

A meta-analysis of different from competitive state anxiety between the Vietnamese's Athletes of Futsal and Cycling team

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Abstract

The purpose of this study was to compare between the selected sports (Futsal and Cycling) athlete performance with the help of multidimensional Theory Questionnaire (Competitive State Anxiety questionnaire). The results indicated that there were significant differences with cognitive anxiety and self-confidence of Futsal and Cycling sports athlete's. The outcome of study might help physical educators and coaches to evaluate and modify their training programs pertaining to the state anxiety of performers.

Keywords: CSAI-2, Futsal, Cycling, Athlete, Vietnam

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INTRODUCTION

Sports psychology research is a large and rapidly growing field in developed countries. An important aspect of sporting events is the preparation for athletes to be mentally fit, showing themselves well under the pressure of the game. Depending on how athletes perceive their opponents, they can explain the competitive pressures in a variety of ways. For example, they may view this status as a natural part of a sporting event, or they may call this a high level of stress or anxiety.

Anxiety is a concept that is widely discussed by scientist and coaches. Practitioners involved in sports performance need to be aware of anxiety related symptoms. Once awareness is built it would be prudent to deal with anxiety related issues. In sports, competition can be considered a source of threats as the athlete's image is usually associated with his or her performance, the final result is always uncertain, there is exposure to public opinion and judgement by third parties.

Not all sports competition tension is bad, not all of the athletes who have anxiety state. Before the tension can be viewed as the positive or negative performance. There are two distinct aspects of anxiety. One aspect emanates towards trait anxiety. Trait anxiety relates to innate characteristics that humans are born with. For example, having a tendency to throw up before important competition. A second form of anxiety is related to the state, which is situational specific. For example, a performer may feel anxious when free-throwing in basketball. Related to these aspects there are also two mechanisms that are identified as somatic (physical feelings) and cognitive (mental) anxiety. Performers can suffer with both types of mechanisms or predominately from one over the other.

Weinberg (1979) [11] argues that before the game, athletes have a somatic anxiety and cognitive anxiety. Common symptoms of somatic anxiety include, experiencing butterflies, sweating, heavy breathing or an elevated heart rate. Common symptoms of cognitive anxiety include negative thoughts, feelings of apprehension or nervousness.

This state may appear more during play, and cause the athlete to be tense due to tournament pressures or negative issues of the game. According to Nideffer's forecasting process, the pressure of pressure will affect the ability to concentrate, thus affecting the outcome of the game (Nideffer, 1993) [8]. However, some studies have shown that anxiety is not always a problem. In an effort to develop effective interventions that will help to improve the negative and sometimes adverse experiences for athletes. Sports psychologists began to study anxiety, first as an independent study followed by a series of related studies (Jones, 1995; Krane, 1992; Scanlan & Passer, 1978; Simon & Martens, 1977) [4]. Up to the present time, there have been more than 20 published scales related to this topic, but the CSAI-2 (Martens, Burton, Vealey, Bump y Smith, 1990) [6] is well known and widely used.

Burton (1988) [12] was one of the first to use the CSAI-2 on a sample of elite athletes. He asked two samples of elite level swimmers to complete the CSAI-2 just prior to competition. The performance outcome for this study was the swimmers' times, which were obtained from the swim-meet results. His study is considered to be a landmark study, not only for its investigation of the reliability of the CSAI-2 (in terms of stability and consistency) but also for providing evidence for the theoretical

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underpinnings of the multidimensional theory. As noted by Smith (1989), however, Burton's findings should be interpreted with caution, as there may have been a different conclusion from the regression analyses if Burton had entered the variables differently into the stepwise regression analyses.

In Vietnam, the psychological research of athletes is very concerned, but they are not really developed yet. Comparative study of pre-competition psychological state of bicycle athletes and futsal within the Cycling Championship and the Futsal Cup (2018) in the Vietnam is one of the first steps that the author approaches about field of athlete psychological research.

METHOD

Participants

Includes 115 male athletes from two sports (Cycling and Futsal). The survey was conducted in the Cycling and Futsal Cup Championship (2018). At the time of the survey, 20 to 45 minutes before the start of the competition, all survey participants were seated in a closed and quiet room to concentrate on the test.

