Testing of Medical Students for Stress and Emotional Intelligence

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Strategic Operations[1]

Veracity Systems[2]

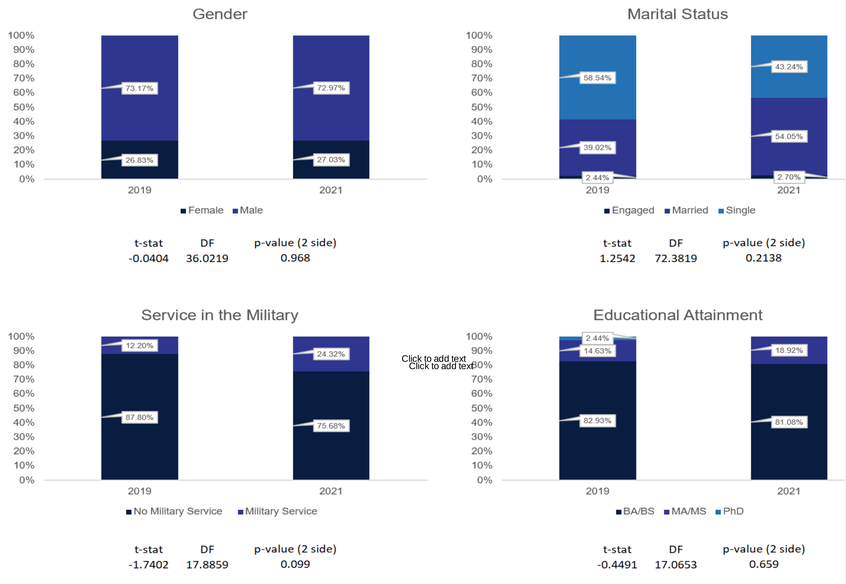
INTRODUCTION

Medical Students in the military Health Profession Scholarship Program (HPSP) were emerged in the "hyper-realistic©[1]." Intensive Surgical and Trauma Skills Course (ISTSC) for one week at Strategic Operations. By design, the course induces a level of stress encounter in hostile military operations. The course stimulates acclimation to stress under controlled conditions with the goal of improving resiliency and hardiness. We hypothesized that exposure to ISTSC would improve emotional intelligence, the capacity to be aware of, control, and express one's emotions, and to handle interpersonal relationships judiciously and empathetically.

METHODS

Informed consent was obtained from all participants. On day 1 and 6 of the course, the students were given the Veracity Security Systems[2] Stress and Emotional Intelligence (EQ) test. Data was collected for two courses in 2019 and 2021. The tests consisted of various Yes/No questions such as, “Would you estimate that your performance today was below that of your peers?” The test is administered by tablet, the TouchScreener™ technology can interpret any involuntary responses questions elicit. This interprets whether questions are answered truthfully and whether students experience a Significant Psychophysiological Response (SPR). A SPR indicates the subject may be attempting to avoid or obfuscate the truth. Statistical analysis was performed, and response data was tested for significance utilizing two-sided t-tests with p-values of ≤ 0.05.

DEMOGRAPHICS



RESULTS

41 students from 2019 and 37 from 2021 agreed to participate. The participant demographics from each of the two years were similar and combined into a single cohort. We believe these findings are generalizable as there is no significant difference between the groups. As seen in the following tables, the percent of SPR responses decreased in each question when comparing day 1 to day 6 of ISTSC.

The overall trend was decreased anxiety and increased confidence. These findings support and improve emotional intelligence of the participants but could indicate increased confidence and hardiness.

RESULTS CONTINUED

Would you estimate that your performance today was below that of your peers?

Response	No Year Breakout			Pct. Point Diff.	
	EQ1	EQ2	Percent Change	EQ1	EQ2
Admits	34.62%	46.15%	33.33%	34.62%	46.15%
No Response	55.13%	50.00%	-9.30%	55.13%	50.00%
SPR	10.26%	3.85%	-62.50%	10.26%	3.85%

Would you estimate that your faculty would be disappointed with your performance today?

Response	No Year Breakout			Pct. Point Diff.	
	EQ1	EQ2	Percent Change	EQ1	EQ2
Admits	25.64%	15.38%	-40.00%	25.64%	15.38%
No Response	62.82%	78.21%	24.49%	62.82%	78.21%
SPR	11.54%	6.41%	-44.44%	11.54%	6.41%

Would you estimate that you made some impulsive decisions during the medical exercises?

Response	No Year Breakout			Pct. Point Diff.	
	EQ1	EQ2	Percent Change	EQ1	EQ2
Admits	65.38%	67.95%	3.92%	65.38%	67.95%
No Response	30.77%	32.05%	4.17%	30.77%	32.05%
SPR	3.85%	0.00%	-100.00%	3.85%	0.00%

Were you unaware of the emotions you were experiencing during the medical exercises?

Response	No Year Breakout			Pct. Point Diff.	
	EQ1	EQ2	Percent Change	EQ1	EQ2
Admits	11.54%	15.38%	33.33%	11.54%	15.38%
No Response	76.92%	78.21%	1.67%	76.92%	78.21%
SPR	11.54%	6.41%	-44.44%	11.54%	6.41%

Were you unable to set aside your comfort and needs to successfully participate in the medical exercises?

Response	No Year Breakout			Pct. Point Diff.	
	EQ1	EQ2	Percent Change	EQ1	EQ2
Admits	26.92%	17.95%	-33.33%	26.92%	17.95%
No Response	62.82%	78.21%	24.49%	62.82%	78.21%
SPR	10.26%	3.85%	-62.50%	10.26%	3.85%

CONCLUSION

These findings indicate the Intensive Surgical and Trauma Skills Course induces stress that increases armed forces medical students’ hardiness, emotional intelligence, and resiliency. These findings support that ISTSC is a valuable experience, preparing medical students in the armed forces for operational medicine.