CHAPTER 12: WORKLOAD AND PERCEPTION OF EFFORT IN SWIM TRAINING

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INTRODUCTION

Knowledge of the effects of exercise on the conduction of training is important in reaching desired outcomes, especially when athletes undertake prolonged training loads. Several procedures can be followed to monitor these effects. The usual markers, especially physiological, are often invasive. The stressful character of this methodology, its associated cost, as well as the requirement of laboratories and specialized staff, make them relatively inaccessible to many in the sport community. However, it is possible to register of the subjective perception of effort or fatigue in order to estimate the influence of a specific training load on athletes.

Perception of effort scales were first introduced in cardiac rehabilitation as a way of monitoring the impact of exercises (Borg, 1985, 2000). It is also suggested the perception of effort is the best single indicator since it integrates several sources of information related to the muscles and joints directly involved, and the cardiovascular, respiratory and nervous systems (Borg et al 1985; Borg, 2000). The signs, perceptions and experiences are integrated into a global configuration labelled the perception of effort. These scales have been used to evaluate the fatigue or physiological stress in isolated tasks (Maglischo, 1993; Wilmore and Costill, 1994; Rushal, 1995). The validity of these instruments in activities that involve elevated indices of fatigue makes them very useful in the monitoring of training. Further, the technique involves the athlete as an active agent in the evaluation of effects resulting from the application of specific workloads.

This study evaluates two scales of perception of effort as indicators of accumulated training load in national and regional level competitive swimmers belonging to the same sport clubs and training together. Over the course of 26 weeks of a winter (short season), training load (volume and intensity of weekly training) was monitored in 23 national and 23 regional level swimmers. During each week of the training season, the swimmers recorded their perception of effort in each micro cycle with two scales: the Portuguese