Measures

This scale is called the Competitive State Anxiety Inventory-2 (CSAI-2), a sport-specific state anxiety scale developed by Martens, Vealey, and Burton (1990)[6]. The scale divides anxiety into three components: cognitive anxiety, somatic anxiety, and a related component-self-confidence. Self-confidence tends to be the opposite of cognitive anxiety and is another important factor in managing stress. To score the CSAI-2, take all the scores for each item at face value with the exception of item 14, where you "reverse" the score.

For example, if circled 3, count that as 2 points (1 = 4; 2 = 3; 3 = 2; 4 = 1). Total your scores in the following manner:

- Cognitive state anxiety: Sum items 1, 4, 7, 10, 13, 16, 19, 22, and 25.
- Somatic state anxiety: Sum items 2, 5, 8, 11, 14, 17, 20, 23, 26.
- Self-confidence: Sum items 3, 6, 9, 12, 15, 18, 21, 24, and 27. Scores for each will range from 9 to 36, with 9 indicating low anxiety (confidence) and 36 indicating high anxiety confidence.

Analytical methods

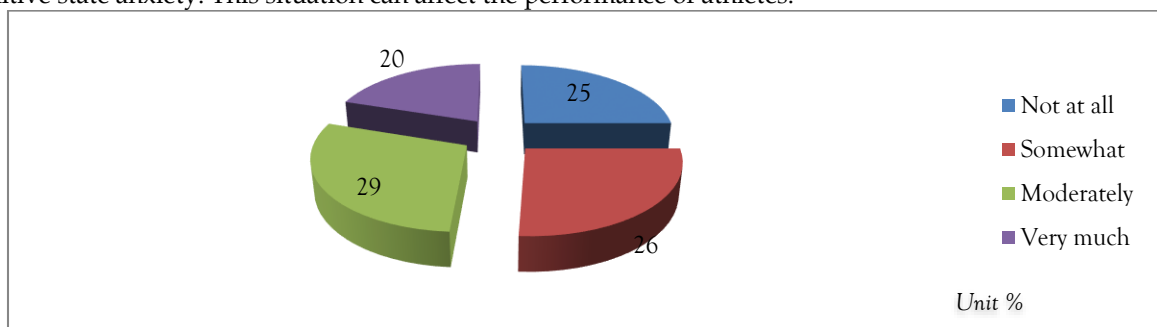
The research method uses the following methods: Literature reviews; sociological survey methods and statistical methods. Two independent t-tests were used to examine differences in anxiety status between the two groups of athletes prior to competition with SPSS software version 22.0.

RESULT

Descriptive Analysis of CSAI-2 of Vietnam Cycling team

The interview results show that most athletes display cognitive state anxiety on a Moderately so. Somewhat accounts for 10 percent 26% and very much is 20%.

It can be seen that, with high level, the level of training is very good, but before the game, there are still a Somatic state anxiety and cognitive state anxiety. This situation can affect the performance of athletes.

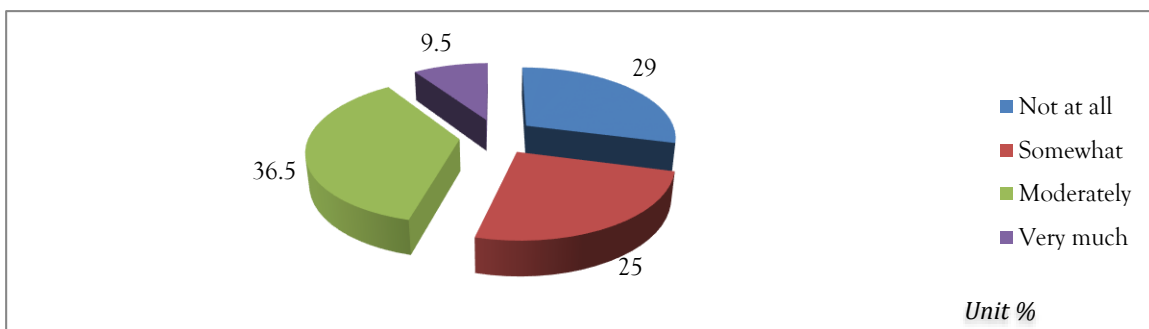


Cognitive state anxiety before the competition of Cycling team

The number of athletes with somatic state anxiety is lower than the number of athletes feeling cognitive state anxiety. Up to 36.5% of athletes are affected by this condition at regular intervals. 25% had moderately of somatic state anxiety.

