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Developing Fitness of Law Enforcement Recruits During Academy Training

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Background and aims

Law enforcement is an occupation with intermittent, highly demanding activities

Fitness is vital for individuals to successfully perform occupational tasks and also leads to improved long term health

To prepare for this role, law enforcement agencies commonly employ periods of training known as academies

Due to the importance of fitness, it is important that it is trained effectively

The aim of this research is to profile the fitness changes in law enforcement recruits and how it relates to occupational task performance

Methods

Data was retrospectively collected from 10 academy classes (604 male; 110 female)

Recruit training consisted of 36 sessions

- 2-4 times a week
- 1-2 hours in length
- Often body weight exercises or long distance runs

Fitness was measured by

- PT500 – composite test focusing on endurance and aerobic fitness
- Work Sample Test Battery (WSTB) – occupational simulation focusing on anaerobic power and strength

A paired t-test was conducted to compare initial and final test results

Repeated measures ANOVA was used to analyse fitness changes across age groups for males

Wilcoxon rank-sum test was used to analyse fitness changes across age groups for females

Ethics approvals were obtained from the Bond University and California State University, Fullerton Human Research Ethics Committee (HSR-17-0037)

With a focus on circuit training and long-distance runs, recruits in this academy tend to see larger improvements in muscular endurance and aerobic capacity



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Prioritizing muscular strength and anaerobic capacity may better prepare recruits for the demands working as full-fledged officers

Results

Significant improvements in all fitness measures from initial to final testing

Effect size (Cohen's *d*) ranging from trivial to moderate

Males scored significantly higher on fitness testing

Significant decrease in fitness performance as age increases in males with no change in females

Almost all PT500 tests showed a moderate effect size between initial and final scores

WSTB tests had effect sizes ranging from small to medium

Conclusion and implications

Recruits are able to significantly improve their fitness over the course of this academy training program.

However it appears that recruits see larger improvements in areas of muscular endurance and aerobic capacity. This is despite the occupational tasks commonly relying on muscular strength, power, and anaerobic capacity

Implementation of a program with a stronger focus on muscular strength, power, and anaerobic capacity may leader to larger improvements in these categories and better prepare recruits for their occupational demands.



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