



Post-Traumatic Stress Disorder in a Large Veteran Sample: Results of the Trauma Symptom Inventory

A Closer Look at the Roles of Loss of Consciousness and Prevalence of Headaches, and Sleep Problems.

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INTRODUCTION

Many of the individuals returning from war meet the criteria for Post Traumatic Stress Disorder (PTSD) according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V). In order to diagnose an individual with PTSD, he or she must exhibit the following for at least a month and cannot be brought on by external causes like medication or substances:

- Either intrusion symptoms (ie. uncontrollable memories, night terrors) or avoidance behaviors (ie. constant suppression of emotions and recollections related to the trauma experienced)
- Declines in thoughts and mood states (ie. Lack of ability to remember not caused by a brain injury or other external factor, loss of interest in previously enjoyed activities)
- And two of the following: irritability/aggression, damaging behavior, hyper vigilance, exacerbated reaction to an alarm, difficulties focusing, and trouble sleeping.

To assess for this disorder, clinicians have utilized the Trauma Symptoms Inventory (TSI) to assist with diagnostics and subsequent treatment of PTSD. The TSI consists of ten clinical scales: anxious-arousal, depression, anger/irritability, intrusive experiences, defensive avoidance, dissociation, sexual concerns, dysfunctional sexual behavior, impaired self-reference, and tension reduction behavior.

OBJECTIVE

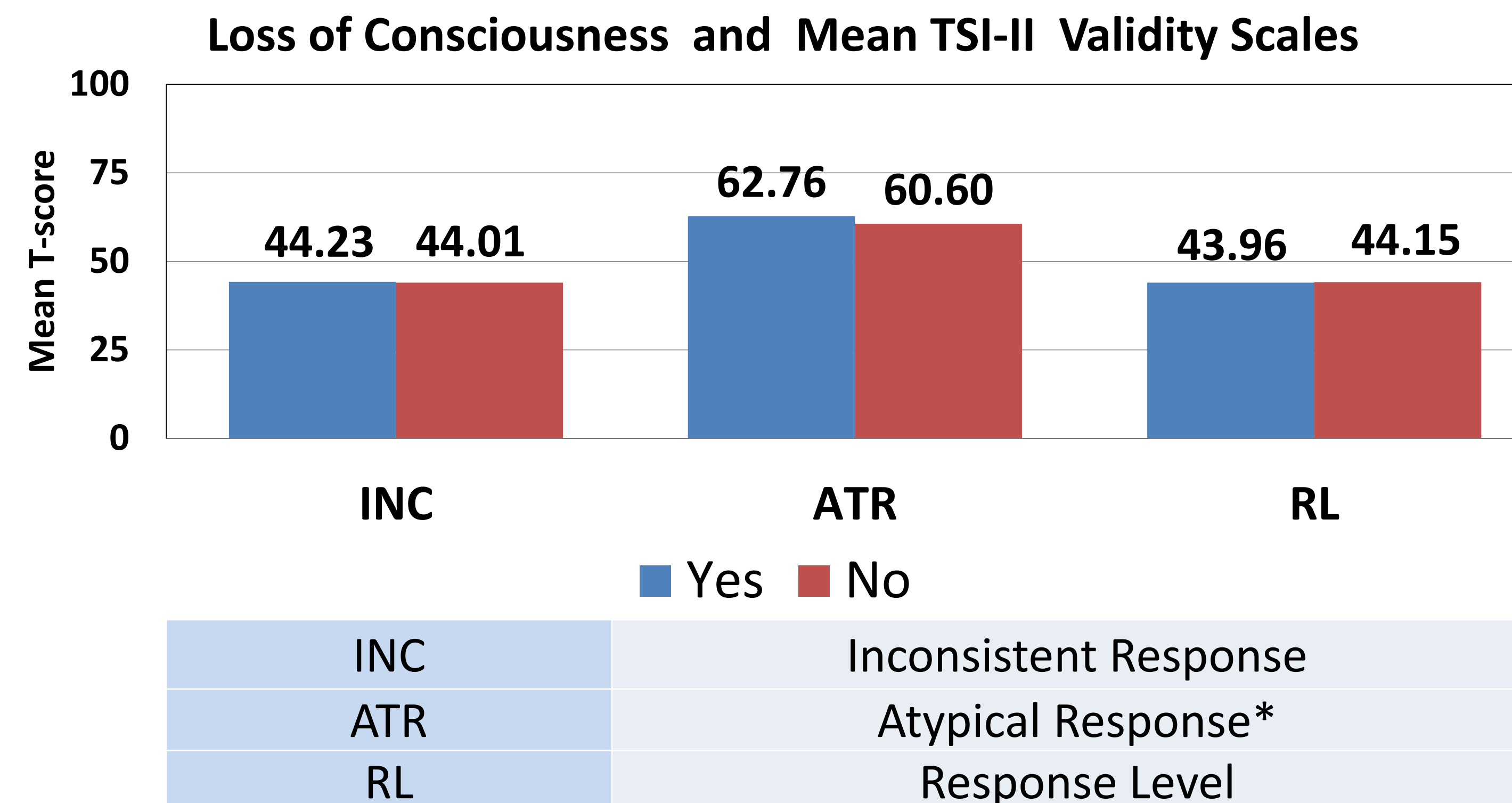
The intrusion and avoidance behavior criterion for PTSD according to the DSM-V imply that an individual recalls the traumatic event. Consequently, this study seeks to uncover if loss of consciousness plays a role in the development of PTSD by looking at the different clinical scales of the TSI for elevations. Additionally, this study seeks to observe TSI results and its relationship to headaches and sleep problems.

