Abstract

Objectives: The aim of this study was to investigate the effect of height on the physiological response of the body and walking speed during challenge activity.

Methods: The study included 27 subjects, with an average age of 23±2, who were students of the Faculty of Physical Education and Sport (FTVS) at Charles University. The participants walked for 4 minutes over a low obstacle and 4 minutes over a high obstacle at their own pace, followed by 4 minutes over a low obstacle at a specified speed. The monitored parameters were heart rate (HR) and speed (V).

Results: The average HR during walking over a low obstacle at the specified speed was 100 beats per minute (σ=12.335), and the average speed was 0.272 (σ=0.221). During walking over a high obstacle, the HR was 133 beats per minute (σ=16.125). During walking over a low obstacle at their own pace, the average HR was 111 beats per minute (σ=13.416), and the average speed was 0.706 (σ=0.269).

Conclusion: Walking at height reflects the subjectively perceived risk through physiological responses. The height of the obstacle, which induces a subjectively perceived risk, increases the heart rate by 33 %. The walking speed decreased by an average of 0.434 m/s on the high obstacle.

Kewords: adventure education, risk, heart rate, stress.