Study of Energy Intake and Physical Work Capacity of the Armed Forces Personnel during the Military Training Course

Gholamhossein Pourtaghi

Health Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran.

pourtaghi@bmsu.ac.ir

Background and Aim: Fitting the human to the job is one of the most important goals of ergonomics so that a person can work in a work environment commensurate with his energy. Diet and nutrition are among the most important factors affecting the physical and cognitive function of individuals. Therefore, estimating the amount of energy intake by people and improving nutrition services will be effective in people's performance. The purpose of this study is to evaluate the energy intake by soldiers during the training course and determine the effect of the training course on their physical work capacity.

Methods: This research is a descriptive cross-sectional study. In this study, 150 male personnel of the armyand corps infantry, including soldiers and officers, were examined. The soldiers' energy intake was assessed through the specialized Nutrition4 diet analysis software. Physical work capacity was also measured at the beginning and end of the training using a treadmill.

Results: The results of this study showed that the amount of energy intake by personnel through food is 3252 kcal, which is less than the amount required by personnel to perform the physical activities assigned to them. It was also found that the physical work capacity and maximum aerobic capacity of the staff increased during this training course ($P<0.05$).Evaluation of measured heart rate values (before and after the test) at the beginning and end of the training period showed that the number of heart rate at the end of the training period increased significantly ($P <0.05$).

Conclusion: By increasing the energy intake through food, in addition to meeting the basic needs of personnel, the ability to perform combat activities can be increased. Also, because according to the obtained results, the aerobic capacity of individuals decreases with increasing age. In the training courses of older soldiers, their intensity of ~~physical activity should be reviewed to reduce fatigue and the possibility of reducing~~ mass index Physically prevent.

Keywords: Physical work capacity, Aerobic capacity, Energy Intake, Armed forces, Military training