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# THE EFFECTS OF AGE AND TRAINING PRESCRIPTION ON THE ACUTE RESPONSES TO TRAINING IN YOUNG ITALIAN RUGBY UNION PLAYERS

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**INTRODUCTION:**
Questionnaires and scales are often used to monitor training loads and training effects in elite sports (1). The purpose of the present research was to understand the moderating effect of age on the internal training load and acute responses to two different training prescriptions in young high-level rugby union players.
**METHODS:**
Acute responses to High Intensity Training (HI) and Low Intensity Training (LI) in 3 groups (U15 n=8, U17 n=10 and U19 n=9) of young Italian rugby players have been measured. HI training consisted of breakdown and wrestling activity alternating with aerobic power exercise, with small-sided games at the end. LI training consisted entirely of small-sided games with non-contact for technical and tactical objectives. Both the training prescriptions were 90 minutes total, warm-up and cool down included. The 2 workouts were part of the normal weekly training routine. The present research was done by strictly applying the procedures of an ecological experimental design. The following validated questionnaires were used to monitor the acute training effects: Foster's CR10 modified Rating of Perceived Effort scale (RPE) (2), Total Quality Recovery scale (TQR), Main and Grove (MG) questionnaire that monitors training distress in athletes, Fatigue (FAT) and Fatigability (FAB) scales. Repeated measure analysis of variance (2x3 ANOVA) was used to analyze RPE, FAT and FAB with respect to Age and Training type, while a 2x2x3 mixed ANOVA was used for MG and TQR questionnaires to further analyze the interactions of Time, Age and Training type. All post hoc analyses were performed following the Bonferroni correction procedure, setting the significance at a p value $<0.05$.
**RESULTS:**
Only a significant Training type by Age by Time interaction for the Sleep Disturbances subscales was found. Perceived effort was significant for age by training type interaction. Follow up tests revealed that the U17 group was statistically different for both conditions, while in the U19 group was just near to the threshold. The main effect of training type was statistically significant for the FAB scale. Only in post training conditions we found significant main effects of Training type and Age for the Physical Symptoms subscale.
**CONCLUSION:**
The RPE and FAB scales are most sensitive to acute effects of training load for group U17 and U19, while under the age of 15 these scales do not seem to provide valid ratings of session RPE. With the possible exception of the Physical Symptoms subscale of the MG questionnaire, TQR and the other MG subscales are not sensitive to acute differences in training load. Although some instruments have proven to be more sensitive and valid than others, the Training Monitoring strategy used in the present research represents a valid approach to control training sessions acute effects in young rugby union teams.

**Topic:** Training and Testing

**Presentation** Poster