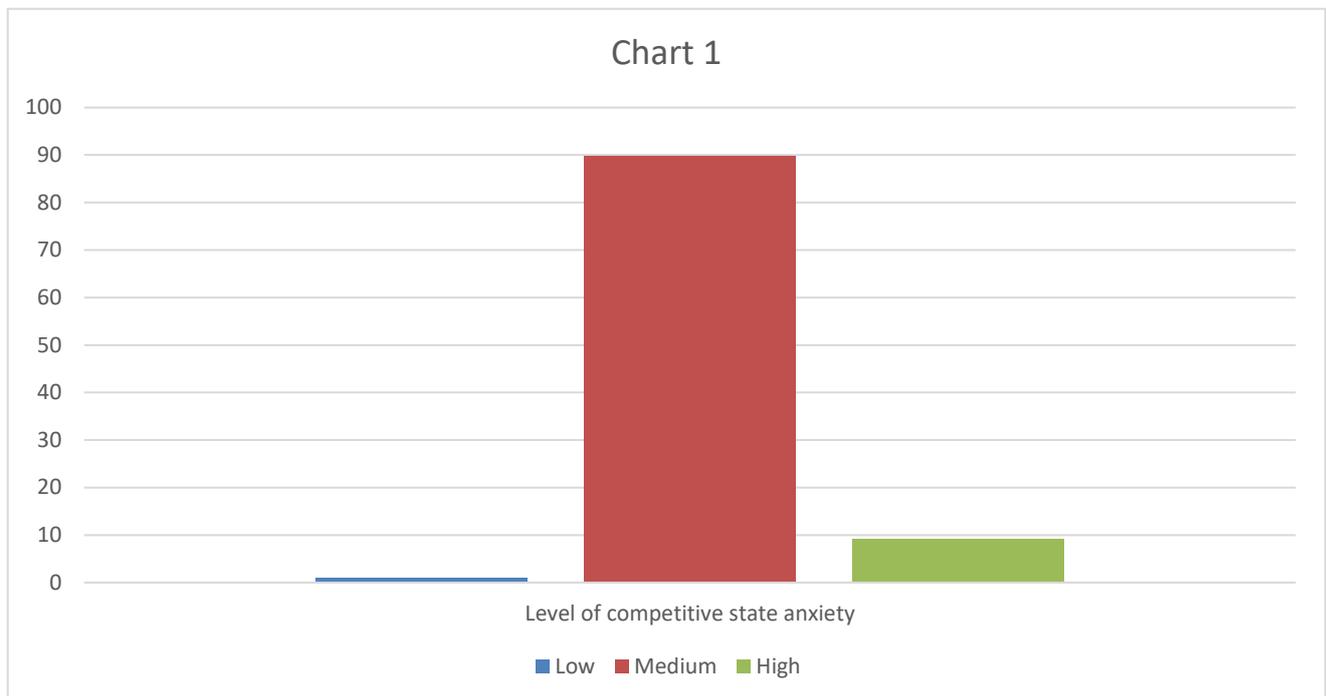


Table 5: output of independent T-test of competitive anxiety in term of gender.

Level of Competitive State Anxiety	Gender	N	Mean	Std Deviation	t	df	Sig.
Cognitive anxiety	Male	65	2.3692	.57471	.042	57.674	.967
	Female	33	2.3636	.65279			
Somatic anxiety	Male	65	1.6308	.51748	1.559	58.000	.124
	Female	33	1.8182	.58387			
Self-confidence	Male	65	2.5385	.56116	2.772	66.106	.007
	Female	33	2.2121	.54530			

According to the result of an Independent Sample T-Test, (Table 5), there was no significant difference between gender for cognitive anxiety $t(57.674) = .042$, $p = .967$ ($p > 0.05$) and somatic anxiety $t(58.000) = 1.559$ $p = .124$ ($p > 0.05$). This shows that male and female

athletes have the same level of competitive state anxiety. Thus, the null hypothesis was failed to reject for both components. Meanwhile, there was a significant difference between gender for self-confidence $t(66.106) = 2.772, p = .007 (p < 0.05)$. Results showed that male athletes have a higher self-confidence ($M = 2.54$) compared to female athletes ($M = 2.21$). Thus, the null hypothesis was rejected for this component.

Discussion

The result showed that gender has an effect, specifically on self confidence in high performance athletes. This is supported by previous researcher Arous Ichraf et al. (2013) who stated that male athletes promote higher self-confidence than female athletes. Female athletes require more intention in term of self-confidence to perform better in their competition. Confidence in sport is a volatile and ephemeral state, and it is vital for athletes to feel confident in and remain confident throughout competitions. Thus, confidence in sport is a key variable when it comes to athletes' performance and experience in sports (Koehn, Pearce, and Morris. 2013).

According to Athan, A. N. & Sampson, U. I. (2013), there are several ideas or techniques in order to overcome the pre-competition anxiety among athletes: visualisation, goal setting, relaxation techniques, diaphragmatic breathing, progressive muscle relaxation, develop self-confidence, distract yourself, focus on that which you can control.

Conclusion

In enhancing the level of sports performance based on mental preparation prior to the actual match, existing knowledge, tactical and technical skills as well as effective training programs are important factors in producing high performance athletes in Malaysia. As a result, new ideas, new technologies and new methods of training have been developed to meet the changing demands of the times.

Researchers find it is very important to conduct research on the mental state of high-performance athletes to perform at international or national championships. We believe that further studies with a larger scale group, based on monthly income and level of education are needed to determine the effect of gender on pre-competitive anxiety. Furthermore, each coach, athlete and researchers will have new information about the pre-competition anxiety levels and will prepare to take the suitable method to overcome anxiety and increase performance.



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