METHOD

A total 1,266 subjects were evaluated in the complete dataset. However, only 554 were included in the present study due to completion of TSI. The complete evaluation procedure consisted of a modified neuropsychological "Blast" battery which includes 3 hours of clinical interview and 7 hours of neuropsychological tests administered over two separate testing sessions.

Data was compiled via a private practice associated with Camp Lejeune, North Carolina. All individuals participated through the Tricare health care program and were referred by various military neurologists or other medical officers. The UNCW Office of Research reviewed and provided IRB approval.

Validity Scales



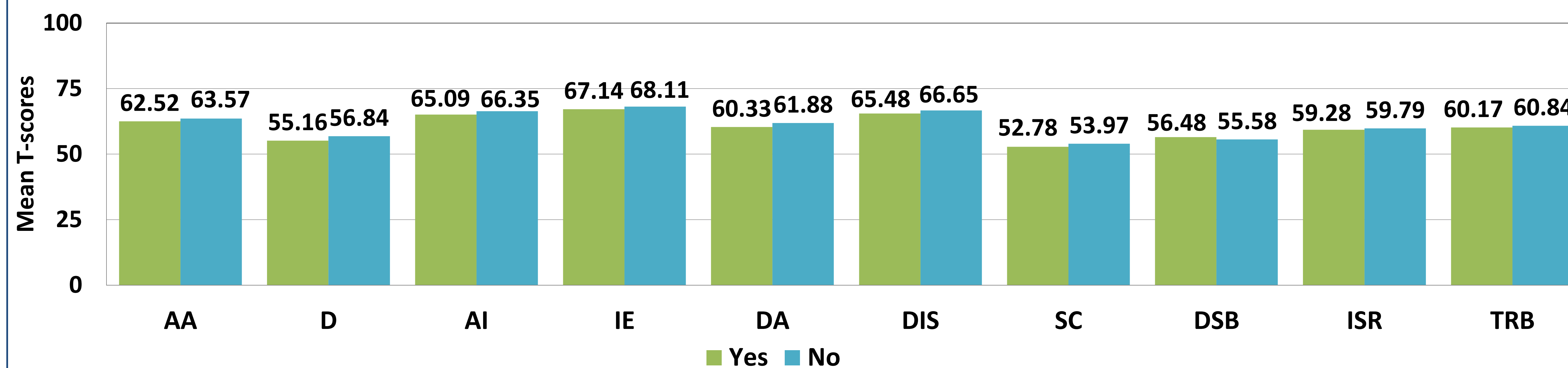
Findings of validity scales

- The Atypical Response scale evaluates how much an individual claims to experience events that are atypical within the standard population. Elevation of this could potentially indicate that the individual is attempting to exaggerate his/her symptoms or could indicate the existence of psychosis. Individuals with an elevated score should be further interviewed in order to properly interpret.

*indicates an elevated score with one or more standard deviations above the mean.

Clinical Scales

Loss of Consciousness and Mean TSI-II Clinical Scales



AA	Anxious Arousal*	IE	Intrusive Experiences*	SC	Sexual Concerns
D	Depression	DA	Defensive Avoidance*	DSB	Dysfunctional Sexual Behavior
AI	Anger/Irritability*	DIS	Dissociation*	ISR	Impaired Self-Reference*
				TRB	Tension Reduction Behavior*

*indicates an elevated score with one or more standard deviations above the mean.

Symptoms

Reported Headaches and TSI-II Scales

		INC	ATR	RL	AA	D	AI	IE	DA	DIS	SC	DSB	ISR	TRB
Mean	yes (n=468)	44	63	44	64	56	66	69	62	67	53	56	60	61
	no (n=67)	45	58	45	58	53	60	60	56	63	53	55	57	57
SD	yes	6	15	5	10	11	12	13	10	12	10	13	11	13
	no	6	17	6	12	12	13	14	11	14	11	13	12	14

Due to the discrepancy between the population size that reported headaches and the population size that did not report headaches, the groups were not compared.

Reported Sleep Problems and TSI-II Scales

		INC	ATR	RL	AA	D	AI	IE	DA	DIS	SC	DSB	ISR	TRB
Mean	yes (n=461)	44	63	44	64	56	66	69	62	67	53	56	60	61
	no (n=72)	44	59	45	59	54	60	60	56	63	53	55	57	58
SD	yes	6	15	5	10	11	12	13	10	12	10	13	11	13
	no	6	17	6	12	12	13	14	11	14	11	13	12	14

Due to the discrepancy between the population size that reported sleep problems and the population size that did not report sleep problems, the groups were not compared.

SUMMARY

It was suspected that the Intrusive Experiences and Defensive Avoidance clinical scales would be higher for those who did not lose consciousness.

However, a t-test indicated no difference between those who lost consciousness and those who did not regarding the validity scales and clinical scales.

There are several believed contributing factors to this lack of discrepancy including ;

- Existence of potential self-report errors
- Possibility that loss of consciousness does not necessarily indicate memory loss

Additionally, it is possible that knowledge of the traumatic event in conjunction with events leading up to and following this event, despite the ability to recall, is sufficient to evoke PTSD in an individual. The elevated scales were the same for both loss of consciousness and no loss of consciousness.

FUTURE DIRECTIONS

Several concerns are being investigated including;

- Validity of the TSI in the military population.
- The correlations between MMPI validity scales and TSI validity scales
- Reduction of PTSD symptoms over time.
- Further statistical analysis of TSI-II Scales and existence of headaches and sleep problems.

References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders*, (5th ed.). Washington, DC: Author.

Briere, J. (1995). *Trauma Symptom Inventory (TSI): Professional manual*. Psychological Assessment Resources: Lutz, FL.

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