Level of Cognitive and Somatic Anxiety on Badminton Competition

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ABSTRACT
Anxiety, as a negative emotional, affect perceptions in sport competitions, where a large majority of athletes consider anxiety to be debilitating 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

INTRODUCTION
Anxiety, as a negative emotional, affect perceptions in sport competitions, where a large majority of athletes consider anxiety to be debilitating 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, Dzwaltowski, 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>
<thead>
<tr>
<th>Skills of Athletes</th>
<th>Mean</th>
<th>F-Value</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>10.1710</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>11.2167</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District</td>
<td>13.4410</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>15.5100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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>
<thead>
<tr>
<th>Skills of Athletes</th>
<th>Mean</th>
<th>F-Value</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>13.7712</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>15.4133</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District</td>
<td>22.1042</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>24.4201</td>
<td></td>
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</tr>
</tbody>
</table>

**DISCUSSION**

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 (Loupoups, Fotini, Barkoukis & Tsorbatzoudis 2008; Claudio & Laura 2003). Beside that a few research showed elite athletes use 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**


