International Journal of Trend in Scientific Research and Development (IJTSRD)
Volume 4 Issue 4, June 2020 Available Online: www.ijtsrd.com e-ISSN: 2456 – 6470

Level of Cognitive and Somatic Anxiety on Badminton Competition

Vincent Parnabas[1], Julinamary Parnabas[2], Antoinette Mary Parnabas[3]

[1]Faculty of Sport Science and Recreation, Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia
[2]Institut Pendidikan Guru Kampus Darulaman Jitra, Kedah, Malaysia
[3]Medical Unit, Hospital Taiping, Taiping, Perak, Malaysia

ABSTRACT

Anxiety, as a negative emotional, affect perceptions in sport competitions, where a large majority of athletes consider anxiety to be debilitative towards performance, which may result in decreases in performance. The main purpose of this study was to examine the levels of anxiety of somatic and cognitive, before competition among badminton athletes. The instrument used for the study comprised of a 27-item Competitive State Anxiety Inventory–2. The sample consisted of 41 athletes, with categories of national, state, district and university athletes. The result showed the athletes representing their university exhibited higher cognitive and somatic anxiety levels than those in state and district categories, whereas national athletes showed the lowest level of cognitive and somatic anxiety. Sport psychologists, sport counselors and coaches should use the present findings to recommend coping strategies to university and district level athletes that are appropriate for dealing with their athletes' cognitive and somatic anxiety.

KEYWORDS: *Anxiety, Cognitive Anxiety, Somatic Anxiety*

How to cite this paper: Vincent Parnabas | Julinamary Parnabas | Antoinette Mary Parnabas "Level of Cognitive and Somatic Anxiety on Badminton Competition" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-4 | Issue-4, June 2020, pp.864-866, URL: www.ijtsrd.com/papers/ijtsrd31231.pdf

IJTSRD31231

INTRODUCTION

Anxiety, as a negative emotional, affect perceptions in sport competitions, where a large majority of athletes consider anxiety to be debilitative towards performance, which may result in decreases in performance (Weinberg & Gould, 2018; Raglin & Hanin, 2000). Hann (2000) found "sports psychologist have long believed that high levels of anxiety during competition are harmful, worsening performance and even leading to dropout."

The level of anxiety has the tendency to change during competition by becoming higher or lower (Weinberg 1989; Weinberg & Gould, 2018; Cashmore 2002; O'Neil & Abedi 1992; O'Neil, Baker & Matsura 1992) because the cognitive and somatic component changes according to the time and situation (Caruso, Dzewaltowski, Gill & McElroy 1990).

Researchers have reported that over 50 of consultations among athletes at an Olympic festival were related to stress or anxiety problems (Murphy, 1988). Many researches showed that winning in a competition depend on how an athlete can control their anxiety level (Humara, 2001). Anxiety consists of two subcomponents: cognitive and somatic anxiety, which influence performance (Martens, Vealey & Burton, 1990; Jarvis, 2002). The cognitive is the mental component, which characterized by negative expectations about success or self-evaluation, negative self-talk, worries about performance, images of failure, inability to concentrate, and disrupted attention (Martens, Vealey & Burton, 1990; Jarvis 2002). The somatic is the physiological element, which related to autonomic arousals, negative symptoms such as feelings of nervous, high blood pressure, dry throat, muscular tension, rapid heart rate, sweaty palms and butterflies in your stomach (Martens, Vealey & Burton, 1990; Jones, 2000; Jarvis, 2002).

Heavy playing schedules, competition for team places, the media and fans as well as the pressure to win trophies all play a part in players developing high stress and anxiety levels (Heather 2010). Research has indicated that most successful athletes using more positive coping strategies than less successful athletes (Orlick & Partington,1988**;** Gould, Eklund & Jackson, 1993). Many times athletes do not handle anxiety properly by not using coping strategies, which deteriorate their performance.

Most of the previous research, focused on elite athletes, while ignoring less successful athletes. This was confirmed by Krane (1995) that research on competitive anxiety mainly focused on elite athletes. The extant literature also shows that there is a limited research comparing on competitive anxiety among athletes of state, district and school level.

PURPOSE OF THE STUDY

The main purpose of this study was to examine the levels of anxiety of somatic and cognitive, before competition among badminton athletes.

Besides that, this research also determines the level of somatic and cognitive anxiety between different categories of athletes, which consists national, state, district and university level athletes. The higher level of achievement in sport declared as their category in sport.