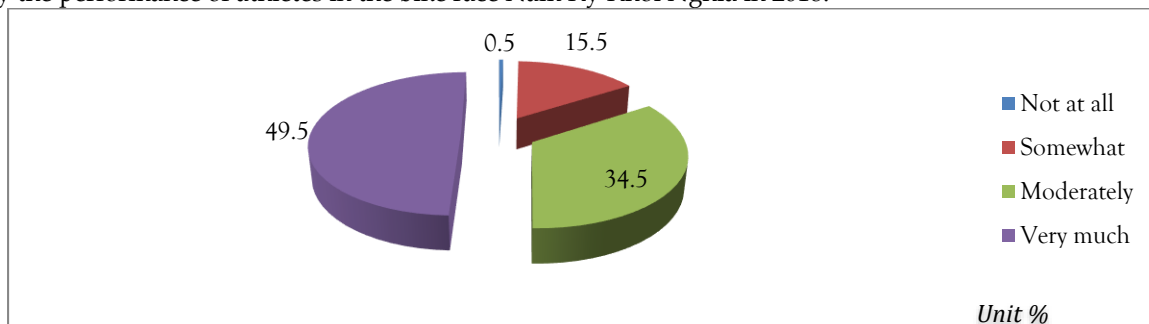
However, only 9.5% of athletes are affected by this condition at a very much.

It can be seen that the anxiety disorder of unregulated athletes leads to this phenomenon. It can be seen that the anxiety disorder of unregulated athletes leads to this phenomenon. The CSAI-2 test showed that the symptoms of anxiety disorder were present in different teams at different levels.



Somatic state anxiety before the competition of Cycling team

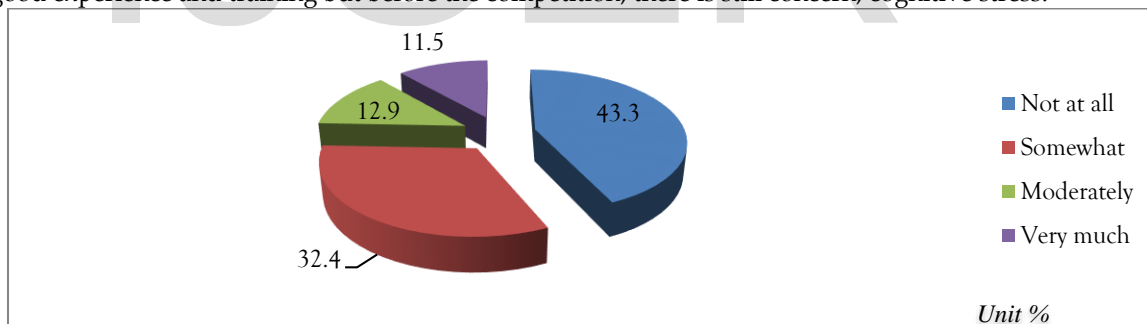
Most of the athletes have confidence before the competition at the highest level of 49.5%. Moderately of confidence accounted for 34.5%. Not at all confidence only 0.5%. It can be seen that the Vietnamese cyclist is fully self-confident. This result has been proved by the performance of athletes in the bike race Nam Ky Khoi Nghia in 2018.



Self-confidence before the competition of Cycling team

Descriptive Analysis of CSAI-2 of Vietnam Futsal team

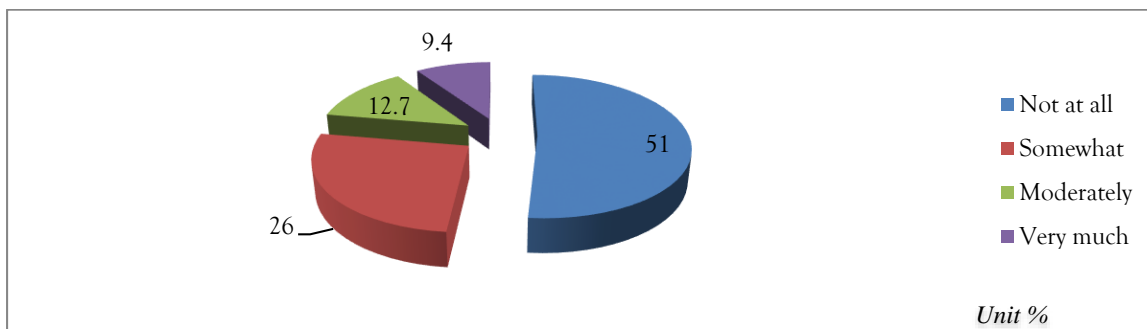
The interview results show that 43.3% of respondents selected the level “not at all” anxious for the content mentioned. In subsequent placement, the occasional anxiety level was 32.4%. The content of respondents at the level of anxiety is very much accounted for the lowest rate of 11.5%. Can be seen, the athletes from the six teams competing in the 2018 Futsal Cup are highly rated athletes with good experience and training but before the competition, there is still concern, cognitive stress.



