ANXIETY AND TEAMGYM PERFORMANCE

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Introduction
Teamgym is a fairly new and popular form of Gymnastics including only trampoline, tumbling and floor exercises. Compared with other categories of gymnasts, teamgym athletes reported a significantly higher occurrence of injuries (Harringe et al., 2007). Anxiety is the psychological factor most commonly linked to motor performance during gymnastics, often related to the risk of physical injury (Kolt & Kirkby, 1994). Competitive anxiety contains two subcomponent: Trait anxiety, defined as the individual's general tendency to be anxious, and State anxiety, defined as the individual’s level of anxiety in a given situation (Filaire, et al., 2001). The aim of the present study was to investigate the correlation between anxiety and the teamgym performance.

Methods
Twenty-three Italian elite gymnasts, 7 males and 16 females, (mean age 21 ± 2) were administered State-Trait Anxiety Inventory form Y (STAY-Y) (Spielberger, 1983) with a scale ranging from 20 to 80 points. The Trait anxiety questionnaire was administered before a training session scheduled four months before the national competition. The State anxiety questionnaire was administered after the warm-up session of the National Teamgym Championship. The Friedman’s Test ANOVA for repeated measures was used to examine statistical differences between State-Trait Anxiety responses (p<0.05). Kruskal-Wallis ANOVA was used to examine gender differences. Polynomial correlation was calculated between performance and State anxiety.

Results
No significant difference was found for gender, thus data were pooled. Trait and State anxiety did not show any significant difference and were significantly correlated (Spearman’s Rho = 0.52; p< 0.05). A 0.66 correlation coefficient was found between State anxiety and performance, with best athletic results associated to 40 ± 2 of anxiety points and lower performances associated to higher and lower anxiety levels.

Discussion/Conclusion
As expected, Trait and State anxiety of gymnasts are significantly related (Spielberger, 1983). Independently of gender, State anxiety did not differ from Trait anxiety indicating that elite gymnasts have a good emotional control during competition. In agreement to the literature (Cartoni, et al., 2005), anxiety showed both facilitative and debilitative functions on performance, depending on optimal arousal zone. In particular, the present study shows that the best Teamgym performance is achieved with average levels of anxiety (i.e., around 40 pts).

References

Keywords: Anxiety, Gymnastics