Level of Cognitive Anxiety on Beginners, Intermediate, Advanced and Professional Badminton Players

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ABSTRACT

Sports psychologists have long believed that high levels of cognitive anxiety during competition are harmful, worsening performance and even leading to dropout. The instrument used for the study comprised of a 27-item Competitive State Anxiety Inventory–2 which had been distributed to the athletes. The sample consisted of 51 Badminton players, comprise beginners (N=15), Intermediate (N=12), Advanced (N=13) and Professional (N= 11). The results showed that advanced and professional categories of Badminton players exhibited lower levels of cognitive anxiety. Sport psychologists, sport counselors and coaches should use the present findings to recommend coping strategies to beginners and intermediate types of badminton players for dealing with their cognitive anxiety.

Keyword: - *Cognitive1, Beginners2, Intermediate3, Advanced4 and Professional5*

1. 1. Introduction

Anxiety can be defined as a prolonged state of apprehension brought on by an uncertain or unpredictable prospective threat [1]. It is considered as a negative emotional, which affect perceptions in sport competitions. Furthermore, a large majority of athletes consider anxiety to be debilitative towards performance, which may result in decreases in performance [2, 3]. Anxiety consists of two subcomponents: cognitive and somatic anxiety, which influence performance [4, 5]. 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 [4, 5]. Contradictory, 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 [4, 5, 6].

According to [7] high levels of anxiety during competition are harmful, worsening performance and even leading to dropout. Therefore, it's very important to know the level of anxiety especially the cognitive anxiety in order to take all necessary preparation to reduce it. Catastrophe Model well described the relationship between cognitive anxiety and sport performance [8, 2, 9]. According to this theory, an achievement of best sport performance results

can obtain only when there is low level of cognitive anxiety. Once an athlete experience high level of cognitive anxiety as in a situation where an athlete is worrying and it combines with increase of arousal beyond and optimal level, there will be a quick or catastrophic decrease in performance. However, since there is lack research, there has been very poor research support for the catastrophe model [9].

Recent investigation found that male and female athletes suffering stresses resulted pressure to win, excessive anxiety, frustration conflict, irritation and fear, which significantly affected their mental or emotional health [10]. 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 [11], especially the level of cognitive anxiety. However, since lack of research on cognitive anxiety and its effect on performances, sport psychologists still failed to determine the relationship among those variables. Moreover, most of the previous research, focused on elite athletes, while ignoring less successful athletes. This was confirmed by [12] that research on competitive anxiety mainly focused on elite athletes. The extant literature also shows that there is a limited research comparing on cognitive anxiety among badminton players of beginners, intermediate, advanced and professional. In this research beginners are considers whom have very limited experiences and had not taken part in badminton competition. Intermediate are those who once a while taken part in badminton competition, mainly for fun. Advanced badminton players are those involved in local or district competition. While, professionals are those who had taken part in national or state badminton competition.

The main purpose of this study was to examine the levels of cognitive anxiety among badminton players of different skill. The present study aim to determine the level of cognitive anxiety on beginners, intermediate, advanced and professional badminton players.

2. METHODS

The participants of this study were recruited from Universiti Teknologi MARA (UiTM). The instrument used for the study comprised of a 27-item Competitive State Anxiety Inventory–2 (CSAI-2). The sample consisted of 51 Badminton players, comprise beginners (N=15), Intermediate (N=12), Advanced (N=13) and Professional (N= 11).

3. RESULT

3.1 Respondents' Profile

The respondents' profile described their ranking, ethnic and age. Table 1 shows the overall results of the respondents' profile for 51 Badminton players. The age of male respondents varied from 19 to 25 years, where the mean age was 23.71 years old.

The variable "rank which is gathered through this study is categorized into four levels namely, beginners, Intermediate, Advanced and Professional. The result showed that 15 respondents had participated as beginner, whilst 12 respondents participate at intermediate, 13 had participated at advanced and 14 as professionals. Majority of the respondents, were undergraduates for Degree (n=42) and Diploma (n=36) programmes.