Cognitive state anxiety before the competition of Futsal team

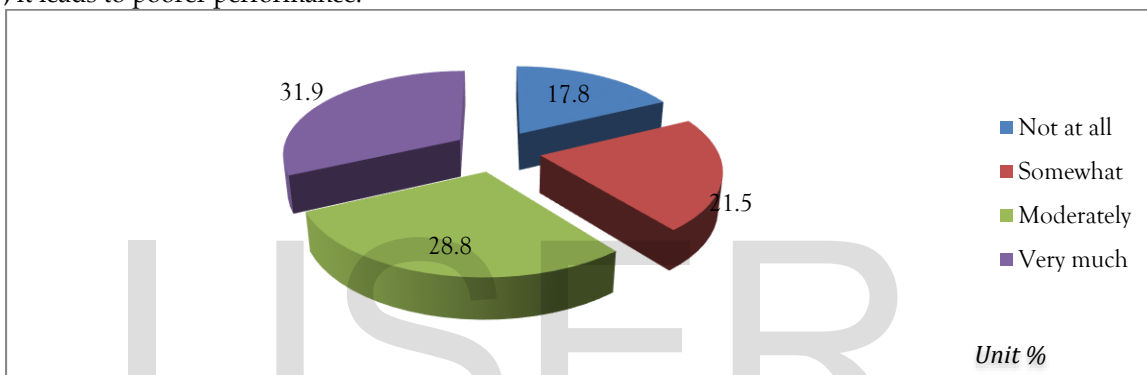
The interview results show that up to 51% of the respondents were selected for the level Never felt anxious for the content mentioned. In the next place, the occasional choice of anxiety level accounted for 26%. The content of respondents at the level of anxiety was very low, accounting for 9.4%.

Athletes with high cognitive anxiety will be accompanied by a tendency for somatic anxiety. And vice versa, this status may appear more often when athletes start competing, and cause the athlete to be tense due to tournament pressures or negative issues of the game. Several studies have demonstrated the relationship between anxiety and competitive performance (Weinberg, 1979); According to Nideffer's prediction process, anxiety affects the ability to concentrate, thus affecting the outcome of the game (Nideffer, 1993). However, some studies have shown that anxiety is not always a problem.



Somatic state anxiety before the competition of Futsal team

Frequent selection and confidence were high for content in this component occupied a high position with 31.9% and 28.8%. In addition, the status is never confident and sometimes also quite high with 17.8% and 21.5% respectively. Some studies (Gould & Krane, 1992; Jones, 1995; Krane, 1992; Yerkes & Dodson, 1908) demonstrate the relationship between confidence and athletic performance. Moderate level of confidence will result in better athletic performance. When the level of self-confidence is too high or too low, it leads to poorer performance.



Self-confidence before the competition of Futsal team

Descriptive analysis of CSAI-2 variables of Cycling and Futsal

The results of the pre-match psychological analysis of athletes in two groups of subjects showed that, the athlete's anxiety level is higher than that of Futsal athletes. However, in terms of confidence, Futsal athletes are lower than cyclists.

Table 1
Descriptive Analysis of CSAI-2 Variables of Cycling and Futsal

	Cycling (n = 20)		Futsal (n = 95)	
	Mean	Std. Deviation	Mean	Std. Deviation
Cognitive state anxiety	21.95	3.12	17.33	5.03
Somatic state anxiety	20.5	3.33	16.24	4.61
Self-confidence	30	2.29	24.74	5.19

Independent T-Test of CSAI-2 variables before the competition of cyclists and Futsal athletes in Vietnam by t-test method showed a statistically significant difference for the state of cognitive state anxiety and the Self-confidence between the two groups (t = 0.01 and 0.00 < 0.005).

