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Published: 01/03/2019

Document Version:
Peer reviewed version

[Link to publication in Bond University research repository.](#)

Recommended citation(APA):

Zulfiqar, M. M., Woodland, J., Orr, R. M., Schram, B., Lockie, R. G., & Dawes, J. (2019). *Fitness testing in law enforcement officers: A critical review*. Poster session presented at Rocky Mountain American College of Sports Medicine Annual Meeting 2019, Denver, United States.

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FITNESS TESTING IN LAW ENFORCEMENT OFFICERS: A CRITICAL REVIEW

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PURPOSE: The ability to perform physically demanding tasks is an expected requirement for law enforcement officers due to the unpredictable events that can occur in the policing profession. For this reason, it is suggested, and in some instances is a requirement, for law enforcement officers to undergo fitness testing to ensure they are prepared for the physical nature of their occupation. The aim of this review was to critically appraise research studies employing various fitness testing that law enforcement recruits complete, with an aim to inform on the use of fitness testing in an occupational setting.

METHODS: A comprehensive search of literature was conducted by two authors (MZ & JW) independently using four databases (PubMed, Embase, CINAHL, SPORTDiscus) known to generate search results related to this topic of research. After duplicate articles were removed, articles that did not meet the pre-determined inclusion criteria and met the exclusion criteria were also removed. The remaining studies were critically appraised using a Downs and Black Checklist independently by two authors (MZ & JW). Cohen's Kappa coefficient was used to measure the level of agreement between appraisers and calculated by a third author (RO). The grading system proposed by Kennelly was used to grade the methodological quality of the studies with the relevant information from the studies extracted.

RESULTS: From an initial 7384 identified studies, 11 studies met the criteria for review. The mean critical appraisal score for the articles was 74.36% ($\sigma=1.48$) being considered 'good' quality. There was a 'substantial' level of agreement between the two authors with a Cohen's kappa of $k=0.75$. The most common measures of fitness assessed amongst the 11 articles were endurance and aerobic capacity. The most common measures assessed were muscle endurance (push-ups and sit-ups) and aerobic capacity (running). The least common measure was agility. Push-up and the 2.4-km (1.5-mile) run testing had the strongest correlations to law enforcement academy graduation across the studies. Grip strength may predict occupational performance (marksmanship) as well as longevity.

CONCLUSION: This review concluded that the push-up and 2.4 km (1.5-mile) run fitness tests had the strongest positive correlation to law enforcement academy graduation. While these findings may be institutional specific (i.e. if this academy completes a high volume of push-ups and running these variables may be of greater importance to success), they highlight the need for these measures to be optimal prior to starting academy training and the potential use of barrier tests of these measures prior to acceptance.