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## **Supplementary Material**

**Article Title:** Predictors of Response to Prolonged Exposure, Sertraline, and Their Combination for the Treatment of Military PTSD

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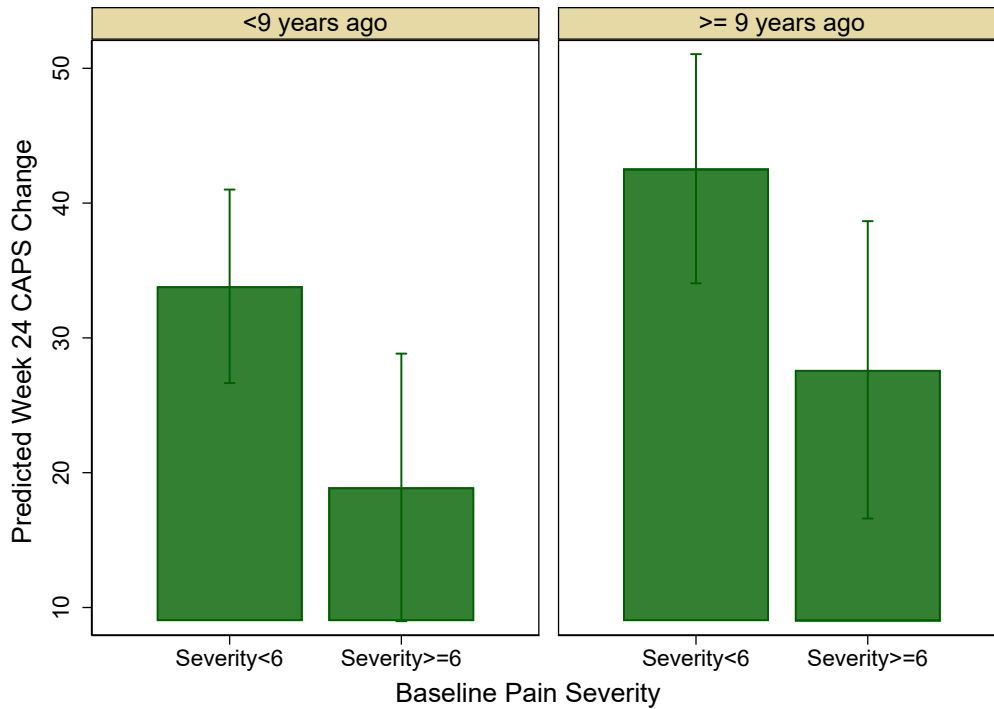
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**Supplementary Figure 1:** Predicted adjusted mean change in CAPS at week 24 and 95% confidence intervals in average persons if they belong to each of the four subgroups defined by dichotomized time-since-trauma [recent (<9 years) vs. distant ( $\geq 9$  years)) and baseline pain severity [less than severe (<6) vs. severe ( $\geq 6$ )]. Note that in the sample included in the model, 48.5% had recent trauma with less than severe pain, 15.7% had recent trauma with severe pain, 21.6% had distant trauma with less than severe pain and 14.2% had distant trauma with severe pain.



To illustrate the effect of TST and baseline pain severity on week 24 symptom improvement, we refit the model with the same predictors except using dichotomized TST ( $\geq 9$  years-since-trauma vs. <9 years-since-trauma) and baseline pain severity ( $\geq 6$  baseline pain severity vs. <6 baseline pain severity) instead of continuous variables. The model estimated 8.72 ( $p=0.04$ ) greater improvement in CAPS in those with distant compared with recent trauma and 14.92 ( $p=0.02$ ) lower improvement in CAPS in those with severe compared with less severe baseline pain after adjusting for all other variables. Figure 1 shows the predicted adjusted changes in CAPS based on the model in the four subgroups of those with recent trauma with less severe pain (mean=33.83; 95% CI=26.65, 41.00), recent trauma with severe pain (18.91; 8.99, 28.83), distant trauma with less severe pain (42.55; 34.05, 51.05), and distant trauma with severe pain (27.63; 16.60, 38.66) in otherwise average study participants.

**Supplementary Table 1.** Multiple regression model of symptom improvement at week 24, calculated as CAPS at baseline minus CAPS at week 24 assessing differential effect of time-since-trauma on week 24 symptom change by treatment arms (N = 134)

