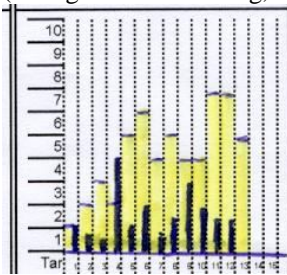


INTEGRATED MONITORING OF TRAINING LOAD IN TEAM SPORTS

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Dynamic complex systems theories will provide us the best theoretical basis to construct a specific training science for team sports in which this specific athlete is able to achieve his/her auto-structuring by differential optimization / 2 /. The analysis of specific adaptational mechanisms in team sports is essential for making effective changes in training design / 3 /. Training monitoring, a necessity to help coach in training guide, is based on recording changes in an athlete during various stages of training or under the influence of main elements of sport activities (training session, competition, microcycle) / 4,5 /. Accordingly, training control (related to training process: (a) performance assessment by systems, (b) capacity tests, (c) biological controls and (d) auto-control) and training evaluation (related to competition: (w) auto-evaluation, (x) performance measuring, (y) objective assessment and (z) external judgement) should be an integrated process chosen specifically for the athlete's characteristics and the event / 1 /.

In team sports the control-evaluation of technical-tactical training sessions is highly relevant in order to achieve an integrated monitoring of training load. Individual monitoring of the tasks being performed by more than ten players (in most cases) during a technical-tactical training sessions is almost impossible from a practical point of view. An effective solution has been experienced in basketball teams: to control-evaluate the different training load components of the team assuming that they approximately reflect the training load on each player. In this proposal the following components of every technical-tactical and conditioning training session are assessed: total duration of every exercise; total rest time in between exercises; approximate number of execution-participations and its duration for a reference player in each exercise; the biological-conditioning load, the technical-coordination load and the tactical-cognitive load of every exercise and of the training session; the volume of each group of exercises classified depending on the type of content and quality level; the biological-conditioning training load structure, the technical-coordination training load structure and the tactical-cognitive training load structure of the training session; relevant individual or group information related to any of the basic training components (biological-conditioning, technical-coordination, tactical-cognitive) pointed out by the coaches.



Biological-conditioning training load structure of a technical-tactical training session.

The proposed monitoring of training load of the technical-tactical and conditioning training sessions in team sports will provide useful information for making effective changes in training design, mainly on the following: (1) structure of technical-tactical training sessions, (2) structure of microcycles, (3) planning of training loads, (4) planning of selective technical-tactical and physical conditioning capacities.

It must be pointed out the necessity to integrate the proposals of biochemical monitoring of training / 4 / and control-evaluation of training / 1 / with the proposed monitoring of training load of the technical-tactical and conditioning training session.

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