

ABSTRAKT

Title of bachelor thesis: Analysis and Evaluation of the Training Preparation of an Elite 400-Meter Runner

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Aims: The aim of this thesis is to identify connections between performance in selected tests and the actual performance in the 400-meter run of the observed athlete. Another goal is to evaluate the course of the annual training cycle 2022/2023 using selected training indicators and highlight the potential impact of muscle injuries on the training process of a young athlete.

Methodology: Data for the bachelor's thesis were obtained through content analysis of a training diary. Individual training indicators were evaluated based on the number of training sessions and predefined load parameters, considering the periodization of the observed athlete's training process, using basic statistics. Any ambiguities were discussed with the coaches who supervised the athlete during the training period.

Results: It was confirmed that consistent periodization of the training process and adequate progressive loading are crucial for performance development and injury prevention. Developing all physical abilities proved essential, as the absence of any one of them negatively impacted the entire training process. The analysis revealed strong correlations between performance in selected tests and actual results in the 400-meter race, validating the effectiveness of diagnostic methods. Successful prevention of hamstring injuries was achieved primarily through appropriate dosage and structure of training load, which also led to significant performance improvement in the observed athlete.

Key words: 400 m sprint training, annual training cycle periodization, analysis of training documents, general and specific training indicators, hamstring injuries