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Run To The Hills: The Effects of Academy Training on the Physical Fitness of Law Enforcement Recruits across Three Classes

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ABSTRACT

Law enforcement agencies (LEAs) use the academy period to train recruits in the skills needed to undertake the demands of their job. Recruits must become prepared for the many physical rigors of law enforcement, which include sustained running, sprinting, driving, pursing fleeing suspects, and controlling those resisting arrest (1,4).

As recruits move from the general population to developing into law enforcement personnel, they may not be accustomed to the amount and type of physical training that will be demanded in law enforcement (2). This indicates the need for academy fitness programming that should be specific to the demands of law enforcement personnel.

Ideal training for recruits should include exercises that emphasize the movements and explosiveness needed for the daily tasks of law enforcement (2). Other considerations should be muscular strength and endurance, anaerobic power, flexibility, and injury prevention (1-3).

The purpose of this study was to compare the effects of physical training across three academy classes through pre- and post-academy assessment to determine the effectiveness of the training regimen implemented by the academy training staff.

METHODS

Three academy classes were compared to the effects of physical training across three academy classes. Retrospective analysis was conducted on three classes from one LEA (Class 1: Pre = 12, Post = 10), three classes from another LEA (Class 2: Pre = 13, Post = 12), and three classes from a third LEA (Class 3: Pre = 15, Post = 13). This was significant (p<0.05) in the three LEAs for the comparison between the classes.

In each analysis, the 10-week academy training period was divided into 0-4 weeks of programming (Weeks 1-4) and 5-10 weeks of programming (Weeks 5-10). The LEAs were all police academies in the United States.

RESULTS

• Retrospective analysis was conducted on three classes from one law enforcement agency:
  - Class 1: males = 62 (age=27.5 years ± 4.13, height=178.2 cm ± 6.41, body mass=81.7 kg ± 10.28), females = 5 (age=26.5 years ± 3.27, height=164.3 cm ± 10.44, body mass=66.6 kg ± 10.29).
  - Class 2: males = 47 (age=26.0 years ± 5.98, height=179.7 cm ± 9.11, body mass=81.2 kg ± 12.28), females = 7 (age=26.4 years ± 6.32, height=165.0 cm ± 8.70, body mass=66.0 kg ± 12.28).
  - Class 3: males = 52 (age=26.8 years ± 8.42, height=175.9 cm ± 9.66, body mass=68.9 kg ± 10.29), females = 8 (age=26 years ± 3.63, height=164.4 cm ± 8.06, body mass=67.8 kg ± 10.55).

• Due to the nature of law enforcement agencies, all of the classes began their academy training with different fitness levels at least one assessment:
  - Test 1 (Pre) significant difference between Class 1 and 2 (t-test; p<0.05) showed poorer than Class 1 in the 30-30-30 shuttle test, which was slower in Class 1 (3.5-4.0 s) compared to Class 2 (2.8-3.6 s).

• Recruits performed pre- and post-academy testing in the following assessments: medicine ball throw with a 2 kg ball (MBT), 75-yard pursuit run (75PR), and the multi-stage fitness test (MSFT). Academy training was conducted during the 22nd week. Pre-testing occurred in the week prior to the academy start. During the academy, the schedule for each course, post-testing was conducted during the last few weeks of the academy. These results suggest that the physical training programs implemented for these academy classes consistently focused on anaerobic power and endurance. This would suggest a greater implementation of interval running and long slow distance running, which is typical of law enforcement academies (1,4).

• However, the data also suggests that training staff did not focus on developing recruit's anaerobic and aerobic capabilities in a consistent manner. Given the majority of law enforcement job tasks tend to be anaerobic in nature, physical training programs should consider an increased focus on anaerobic training during academy job readiness for recruits. Future research should investigate the performance benefits of training programs that include anaerobic and aerobic development.

CONCLUSIONS

• The data indicated that there were major improvements in the MSFT for all three classes, a lack of improvement in MBT for Class 2 (MBT distance decreased, however it was not statistically significant), and lack of change or even decreases in performance in the 75PR (even for Class 1 which started with a significantly slower performance in 75PR).

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• However, the data also suggests that training staff did not focus on developing recruit's anaerobic and aerobic capabilities in a consistent manner. Given the majority of law enforcement job tasks tend to be anaerobic in nature, physical training programs should consider an increased focus on developing anaerobic power during the academy to job readiness for recruits.

• Future research should investigate the performance benefits of training programs that include aerobic, anaerobic, and as well as ability-related modalities.

REFERENCE


Figure 1. MBT distance from pre-academy assessment to post-academy assessment for three classes.

• Significant (p<0.05) improvement in performance from pre-academy to post-academy.
• Significant (p<0.05) decrease in performance from pre- to post-academy.
• Class 2 performed significantly (p<0.05) poorer than the other two classes in pre-academy assessments.
• Class performed significantly (p<0.05) poorer than Class 1.