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Performance on an anaerobic specialist tactical police fitness test: Candidates Versus Specialist Tactical Response Police Officers

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Introduction

Specialist tactical response police officers must respond to high threat situations beyond the capability of general duties police officers.¹ Carrying specialist equipment, these specialist police carry heavier occupational loads than general duties police officers.^{2,3} Common tasks, like a warrant execution, are typically short and explosive.¹ Candidates wishing to join specialist tactical response police teams are expected to be at a physical fitness level commensurate with the unit's requirements: A level that is above that of general police.^{4,5}

Purpose

The aim of this study was to compare differences in performance between candidates and qualified specialist tactical police officers completing an occupationally-specific explosive anaerobic task.

Methods

A retrospective analysis of data from male candidate trainees (n=18) and qualified specialist tactical response police officers (n=34) were provided (see Table 1). Data collected included age, body weight, height, worn equipment weight and Urban Rush (UR) time in minutes and seconds. The Urban Rush (UR) is an anaerobic occupationally-based assessment.

- Conducted over a 20-m track the UR includes:⁴
 - Anerobic sprints of up to 10-m
 - An 80kg victim drag
 - Engaging targets from a kneeling unsupported position
 - Leopard crawling.

Following descriptive analyses, independent samples t-tests were performed to determine if there were any significant differences between candidates and specialist tactical police officers.

Results

- There were no significant differences in height, body weight or total loads between groups (Table 1)
- Candidates were significantly (p = 0.002) younger (candidates = 32.11 ± 4.90 yrs: officers = 37.82 ± 6.64 yrs) and carried significantly (p <.001) heavier (candidates =24.02 ± 3.67 kg: officers = 18.97 ± 2.23 kg) occupational loads when compared to the specialist tactical police officers.
- The UR times of the specialist tactical police officers were generally faster than those of the candidates, with the result approaching significance (p= 0.087: candidates =111.73 ± 9.21 secs: officers = 105.10 ± 14.61 secs).

Conclusion

- Often selection courses include intense physical stresses which require the candidates to be exceptionally fit and increases their risk of physical injury during the process.
- Given the similar total loads moved and UR task times to completion, the results of this study suggest that candidates attempting selection into a specialist tactical police unit may be at a suitable level of fitness on attending selection and that the differences between successful selection and failure could focus on measures other than fitness.

Operational Relevance:

If candidates are as fit as qualified officers when attending selection, **avoiding excessive physically demanding tasks (for the sake of being physically demanding) and focusing on other attributes** during selection may mitigate a potential for loss of future specialist personnel due to potential injury in the selection process

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GROUPS	Trainees; n=18		Qualified Specialist; n=34	
	Min - Max	Mean ± SD	Min - Max	Mean ± SD
Age (yrs.)	26.00 – 42.00	32.11 ± 4.90	25.00 – 60.00	37.82 ± 6.64*
Height (cm)	173.00 – 193.00	183.72 ± 5.63	165.00 – 194.00	181.62 ± 6.70
Weight (kg)	71.00 – 110.00	89.44 ± 8.32	70.50 – 115.00	91.54 ± 10.89**
Kit Weight (kg)	16.50 – 31.10	24.02 ± 3.67	14.60 – 24.20	18.97 ± 2.23
Full Weight (kg)	99.00 – 127.60	113.46 ± 8.17	89.00 – 137.00	110.51 ± 11.77
Urban Rush Time (secs)	96.80 – 127.50	111.73 ± 9.21	86.82 – 149.40	105.10 ± 14.61
BMI (kg/m ²)	23.18 – 29.53	26.45 ± 1.58	23.60 – 34.40	27.69 ± 2.36
Loaded BMI (kg/m ²)	30.65 – 35.97	33.60 ± 1.61	29.10 – 41.00	33.46 ± 2.53

NOTE: Significantly different between applicants at *p = 0.05, **p<0.001

Table 1. Trainee and Qualified Specialist anthropometric characteristics and Urban Rush results