A Comparison Of Two Law Enforcement Marksmanship Assessments.

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PURPOSE: Law enforcement officers are often required to pass an annual marksmanship assessment to continue patrol duties. This assessment may not reflect on officer perceptions of confidence and handling of their firearm. The aim of this study was to identify differences in success rates and officer perceptions in firearm confidence and handling between a current Traditional Pistol Assessment (TPA) and a Proposed Pistol Assessment (PPA).

METHODS: A prospective, within-subjects, randomised, repeated measures study design was used. Officers (male n=8; female n=6; length of service 5.8±4.8 years) from an Australian law enforcement agency participated in the TPA or PPA in randomised order (group randomisation). The TPA and PPA were composed of seven (n=24 rounds) and six (n=16 rounds) serials, respectively. The TPA was a static marksmanship assessment while the PPA included serials mimicking real-world scenarios (e.g., moving backward while shooting, shooting from behind a barrier, etc.). Officers completed a survey pre- and post assessments rating how comfortable, confident, and safe they felt handling and firing their firearm. Scores ranged from zero (signifying not safe, comfortable, or confident) to 10 (signifying extremely safe, comfortable, or confident). Descriptive and inferential statistics were performed with significance set at alpha < 0.01 to mitigate familywise error.

RESULTS: Four (29%) officers passed the TPA, while seven (50%) passed the PPA. While the Wilcoxon Signed Rank test found no significant differences between the scores of the surveys given pre-assessment and post TPA, significant improvements pre-assessment and after PPA across all survey domains were identified (Table 1).

RELEVANCE: More officers passed the PPA assessment than the TPA. Officer weapon handling confidence was also found to be greater following the PPA assessment. When employing a marksmanship assessment an organisation should consider 1) situational requirements of weapon employment, and 2) second order effects (like confidence in weapon handling).

Table 1: Wilcoxon Signed Rank Test Results comparing survey results pre and post TPA and PPA.

Variable	Comparison	P-Value	R
Handling Comfort	Initial vs Post TPA	0.83	-0.33
	Initial vs Post PPA	0.003	-0.57
	Post TPA vs Post PPA	0.014	-0.46
Handling Confidence	Initial vs Post TPA	0.52	-0.37
	Initial vs Post PPA	0.002	-0.6
	Post TPA vs Post PPA	0.14	-0.46
Handling Safety	Initial vs Post TPA	0.102	-0.31
	Initial vs Post PPA	0.015	-0.46
	Post TPA vs Post PPA	0.034	-0.4
Firing Comfort	Initial vs Post TPA	0.096	-0.32
	Initial vs Post PPA	0.004	-0.54
	Post TPA vs Post PPA	0.009	-0.49
Firing Confidence	Initial vs Post TPA	0.202	-0.24
	Initial vs Post PPA	0.002	-0.59
	Post TPA vs Post PPA	0.01	-0.48
Firing Safety	Initial vs Post TPA	0.408	-0.16
	Initial vs Post PPA	0.008	-0.5
	Post TPA vs Post PPA	0.071	-0.34