Table 2
Independent t-test of CSAI-2 variables of different sports

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Cognitive state anxiety	5.090	.026	3.924	113	.000	4.62368	1.17825	.000	4.62368
Somatic state anxiety			5.317	43.193	.001	4.62368	.86962	.000	4.62368
Self-confidence	2.444	.121	3.899	113	.060	4.25789	1.09204	.000	4.25789
Cognitive state anxiety			4.818	36.370	.000	4.25789	.88372	.000	4.25789
Somatic state anxiety	10.587	.002	4.409	113	.000	5.26316	1.19374	.000	5.26316
			7.098	66.904	.000	5.26316	.74154	.000	5.26316

DISCUSSION

The findings of this study the researcher evidence the comparison between futsal and cycling player's state anxiety symptoms. According to skills measurements the researcher understanding the anxiety levels of futsal and cycling athlete's performance which effects their self-confidence during competition.

The descriptive statistics and independent sample 't'- test were computed to understand the anxiety level of athlete's. The result of the present study (A meta-analysis of different between the Futsal and Cycling of competitive state anxiety) depicted that significant difference was found between Futsal and Cycling athlete's sports performance with value Cognitive state anxiety respectively 17.33 and 21.95; Somatic state anxiety are 16.24 and 20.05. The depicted tabulated value shows there are significance differences between both sports athletes at state anxiety level cognitive state anxiety, somatic state anxiety, and self-confidence.

CONCLUSION

Research shows that Futsal and Cycling appear anxious before competition. There were statistically significant differences between the two groups of anxiety and self-confidence among the two groups of athletes. According to the author, this is one of the foundations of scientific significance to compare the state of play before the competition and the performance of the athletes. However, the author also recommends that in the future, the team should apply psychological therapies to improve the psychological capacity of athletes, in training and before the tournament.

REFERENCES

1. Arruza Gabilondo at all (2010), Validation of the Competitive State Anxiety Inventory 2 (CSAI-2 re) through a web application, *Revista Internacional de Medicina y Ciencias de la Actividad Física y el Deporte* vol. 12, pp. 539-556.
2. Bruce D. Hale (1991), *Competitive Anxiety in Sport*, vol.5 Issue.3 pp: 292-293.
3. Gould, D., Eklund, R. C., & Jackson, S. A. (1992). 1988 U. S. Olympic wrestling excellence: 1. Mental preparation, precompetitive cognition, and affect. *The Sport Psychologist*, vol. 6, Issue. 4, pp. 358-382.
4. Jones G. More (1995), Research developments and issues in competitive anxiety in sport, *British Journal of Psychology*, Vol.86, Issue. 4, pp 449-478.
5. Lynette L. Craft, T. Michelle Magyar, Betsy J. Beckerand Deborah L. Feltz (2003), The Relationship Between the Competitive State Anxiety Inventory-2 and Sport Performance: A Meta-Analysis, *Human Kinetics Journals*, Vol. 25 Issue.1, pp: 44-65
6. Martens R, Burton D, Vealey RS, Bump LA, Smith DE. Development and validation of the competitive state anxiety inventory-2 (CSAI-2). In R. Martens, R. S. Vealey, & D. Burton (Eds.). *Competitive anxiety in sport 1990*, 117-213. Champaign, IL: Human Kinetics.
7. Lê Nguyệt t Nga (2012), Giới thiệu u một số kết quả nghiên cứu về tâm lý củ a VĐV và đề xuất đị nh hướng nghiên cứu tâm lý họ c thể thao giai đọ a n 2012 - 2016, Vietnamese version. (Introducing the results on psychology of athletes and proposing orientations for research on sports psychology in the period of 2012 - 2016 in Vietnam)

8. Nideffer, R. M. (1993). Concentration and Attention Control Training. In J. M. Williams (Ed.), *Applied Sport Psychology: Personal Growth to Peak Performance*, 243-261.
9. Peter Hassmén (2005), Competitive State Anxiety Inventory-2 (CSAI-2): Evaluating the Swedish version by confirmatory factor analyses. *Journal of Sports Sciences* , Vol.23, Issue.7, pp. 727-736.
10. <http://www.mrgillpe.com/>, Competitive State Anxiety Inventory-2 (CSAI-2)
11. Weinberg, R. S., Gould, D., & Jackson, A. (1979). Expectations and performance: An empirical test of Bandura's self-efficacy theory. *Journal of Sport Psychology*, 1(4), 320-331
12. Burton, D. (1988). Do anxious swimmers swim slower? Reexamining the elusive anxiety-performance relationship. *Journal of Sport & Exercise Psychology*, 10(1), 45-61

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