<b>Week 24 CAPS Change<sup>a</sup></b>	<b>Beta</b>	<b>Std. Err.</b>	<b>T</b>	<b>p-value</b>	<b>95% CI</b>
Baseline CAPS	0.51	0.18	2.81	0.006	.15, .87
PE+Placebo	-6.91	13.64	-0.51	0.61	-33.93, 20.11
PE+SERT	-12.01	13.46	-0.89	0.37	-38.68, 14.66
<b>Time-since-trauma slope by arms</b>					
<b>SERT</b>	<b>0.94</b>	<b>1.34</b>	<b>-0.70</b>	<b>0.49</b>	<b>-1.71, 3.59</b>
<b>PE+Placebo</b>	<b>1.54</b>	<b>1.08</b>	<b>-1.42</b>	<b>0.16</b>	<b>-.61, 3.68</b>
<b>PE+SERT</b>	<b>2.53</b>	<b>1.12</b>	<b>-2.26</b>	<b>0.03</b>	<b>.31, 4.75</b>
Black (ref: White)	-4.33	5.42	-0.80	0.43	-15.07, 6.41
Other or unknown race (Ref: White)	-8.97	7.03	-1.28	0.21	-22.91, 4.97
<b>Hispanic</b>	<b>11.99</b>	<b>5.49</b>	<b>2.19</b>	<b>0.03</b>	<b>1.12, 22.86</b>
Age (years) at randomization	-0.20	0.25	-0.80	0.43	-.70, .30
Self-report PTSD symptom (PCL-S)	-0.46	0.29	-1.60	0.11	-1.03, .11
Depression (BDI-II Total)	0.28	0.25	1.11	0.27	-.22, .79
Somatic symptom (PHQ15)	-0.25	0.47	-0.52	0.60	-1.18, .69
<b>Pain severity (BPI)</b>	<b>-2.84</b>	<b>0.99</b>	<b>-2.87</b>	<b>0.01</b>	<b>-4.80, -.88</b>
Guilt cognition (TRGI)	-4.04	3.11	-1.30	0.20	-10.20, 2.13
Number of drinking days	-0.51	0.33	-1.54	0.13	-1.18, .15
Intercept	38.97	19.35	2.01	0.05	.63, 77.32

<sup>a</sup>The model was adjusted for study site as well (stratification factor). A test of time-since-trauma slope difference across treatment conditions was not significant (F=0.47, p=0.62).

Abbreviations: BDI-II is Beck Depression Inventory- Second Edition; BPI is brief pain inventory; CAPS is Clinician Administered PTSD Scale; PCL-S is PTSD Checklist Specific Stressor Version; PE is prolonged exposure; PHQ15 is 15-symptom Patient Health Questionnaire; PTSD is post traumatic symptom disorder; SERT is sertraline; TRGI is Trauma Related Guilt Inventory.

**Supplementary Table 2.** Alternate model of outcomes during post-treatment follow-up period using mixed model with symptom at baseline and weeks 24, 36 and 52 as response variable (N=180)

CAPS score <sup>a</sup>	Beta	Std. Err.	T	p-value	95% CI
Maintenance period <sup>b</sup> (Ref: Baseline)	-32.52	1.56	-20.91	<0.001	-35.57, -29.47
PE+Placebo	.47	2.76	0.17	0.87	-4.95, 5.89
PE+SERT	-3.35	2.70	-1.24	0.21	-8.64, 1.93
<b>Time-since-trauma (years)</b>	<b>-.89<sup>c</sup></b>	<b>.40</b>	<b>-2.21</b>	<b>0.03</b>	<b>-1.68, -.10</b>
Black (ref: White)	3.95	3.12	1.27	0.21	-2.16, 10.06
Other or unknown race (Ref: White)	1.44	3.78	0.38	0.70	-5.96, 8.84
<b>Hispanic</b>	<b>-6.78</b>	<b>3.25</b>	<b>-2.09</b>	<b>0.04</b>	<b>-13.15, -.41</b>
Age (years) at randomization	.19	.15	1.28	0.20	-.10, .48
Self-report PTSD symptom (PCL-S)	.50	.16	3.22	0.001	.20, .81
Depression (BDI-II Total)	.24	.15	1.56	0.12	-.06, .53
Somatic symptom (PHQ15)	.30	.28	1.08	0.28	-.24, .84
<b>Pain severity (BPI)</b>	<b>1.51</b>	<b>.58</b>	<b>2.61</b>	<b>0.01</b>	<b>.38, 2.64</b>
Guilt cognition (TRGI)	2.67	1.79	1.49	0.14	-.84, 6.18
Number of drinking days	.36	.19	1.92	0.06	-.01, .74
Intercept	29.16	8.54	3.41	0.001	12.41, 45.90

<sup>a</sup>The model was adjusted for study site as well (stratification factor).

<sup>b</sup>Maintenance period is weeks 24, 36 and 52.

<sup>c</sup>The value is negative because CAPS (instead of change in CAPS) values at all follow-up times including baseline are response variables in this model and hence -.89 can be interpreted as 0.89 lower CAPS scores (lower symptoms) associated with each additional year-since-trauma.

Abbreviations: BDI-II is Beck Depression Inventory-Second Edition; BPI is brief pain inventory; PCL-S is PTSD Checklist Specific Stressor Version; PE is prolonged exposure; PHQ15 is 15-symptom Patient Health Questionnaire; ; PTSD is post traumatic symptom disorder; SERT is sertraline; TRGI is Trauma Related Guilt Inventory.