Table -1: Respondents' Profile (n=51)

Variables	Frequency	Percentage	Mean	SD
Athletes according to rank				
Beginner	15	29.41		
Intermediate	12	23.53		
Advanced	13	25.49		
Professional	11	21.57		
Programme				
Diploma	15	29.41		
Degree	36	70.59		
Age				
Male			23.71	2.11

3.2 Cronbach Reliability Coefficients

In this study, Cronbach alpha coefficients were found relatively high, ranging from .87 (Table 2).

Table -2: Cronbach Reliability Coefficients

Questionnaire	Cronbach's Alpha (n=51)
Cognitive Anxiety	**.8755**

3.3 Level of Cognitive Anxiety

Table 3 shows the mean scores for the cognitive anxiety among badminton players of different skills, $F(3, 51) = 13.514$, $p < .01$. 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 -3: Level of Cognitive Anxiety among badminton Players

Skills of Badminton Players	**Mean**	**F-Value**	**P-Value**
Beginner	17.1121	13.514**	0.000
Intermediate	15.0751		
Advanced	12.5510		
Professional	10.0010		

** p=.01

Post-Hoc Tukey Test (Table 4) showed that the level of cognitive anxiety of Beginner were higher than Intermediate (p=.05), Advanced (p=.05) and Professional (p=.05) skill players. Furthermore, the level of cognitive anxiety of Intermediate were higher than Advanced (p=.05) and Professional (p=.05) players, but lower than Beginners (p=.05). In addition, the level of cognitive anxiety of Advanced were higher than Professionals (p=0.05), but lower than Beginners (p=.05) and Intermediate (p=.05) level badminton players. Lastly, the level of cognitive anxiety of Professional were lower than Advanced (p=.05), Intermediate (p=.05) and Beginners level (p=.05).

Table -4: Post Hoc Tukey Test: Level of Cognitive Anxiety among Badminton Players

Skill of Badminton Players	Beginner	Intermediate	Advanced	Professional	**N**
Beginner		* (1.0178)	* (1.5021)	* (1.8450)	15
Intermediate					12
Advanced					13
Professional					11

*p=.05

4. Discussion

The result showed that Badminton players of beginners exhibited higher cognitive anxiety level than those in Intermediate and Advanced, whereas Professional players showed the lowest level of cognitive anxiety. In Malaysia, no 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, according to Drive theory, the present of audience for low skilled athletes, during the sport competition could increase their cognitive anxiety. Cognitive anxiety is the extent to which an athlete worries or had negative thoughts, and the negative thoughts may include fear of failure, loss of self-esteem and self-confidence. It could lead to the poor performance of an athlete in competition. It may start before a competition in the form of pre-

competitive anxiety that might affect performance throughout the competition. Elite athletes like professionals and advanced, who have learned anxiety management skills, often respond to a greater degree to cognitive anxiety but return to their resting rate sooner than those athletes, who are not trained in anxiety management like beginners and Intermediate players. Most probably Professional and Advanced players using coping strategies like positive self-talk, thought stopping, relaxation techniques and imagery to reduce their cognitive anxiety level. In the other hand, most of the low skill athletes like beginners and Intermediate players unaware and not practicing of these techniques. Therefore, the level of cognitive anxiety of beginners and Intermediate players were very high.

5. CONCLUSIONS

The findings of the research determined that there are differences in the level of cognitive anxiety, showed by different categories of badminton players. These differences were related to their level of skill. The results showed that Professional and Advanced badminton players exhibited lower levels of cognitive anxiety than beginners and Intermediates. Low cognitive 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 beginners and intermediate badminton players that are appropriate for dealing with their athletes' cognitive anxiety.

Future research should identify the most prevalent sources of cognitive anxiety among different skill of badminton players. Initial evidence suggest among the sources of anxiety are fear of injury, presence of audience, past unpleasant experiences, fear of lose, negative evaluation, knowledge of the opposition team, uncertainty, playing at the opposition's place, high hope, and perceived sport events as very important. Seeking sources of cognitive anxiety should be a great value to reduce the level of anxiety. Furthermore, types of coping strategies can be used to reduce the level of cognitive anxiety among athletes much depend on the sources of anxiety.

6. REFERENCES

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