

ABSTRACT

- Title:** Speed training in strength and conditioning preparation of youth basketball players
- Aims:** The main purpose of this thesis is to evaluate the effectivity of the training program designed to focus on development of speed abilities in category under fourteen years basketball players. Secondary aims are determination of relationship between practice attendances, number of games played, changes of body height, body weight and body composition of the players on their acceleration, maximal speed and agility tests performance.
- Methods:** For this thesis was used experimental method, which concentrated on observation of speed development in two groups of players, each with different conditions defined by training content. We used measuring, testing and interviewing for data gathering purposes. To assess the relationship between all parameters and their explanation we apply analytic and comparative methods. For evaluation of relationships was used Pearson's correlation and p-value for determination of statistical significance.
- Results:** The main hypothesis, presuming relationship between anticipation in our training program and improvement of speed abilities, wasn't confirmed by our calculations. The results were calculated for following tests: 20 m sprint ($r = -0.12$, $p = 0.69$, $n = 14$), flying 15 m run ($r = -0.31$, $p = 0.28$, $n = 14$) and lane agility drill ($r = -0.36$, $p = 0.23$, $n = 13$). The second hypothesis, presuming that players using the program, with smaller number of missed practices, will accomplish greater positive performance change. This hypothesis wasn't confirmed for any of the tests. The third hypothesis assumed, that higher attendance in games, will positively affect the performance in speed ability tests. Only for lane agility drill test was this hypothesis confirmed ($r = -0.49$, $p = 0.22$, $n = 8$). The relationships between changes of player's body and his speed performance changes revealed strong relationship only for agility test and body height change ($r = 0.66$, $p = 0.01$, $n = 8$) and moderate relationships between acceleration test ($r = -0.40$, $p = 0.15$, $n = 8$), maximal speed ($r = -0.38$, $p = 0.18$, $n = 8$) and change of body composition. Lastly very strong relationships were revealed between acceleration, maximal speed and agility tests.

Key words: acceleration, maximal speed, agility, body height, body weight, body composition, training, performance, changes