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## Investigating the swimmers' stress levels before and after the swimming competition

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### Abstract

The purpose of this study is to investigate the swimmers' stress levels before and after the swimming competition. For that purpose, 30 swimmer ( $M_{age}=12,03\pm,80$ ) participated in the study voluntarily. Stress Level Scale developed Leighton (1989) was used to investigate the differences of stress levels before and after the swimming competition. The data was analyzed using SPSS 16.0 Package Program, and level of significance was determined to be 0.05. There was not a statistically significant difference in terms of swimmers' stress levels before and after the swimming competition ( $p>0.05$ ). These findings were evaluated and discussed in terms of the stress levels of swimmers.

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### 1. Introduction

Psychological stress, defined as the particular relationship between the person and environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well being (Lazarus & Folkman, 1984). In daily life, there are various problems in the world, and everybody can encounter these problems (Yigiter, 2013a). When encountered problems, people have some psychological talents, and if they use them efficiently, a various problems like social, cognitive, individual and many others could be solved easily (Yigiter, 2013b). In general, stress occurs when a threat to self is perceived that requires energy resources for coping (Lazarus

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&Folkman, 1987). Children aged 10 to 12 years are in a transitional stage from childhood to adolescence; this period is a turning point in the lives of children and involves psychologically stressful challenges that may result in depressive symptoms (Herman-Stahl & Peterson, 1996). Therefore, stress is an impacting variable on individual's physical and psychological well-being in many ways. For example, the stress a child brings to school can impact the climate of the school by influencing student behaviors and academic achievement. Common stressors in late adolescence, when students are beginning college, include transitioning from home to school and transitioning from dependence on family to oneself and one's friends (Cohn, 2008). The everyday pressures of life have the ability to undermine an individual's comfort and security while creating problems for people in establishing their psychological identity, which in turn may lead to a vulnerability to stress and anxiety (Spielberger, 1985).

In conclusion, the stress level of swimmers can be decreased by taking a natural mentor. Mentoring has been identified as a probable solution to improve the future (Grossman & Johnson, 1999). It is hypothesized that the swimmers' stress levels in the study group will decrease at the end of the swimming competition.

## 2. Method

### 2.1. Subjects

The population includes swimmers aged 11-13 ( $M_{age}=12,03\pm,80$ ) in Sakarya city in the Marmara region of the Turkey. Thirty swimmers were chosen randomly. All testees were voluntarily and interestedly included in the present research.

### 2.2. Measures

In the present research, the Stress Level Scale I-II developed by Leighton (1989) was used to collect information on participants. Stress Level Scale I-II was adapted to Turkish by Baltas (1994). In this study, stress scale II was performed on children attending 6th and 7th grade. Stress scale II includes 25 items. Scores between 27 and 29 are within normal range; scores between 30 and 35 are at the high boundary, and scores above 36 suggest high stress.

### 2.3 Procedure

Firstly, consent from the students was taken verbally. In this study designed as a quasi-experimental, the Stress Level Scale was distributed among the swimmers before the swimming competition. At the end of the competition the same scale was performed on the same swimmers. Informed consent was signed by participants before the swimming competition, and also all scales used in this study were anonymous.

### 2.4 Data Analysis

All data collected in the present study were analyzed using SPSS 16.0 Package Program. Descriptive statistics, paired samples t test were used to analyze the data. Level of significance was determined to be 0.05.

## 3. Results

According to data collected in this study, there was not a statistically significant difference in terms of swimmers' stress levels before and after the swimming competition ( $p>0.05$ ).

Table 1. Differences between pre-test and post-test of swimmers

	Stress levels			P
	N	Mean	SD	
Pre-test	30	29,30	5,35	,035
Post-test	30	27,43	4,88	

#### 4. Discussion

The present study was conducted to investigate the stress levels of kid swimmers before and after in a swimming competition. The results of the present study did not indicate any significant difference in stress levels of the participants before and after the swimming competition.

In reviewing the data collected in the present study, the results of this study did not support the hypothesis that the swimmers' stress levels in the study group will decrease at the end of the swimming competition. The results regarding stress level of the swimmers showed that There was not a statistically significant difference in terms of swimmers' stress levels before and after the swimming competition ( $p > 0.05$ ). This conclusion is in agreement with the research made by Ozbekci (1989) on investigating the stress levels in different sport branches competitions.

As limitations of the study perspective, studies made on the kid swimmers have not been found in the current literature to analyze them, and compare with the present study. Viewed from this angle, it can be said that this study is performed for the first time in Turkey. Also, there are some limitations in this study. Small sample was used in the study, and in testees' selection process, swimmers were chosen from one city in the Marmara region of Turkey. It should be noted that this study revealed primarily evidence for future studies in terms of stress levels of kid swimmers in the competition times.

In conclusion, it can be proposed that swimmers should participate in a mentor program in order to cope with the stress occurred in the swimming competition. because mentors had already desire to make a difference in a child's life, as well as they understood that as a mentor, their goal should be to be a role model to the kids. Having a mentor was related to having higher level of self-esteem, physical activity, and life satisfaction (DuBois & Silverthorn, 2005; Aoun, 2011). Also, natural mentors help play various roles that help children during their development (Aoun, 2011). In this way, swimmers can be more successful in the competitions by decreasing their stress levels than those who don't take a formal mentoring.

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