The Role of Socio-Demographics on the Test of Memory Malingering (TOMM) Performance Using a Large Military Sample

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1. INTRODUCTION

Performance validity tests (PVT) are widely utilized to determine the cognitive engagement of an examinee during a neuropsychological assessment. One of the most well-validated and frequently used PVT is the Test of Memory Malingering used by 75%-78% of North American neuropsychologists (TOMM; Martin et al., 2015; Schroeder et al., 2016; Tombaugh, 1996). Failure on the PVT indicates a lack of effort during the neuropsychological test, which questions the validity of the assessment. Hence, PVTs are classified as a medical necessity by the National Academy of Neuropsychology (Bush et al., 2005). Previous research suggests that military members score low on PVTs, and approximately 17%–28% have a TBI (Armistead-Jehle, 2010; Jak et al., 2015). There is a dearth of literature on the influence of demographics on the TOMM in a military population.

2. OBJECTIVE

To assess the relationship between demographics and the Test of Memory Malingering (TOMM) in a military sample.
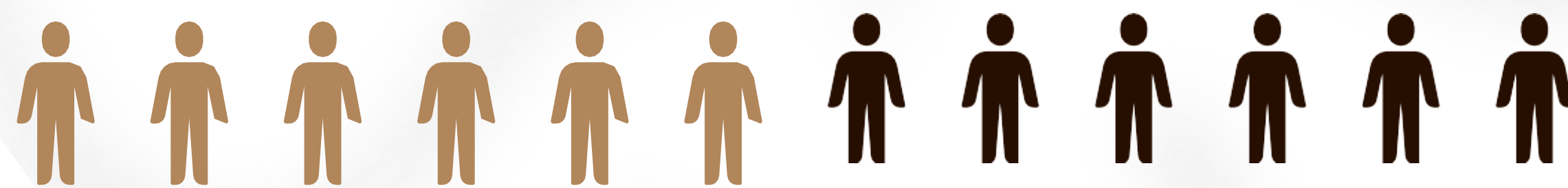
4. RESULTS

A decrease in TOMM Trial 2 scores was significantly associated with an increase in age $r(732) = -.09$, $p = .014$, education $r(717) = -.10$, $p = .008$ and three subscales of Armed Services Vocational Aptitude Battery (ASVAB): mechanical maintenance, $r(330) = .12$, $p = .04$; clerical, $r(313) = .11$, $p = .04$; and electronics $r(328) = .13$, $p = .02$. TOMM Trial 2 scores were not significantly associated with other variables.

5. CONCLUSIONS

The preliminary findings show a weak relationship between TOMM Trial 2 and age, education, and a few subscales of ASVAB. Given the importance of the role of effort in interpreting neuropsychological performance, more research is warranted to investigate the mediating variables for the military sample.

3. METHOD

N = 875
predominately Males and European American veterans
18-62 years
(M = 26.35, SD = 6.63)

An archival dataset
(https://osf.io/rv9cj/)

Pearson correlation coefficients between all socio-demographic variables

Variable	n	M	SD	1	2	3	4	5	6	7	8	9
1. Age	872	26.35	6.63	--								
2. Education	838	12.50	1.13	.40**	--							
3. Number of Deployments	684	1.95	1.33	.52**	.11**	--						
4. AFQT	300	60.69	18.43	.09	.23**	.05	--					
5. GT	433	109.39	11.86	.13**	.18**	.05	.85**	--				
6. MM	375	110.29	12.48	.09	.17**	-.05	.60**	.81**	--			
7. CL	357	97.98	30.45	-.05	-.01	-.04	.30**	.27**	.25**	--		
8. EL	373	107.93	13.04	-.10	.15**	.13*	.65**	.61**	.68**	.29**	--	
9. Trial 2	735	47.90	5.33	-.09*	.10**	.00	.10	.09	.12*	.11*	.13*	--

*p < .05, **p < .001.

AFQT= Armed Forced Qualification Test; GT = general technical; MM = mechanical maintenance; CL = clerical; EL = electronics; Trail 2 TOMM = Test of Memory Malingering

6. REFERENCES