METHODS

The participants of this study were recruited from University Teknologi MARA (UiTM). The instrument used for the study comprised of a 27-item Competitive State Anxiety Inventory–2, which had been distributed before competition to the student-athletes. The data was collected before competition. The sample consisted of 41 athletes, with national athletes (N=12), state athletes (N=12), district athletes (N=7), and university athletes (N= 10).

RESULT

Level of Cognitive Anxiety

Table 1 shows the mean scores for the cognitive anxiety among the athletes of different skills, $F(3, 41) = 17.312$, $p < .01$. Apparently, significant differences emerged for the athletes having different skills at competition. Overall, the mean score obtained for the national athletes was lower than those in other categories.

Table 1: Level of Cognitive Anxiety According to the Skills

Skills of Athletes	Mean	F-Value	P-Value
National	10.1710	17.312**	0.000
State	11.2167		
Distict	13.4410		
University	15.5100		

** p< .01

Level of Somatic Anxiety

Table 2 shows the mean scores for the cognitive anxiety among the athletes of different skills, $F(3, 41) = 21.4321$, $p < .01$. Apparently, significant differences emerged for the athletes having different skills at competition. Overall, the mean score obtained for the national athletes was lower than those in other categories.

Table 2: Level of Somatic Anxiety According to the Skills

Skills of Athletes	Mean	F-Value	P-Value
National	13.7712	21.4321**	0.000
State	15.4133		
Distict	22.1042		
University	24.4201		

** p< .01

DISSCUSSION

The result showed the athletes representing their university exhibited higher cognitive and somatic anxiety levels than those in state and district categories, whereas national athletes showed the lowest level of cognitive and somatic anxiety. In Malaysia, since lack of research involving the four categories of skills has been conducted so far, therefore this research has failed to compare these with the findings of previous research. However, many studies have shown that elite athletes exhibit the lowest level of cognitive and somatic anxiety (Loupos, Fotini, Barkoukis & Tsorbatzoudis 2008; Claudio & Laura 2003). Beside that a few research showed elite athletes used various kind of coping strategies and had a high self confidence which reduced their cognitive and somatic anxiety (Anshel 2011; Cox, 2011; Humara 2001; Weinberg & Gould, 2018).

CONCLUSION

The findings of the research determined that there are differences in the level of anxiety of cognitive and somatic anxiety, showed by different categories of Malaysian athletes. These differences were related to their level of skill. The results showed that elite or national athletes exhibited lower levels of somatic and cognitive anxiety than non-elite athletes. Low anxiety levels are very important in high sport performance.

Sport psychologists, sport counselors and coaches should use the present findings to recommend coping strategies to university and district level athletes that are appropriate for dealing with their athletes' cognitive and somatic anxiety.

References

[1] Anshel, M. H. 1991. Causes for drug abuse in sport: A survey of intercollegiate athletes. *Journal of Sport Behavior* 14: 283-307.

[2] Anshel, M. H. 2011. *Sport psychology: from theory to practice*. New York: Benjamin Cummings.

[3] Bacon, V. L. & Russell, P. J. 2004. Addiction and the college athlete: The Multiple Addictive

[4] Behaviors Questionnaire (MABQ) with college athletes. *Sport Journal* 7. (http://www.thesportjournal.org/2004Journal/Vol7-No2/BaconRussell.asp).

[5] Baumert, P. W., Henderson, J. M., & Thompson, N. J. (1998). Health risk behaviors of adolescent participants in organized sports. *Journal of Adolescent Health*, 22, 460-465.

[6] Cashmore, E. 2002. *Sport Psychology*. London: Routledge.

[7] Caruso, C. M., Dzewaltowski, D. A., Gill, D. L., & McElroy, M. A. 1990. Psychological and physiological changes in competitive state anxiety during noncompetitive and competitive success and failure. *Journal of Sport and Exercise Psychology* 12; 6-20.

[8] Claudio & Laura 2003. Intensity, idiosyncratic content and functional impact of performance-related emotions in athletes. Journal of Sports Sciences 21 (3): 171-189.

[9] Cox, R. H. 2011. Sport Psychology, concepts and applications (6th ed.). New York: McGraw-Hill.

[10] Duda, J.L. 1995. Level of competitive trait anxiety and sources of stress among members of the 1993 Top Team. *Technique* 16: 10-13.

[11] Duda, J.L. & Gano-Overway, L. 1996. Anxiety in elite young gymnasts. Part II – Sources of stress. Technique 16: 4-5.

[12] Gould, D., Finch, L.M. & Jackson, S. 1993. Coping strategies used by national champion figure skaters. *Research Quarterly for Exercise and Sport* 64: 453-468.

