

登山中の身のこなしをよくするための「登山体操」の開発

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【要 旨】

本研究では, ラジオ体操第 1 をヒントとして, 安全かつ快適な登山に有効な「身のこなし」の獲得が期待できる「登山体操」を開発することを目的とした. まず, 登山に必要とされる動きや, 改善させたい身体能力を考慮し, 10 種類の動きを筆者が制作・提案し, 共同研究者と共に動きの修正を図った. その後, 修正を加えた 10 種類の動きをもとにダンス振付家が音楽(曲)をつけ, 動きが整理された登山体操(案)が提案された. さらに, 筆者と共同研究者でさらに修正を加え, 3 分間で実施可能な一連の体操を完成させ, 10 種類の動きについて, 予想される効果と動きの注意点をまとめた. 完成した登山体操について, 運動強度をラジオ体操第 1 との比較により検討した. その結果, 登山体操を軽く行った場合には, ラジオ体操を軽く行った場合よりもやや負荷が高いものの, 血中乳酸濃度は変化しなかった. 一方, 激しく行った場合には血中乳酸濃度の増加につながる高い負荷をかけられたことから, 運動強度を幅広く調節することが可能であり, 年齢や性別によらず, 各人の体力レベルに応じて活用できると考えられた.

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Development of mountaineering gymnastic exercises designed to improve movements made during mountain climbing

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Key words: mountaineering, gymnastics, radio gymnastics #1, movements, exercise intensity

【Abstract】

The aim of the present study was to develop a “mountaineering gymnastics” that could teach movements useful for safe and comfortable mountain climbing, based on hints from “radio gymnastics #1”. In Japan, “radio gymnastics” refers to a prescribed set of exercises that can be done by anyone; the participants do exercises in a set sequence while listening to an NHK radio program that provides instructions and rhythmic music.

First, the present author designed ten kinds of exercises that were related to movements required for mountain climbing, while considering the physical abilities that needed to be improved. These exercises were later improved with the assistance of a colleague. A dance choreographer then added music. The author and her colleague further adjusted the exercise program so that it could be done in 3 minutes. Expected effects and points to be noted were then summarized. The intensity of these exercises was compared with the intensity of radio gymnastics #1. When these exercises were done gently, the work load was slightly higher than from doing radio gymnastics #1, but the concentration of blood lactic acid was at the same level. On the other hand, when these exercises were done vigorously, the high work load resulted in a higher concentration of blood lactic acid. This suggests that by controlling the intensity of the exercises, these mountaineering gymnastic exercises could be done by people at any level of physical strength, regardless of gender and age,.