



# IDENTIFYING POST TRAUMATIC STRESS DISORDER IN TRAUMA SURGEONS



## TO IMPACT PATIENT OUTCOMES: THE ROLE OF THE DNP LEADER

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### Abstract

-Emergency and trauma personnel are at significant risk for psychological impairment due to significant exposure to traumatic events and critical incidents. Trauma Surgeons are at increased risk for developing PTSD related to chronic exposure to critical incidents, trauma events and certain personality traits.

-Traumatic events can cause demonstrable and chronic long terms events on psychological and physical health. Major medical errors reported by surgeons are strongly related to a surgeon's degree of burnout and their mental quality of life (Shanafelt et al., 2010).

-More than 45% of physicians are experiencing at least one symptom of burnout (Jackson et al., 2017). The practice of surgery is intense, stressful and highly demanding.

-Stress and burnout are at epidemic proportion in the medical field especially among surgeons (Sime, Quick, Saleh & Martin, 2007). Untreated PTSD and depression are associated with increased health care and societal costs (American College of Surgeons, 2014).

-This presentation explicates a study of Trauma Surgeons at one Southeast Los Angeles County ACS Verified Level II Trauma Center.

### Objectives

At the completion of this poster presentation the participant will be able to:

- Explicate how the DNP leader might identify Trauma Surgeons at risk through screening.
- List 3 examples of how the DNP prepared nurse leader could reduce the likelihood of PTSD development in Trauma Surgeons.
- Recognize 2 strategies specific to policy development, implementation in academia, clinical practice, administration and research with regards to Trauma Surgeons and the development of psychological distress.

### Methods

-The research question within the study was whether or not the measurement of PTSD using the Eysenck Personality Questionnaire Revised (EPQ-R), PTSD Civilian Checklist (PCL-5), the Life Stressor Checklist Revised (LSC-R) and the Life Orientation Test (LOT) identifies PTSD risk in Level II Trauma Center Surgeons that negatively impact patient outcomes. Trauma Surgeons (N=5) completed the four tools

EPQ-R Short Scale Results (Table 1)

Person	1	2	3	4	5
211	30	30	211	45	
(9)	(9)	(9)	(9)	(9)	
25	41	25	75		
(1)	(4)	(4)	(4)		
48	33	33	33		
(1)	(12)	(9)	(9)		
100	68	68	224		
(1)	(1)	(1)	(1)		
203	45	211	43		
(9)	(9)	(4)	(7)		
41	25	33	28		
(2)	(2)	(1)	(5)		
(2)	(2)	(1)	(9)		
16	25	48	45		

Trauma Surgeon Trait Analysis (Table 2)

Person	1	2	3	4	5
0.19	0.16	0.68	0.13	0.01	
0.5	0.41	0.41, 0.33, 1.0, 0.75, 0.25	0.31	0.1	
0.19	0.25	0.33	0.15	0.02	
0.5	0.58	0.75, 33, 0.50, 0.58, 0.68	0.16	0.02	

PCL-5 (Table 3)

Person	Score	Estimated PTSD Risk
14		Estimated <15% or below
12		Estimated <15% or below
28		Estimated 15-30%
7		Estimated <15% or below
12		Estimated <15% or below

PCL-5 Analysis (Table 4)

Person	Score	Estimated PTSD Risk
11	12	12
		12.5
		158.7

LOT-R Analysis (Table 5)

Person	Score	Estimated PTSD Risk
	23	
	20	
	14	
	23	
	11	

### Results

-The Trauma Surgeons completed all instruments within the packets received with a response rate of 62.5% (N=5).

-The **EPQ-R** is a tool to assess personality variables specifically introversion, neuroticism and 3 major dimensions of personality. The instrument revealed high levels of extroversion (mean =0.5) and lower levels of neuroticism (mean 0.19), it could be extrapolated that the group of Trauma Surgeons was more extroverted with a high drive to conform to a degree.

-The **PCL-5** is a 20 item self reported measure that assess the 20 DSM 5 symptoms of PTSD. The PCL yielded a range scores from a low of 7 to a high of 39. The instrument analysis yielded that four Surgeons has a estimated prevalence for having PTSD of less than 15%. One Surgeon had a PCL score of 39 this score estimated the prevalence of PTSD to be 16-39% . These results reveal that despite significant traumatic exposure earlier in life and the current chronic traumatic exposure that the surgeons are displaying low likelihood of PTSD.

-The **LOT-R** is a 10 scale instrument that measures the level of optimism and or pessimism in an individual. The results demonstrated high levels of optimism the sample of group surgeon possesses.

-The **LSC-R** elucidated the entire sample of Surgeons has preexistence of traumatic or stressful life events. Distinct patterns included sexual and violent assault, sexual harassment, exposure to domestic violence at a young age<10, arrest, miscarriage, serious financial problems, someone close to them dying and living through natural disasters at young ages<12. The LSC-R demonstrated the majority of Surgeons described when asked if this affected their life in the past year the answer was "not at all".

### Summary

-The results demonstrate the needs for further research regarding Trauma Surgeon experience and resilience.

-The data was evident in a number of Trauma Surgeons there was significant exposure to traumatic events earlier in life and for reasons not clear the Surgeons have been able to weather these exposures.

-While the chronic and continual exposure to trauma the Trauma Surgeons have managed to keep their scales of PTSD below that of what is consistent with PTSD.

### Conclusions

-DNPs as transformational leaders of organizations must manage Trauma Surgeons with care and consideration to reduce foreseeable risk.

-DNP's can facilitate in academic medicine and hospital settings a cultural of acceptance, lack of stigmatization and a move away from the culture of doctor invincibility.

-High exposure trauma facilities should have a formal policy process to screen surgeons and an organized system to respond to those whom screen positive as well as a means for Surgeons to return to work without their clinical competence being questioned.

-The DNP leader can play a pivotal role in facilitating these changes as frequently the DNP possesses both clinical and administrative savvy.

-The DNP can collaborate and engage the medical leadership of the Trauma Division or service line (e.g. **Trauma Medical Director, frequently the greatest ally**) within trauma facilities and develop local and national policies that work to generate strategies and support specific to cumulative traumatic exposure of Trauma Surgeons.

-The DNP and Trauma Medical Director can collaborate specific to surgical rotations, scheduling and much needed time off for the Surgeons as stress and burnout are at epidemic proportions amongst Surgeons.

-The DNP leader and Trauma Medical Director can share best practices locally, nationally as well as drive research specific to PTSD and Trauma Surgeons.

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