

# The Relationship between Sporting Experiences and Resilience of College Student Athletes in Japanese

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## 1 OBJECTIVES

Resilience is the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress (APA, 2008). In studies of resilience. And studies are available on the relationship of resilience to sports experience. In a study of resilience and sports experience from elementary school through university in a sample of college students, Ogawa et al., (2011) found higher resilience in students who had continuously practiced sports. In this study we looked at whether the acquisition of resilience differed by sporting event type and years of sports carrier.

## 2 METHODS

### 2.1 Participants

308 students from A and B college with experience practicing sports participated in the study. The sample consisted of 166 men and 142 women, with a mean age of 19.4±1.5 years.

### 2.2 Survey Items

#### 1. Profile

Name, age.

#### 2. Sports Practice Items

Current sport practiced, past sports practiced, sporting events, years of experience, best competitive performance.

#### 3. The Adolescent Resilience Scale

The Adolescent Resilience Scale (Oshio et al., 2002) consists of 21 items using a 5-point scale on 3 factors: Novelty Seeking, Emotional Regulation and Positive Future Orientation. A higher score for each factor is considered indicative of higher resilience.

## 2.3 Analyses

An unpaired t-test was used to look at differences between the mean values for each of the scale's 3 factors for the men and women. In addition, based on participants' current sport and sporting events, we assigned them to "individual-sport" and "team-sport" groups and used an unpaired t test to look at differences in means between the two groups.

Participants were also divided into 3 groups based on years of sports practice experience. Those with the mean plus one-half of the standard deviation or more years were assigned to the "long-experience group (11 or more years); those with the mean less one-half the standard deviation or fewer years were assigned to the "short-experience" group (1–5 years); and, the rest (6–10 years) were assigned to the "average-experience" group. Single factor analysis of variance was used to test for differences in the means.

SPSS Statistics 21 was used for the tests and the level of significance was set at 5%.

## 3 RESULTS AND DISCUSSION

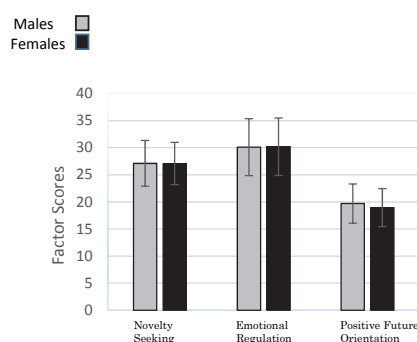


Figure 1: Resilience factor scores (M/F).

No significant differences were shown between the means for men and women.

The scores for the team sports group were significantly higher than for the individual sports

group for the factor Future Positive Orientation ( $t(306)=3.543, p=.001$ ).

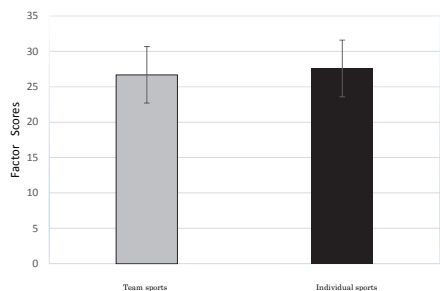


Figure 2: Novelty seeking scores by sports type.

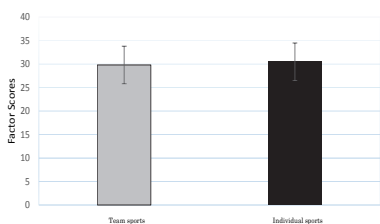


Figure 3: Emotional Regulation scores by sports type.

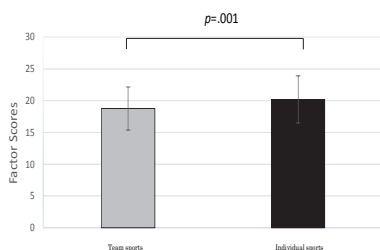


Figure 4: Future Positive Orientation Scores by Sports Type.

According to Ueno (2007) and Oshio et al. (2002) people's experiences of frequent painful life events, provide resilience in critical situations. Further, Tsuchiya et al. (2008) have suggested that social support is important in controlling chronic stress response in sports contestants. Compared to team sports individual sports may provide fewer social support resources, and athletes in individual sports may have fewer opportunities to enjoy that psychological benefit. In critical situations, they may more frequently have to overcome adversity on their own, which may facilitate the acquisition of a positive future orientation.

A significant main effect was shown for Positive Future Orientation for the 3 experience groups ( $F(307)=3.961, p=.045$ ). Post hoc tests showed that the effect of the long-experience group was greater than that of the short-experience group. Because training can be experienced as stressful, more than a few athletes have an aversion to it. The athletes with

a very long experience of practice may have scored higher in Positive Future Orientation because it is likely they experienced more painful life events related to practice than those in the short experience group.

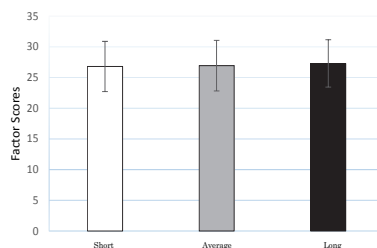


Figure 5: Novelty seeking scores by years of practice group.

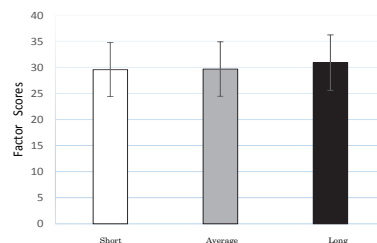


Figure 6: Emotional Regulation scores by years of practice group.

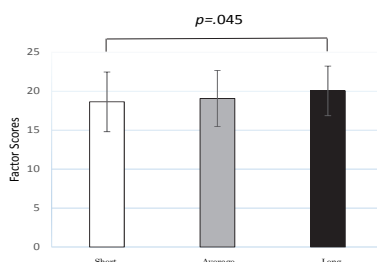


Figure 7: Future Positive Orientation Scores by years of practice group.

These results showed that practicing individual sports for a long time, 11 or more years, may promote the acquisition of resilience in the form of a positive future orientation.

## REFERENCES

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