Validation of Unit Level Instructed Eagle Tactical Athlete Program to Modify Human Performance Characteristics

The effectiveness of a physical training program is limited by structure of the program and the knowledge and skills of the instructor. The Eagle Tactical Athlete Program (ETAP) was developed for the Soldiers of the 101st Airborne Division (Air Assault) and previously validated to favorably modify human performance characteristics when implemented by non-military personnel in a controlled environment.

PURPOSE: To validate the effectiveness of ETAP to modify human performance characteristics when instructed at the unit level by Soldiers who previously completed the ETAP Instructor Certification School (ICS) as one of the Division’s individual training courses.

METHODS: A total of 34 Soldiers (Age: 27.1 ± 7.0 years, Height: 1.76 ± 0.08 m, Mass: 80.4 ± 13.4 kg) participated. Pre and post testing was performed to assess changes in body composition, aerobic capacity, anaerobic power/capacity, strength/flexibility (shoulder, torso, knee), and postural stability. Soldiers performed ETAP as standard physical training at the unit level and were instructed by the unit leaders during a pre-deployment workup phase. Paired t-tests or Wilcoxon tests were used to evaluate significant differences (p < 0.05).

RESULTS: Subjects performed 38.6 ± 13.3 days of unit training (exposure rate: 50.3 ± 17.5%). Significant improvements were demonstrated in knee flexion strength (Pre: 105.0 ± 18.5 %BW, Post: 114.9 ± 21.9 %BW), shoulder external rotation flexibility (Pre: 101.3 ± 19.9°, Post: 116.1 ± 11.0°), posterior shoulder flexibility (Pre: 104.0° ± 7.1, Post: 108.4 ± 6.5°), postural stability (Pre: 19.9 ± 14.5, Post: 13.7 ± 5.7 GRF SD), and anaerobic capacity (Pre: 7.6 ± 1.1 W/kg, Post: 7.81 ± 1.0 W/kg).

CONCLUSION: The results of the study suggested that Soldiers who perform ETAP, when instructed by those who completed ICS training, demonstrated moderate improvements in several human performance variables. These improvements occurred despite the varied exposure due to training requirements and impact on physical training. Effective implementation of ETAP to improve or maintain physical performance must consider initial and continued training of the instructors (ICS), adjustments to physical training program based on tactical requirements, and ability to complete while deployed. Supported by USAMRMC #W81XWH-11-2-0097.