[13] Hann, Y. L. (2000). *Emotions in sports*. Champaign, Illinois: Human Kinetics.

[14] Heather B. 2010. Psychology: motivation, anxiety, confidence and goal setting. (http://www.soccernh.org/LinkClick.aspx?fileticket=z-jKZpam25k%3D&tabid=4766)

[15] Humphrey, J. H., Yow, D. A. & Bowden, W. W. (2000). *Stress in college athletics: Causes, consequences, coping. Binghamton*. NY: The Haworth Half-Court Press.

[16] Jarvis, M. 2002. *Sport Psychology*. New York: Routledge.

[17] Jones, G. 2000. Stress and anxiety. In S.J. Bull, *Sport Psychology: A self-help Guide* (p. 31-51). Ramsbury, Marlborough: Crowood.

[18] Klint, K.A., & Weiss, M.R. 1986. Dropping in and dropping out: Participation motives of current and former youth gymnasts. *Canadian Journal of Applied Sport Sciences* 11: 106-114.

[19] Lavallee, L. & Flint, F. 1996. The relationship of stress, competitive anxiety, mood state, and social support to athletic injury. *Journal of Athletic Training* 31: 296-299.

[20] Loupos, Fotini, Barkoukis & Tsorbatzoudis 2008. Psychological and Physiological Changes of Anxiety Prior a Swimming Competition. The Open Sports Medicine Journal 2: 41-46.

a. Lloyd, P. & Mayes, A. 1999. *Introduction to psychology: An integrated approach*. London: Diamond books.

[21] Martens, R., Vealey, R.S., & Burton, D. 1990. *Competitive Anxiety in Sport*. Champaign, Illinois: Human Kinetics.

[22] Montgomery, B., & Morris, L. 1994. *Living with anxiety.* Singapore: Heinemann Asia.

[23] Murphy, S. M. 1988. The on-site provision of sport psychology services at the 1987. U. S Olympic Festival. *The Sport Psychologist* 2: 105-130.

[24] O'Neil, H.F. & Abedi, J. 1992. Japanese children's trait and state worry and emotionality in a high-stakes testing environment. *Anxiety, Stress, and Coping* 5: 253-267.

[25] O'Neil, H.F., Baker, E.L. & Matsuura, S. 1992. Reliability and validity of Japanese trait and state worry and emotionality scales. *Anxiety, Stress, and Coping* 5: 225-239.

[26] Orlick, T., & Partington, J. 1988. Mental links to excellence. *The Sport Psychologist*, 2: 105-130.

[27] Payne, E. K. 2003. *Competitive anxiety and coping of female collegiate soccer goalkeepers*. A thesis presented to the faculty of the Human Performance, San Jose State University.

[28] Pragman, D. 1998. *Understanding sport psychology*. New Jersey: Prentice-Hall.

[29] Pritchard, M. E., Wilson, G., & Yamnitz, B. (2004). *What predicts adjustment among college students? A Longitudinal Panel Study*. Manuscript submitted for publication.

[30] Raglin, J.S. & Hanin, Y.L. 2000. Competitive anxiety. In Yuri, L.H., *Emotions in Sport* (p. 93-111). Champaign, IL: Human Kinetics.

[31] Rotella, R.J. 1984. Psychological care of the injured athlete. In L. Bunker, R.J. Rotella, and A.S. Reilly (Eds.) *Sport psychology: Psychological considerations in maximing sport performance* (p. 273-288). Ithaca, NY: Mouvement.

[32] Sewell, D., & Edmondson, A. 1996. Relationships between field position and pre-match competitive state anxiety in soccer an field hockey. *International Journal of Sport Psychology* 27: 159-172.

[33] Spielberger, C. D. 1966. *Anxiety and behavior*. New York: Academic Press.

[34] Weinberg, R. 1989. Anxiety, arousal, and motor performance: Theory, research, and applications. In Dieter Hackfort and Charles D. Spielberger, Anxiety in sports (p. 95-105). New York: Hemisphere.

[35] Weinberg, R.S. & Gould, D., 2011. *Foundations of Sport and Exercise Psychology*, 2nd ed. Champaign, IL: Human Kinetics.

[36] Weiss, M.R., Weise, D.M. & Klint, K.A. 1989. Head over heals with success: The relationship between self-efficacy and performance in competitive youth gymnastics. *Journal of Sport and Exercise Psychology* 11: 444-451.

[37] Wilson G, & Pritchard M. 2005. Comparing sources of stress in college student athletes and non-athletes. *Athletic Insight: Online J Sport Psych*. *2005;7* no pagination specified.