

## Proposal

**Title-** The Effects of Traditional Army ROTC Training on the Occupational Physical Assessment Test

**Program of Study-** Exercise Science

**Presentation Type-** Print Poster

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**Category-** Applied

**Abstract:** PURPOSE: This study investigated the effects of traditional Army ROTC (AROTC) physical training (PT) on Cadet's performance in the Occupational Physical Assessment Test (OPAT). The purpose of this study was to determine if there was a statistically significant difference between pre and post testing of the OPAT after the Cadets had gone through their usual AROTC training for five weeks. METHODS: Third year AROTC Cadets (12 males and 3 females at Liberty University volunteered for this study (mean  $\pm$  standard deviation age (22.1 $\pm$ 2.2 years), height (m=177.3  $\pm$  5.9 cm, f=174.6  $\pm$ 7.5 cm), and weight (m= 77.3 $\pm$ 7.2 kg f= 74.5 $\pm$ 8.1 kg). Cadets performed three OPAT trials during the spring semester: familiarization (within the first month of the spring semester), pre-training (one week after the familiarization trial), and post-training (after five weeks of AROTC training). The OPAT consisted of a: standing long jump, seated power throw, strength deadlift, and interval aerobic run. Statistical analysis was conducted via paired samples *t*-test on each task of the OPAT. RESULTS: Overall (males and females combined) significantly improved ( $p = 0.001$ ) pre vs. post in the interval aerobic run. When analyzing this task with only the male Cadets, there was also significant improvement in the interval aerobic run ( $p=.005$ ). CONCLUSIONS: Traditional AROTC training improved aerobic fitness but was not specific enough to significantly improve muscular strength and power tasks of the OPAT in five weeks. Integrating resistance strength and power

training has been shown to improve muscular strength and power in a relatively short amount of time and might help improve OPAT performance. Future studies will seek to improve Cadet performance in the strength and power tasks of the OPAT by implementing a properly periodized human performance program that combines strength and power training with aerobic endurance.