

Supplemental Table 1. Items included in short-form PCL-5 scales with between one and eight items to predict the dichotomous PTSD outcome based on the DSM-5 Criteria B-E diagnostic threshold in the full PCL-5 using RiskSLIM, stepwise regression, and factor analysis to select the items

	RiskSLIM								Stepwise								Factor Analysis										
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8			
Criterion B Intrusion symptoms (one required in DSM-5)																											
PCL1 Repeated, disturbing, unwanted memories				x		x	x	x								x									x	x	x
PCL2 Repeated, disturbing dreams																											
PCL3 Reexperiencing stressful experience																				x	x	x	x	x			
PCL4 Feeling upset when reminded of stressful experience			x				x	x			x	x	x	x	x	x			x	x	x	x	x	x	x	x	x
PCL5 Strong physical reactions when reminded of stressful experience					x										x	x	x					x	x	x	x		
Criterion C Avoidance (one required in DSM-5)																											
PCL6 Avoiding memories, thoughts, feelings	x	x	x	x	x	x	x	x				x	x	x	x	x										x	x
PCL7 Avoiding external reminders						x	x		x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x
Criterion D Negative alternations in cognition and mood (two required in DSM-5)																											
PCL8 Trouble remembering parts of stressful experience																											
PCL9 Strong negative beliefs about self, people, world																											
PCL10 Blaming self or others																											
PCL11 Strong negative feelings				x	x	x	x	x					x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
PCL12 Loss of interest in activities																											x
PCL13 Distant, cut off from others		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x											
PCL14 Trouble experiencing positive feelings						x	x	x																			
Criterion E Alterations in arousal and reactivity (two required in DSM-5)																											
PCL15 Irritability, anger, aggression					x			x																			
PCL16 Risk-taking																											
PCL17 Being superalert, watchful, on guard								x																			
PCL18 Feeling jumpy or easily startled																											
PCL19 Difficulty concentrating																											
PCL20 Trouble falling or staying asleep																											

Note. x denotes inclusion of original PCL-5 item on given short-form (e.g., original item PCL1 is included on the 4-, 6-, 7-, and 8-item short-form PCLs created using RiskSLIM).

Supplemental Table 2. Items included in short-form PCL-5 scales with between one and eight items to predict the dichotomous PTSD outcome based on the full PCL-5 score ≥ 28 diagnostic threshold using RiskSLIM, stepwise regression, and factor analysis to select the items

	RiskSLIM								Stepwise								Factor Analysis									
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Criterion B Intrusion symptoms (one required in DSM-5)																										
PCL1 Repeated, disturbing, unwanted memories							x						x	x	x	x							x	x	x	
PCL2 Repeated, disturbing dreams								x																		
PCL3 Reexperiencing stressful experience					x	x		x				x	x	x	x	x				x	x	x	x	x	x	
PCL4 Feeling upset when reminded of stressful experience	x							x												x	x	x	x	x	x	
PCL5 Strong physical reactions when reminded of stressful experience		x	x	x			x															x	x	x	x	
Criterion C Avoidance (one required in DSM-5)																										
PCL6 Avoiding memories, thoughts, feelings				x	x	x	x	x	x																x	x
PCL7 Avoiding external reminders										x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Criterion D Negative alternations in cognition and mood (two required in DSM-5)																										
PCL8 Trouble remembering parts of stressful experience							x																		x	
PCL9 Strong negative beliefs about self, people, world								x							x	x	x									
PCL10 Blaming self or others																										
PCL11 Strong negative feelings						x		x									x	x	x	x	x	x	x	x	x	
PCL12 Loss of interest in activities				x	x	x																			x	
PCL13 Distant, cut off from others		x					x	x	x			x	x	x	x	x	x									
PCL14 Trouble experiencing positive feelings								x																		
Criterion E Alterations in arousal and reactivity (two required in DSM-5)																										
PCL15 Irritability, anger, aggression					x		x	x	x			x	x	x	x	x	x									
PCL16 Risk-taking																										
PCL17 Being superalert, watchful, on guard								x															x	x		
PCL18 Feeling jumpy or easily startled									x																	
PCL19 Difficulty concentrating						x																				
PCL20 Trouble falling or staying asleep																										

Note. x denotes inclusion of original PCL-5 item on given short-form (e.g., original item PCL1 is included on the 7-item short-form PCL created using RiskSLIM).

Supplemental Table 3. Items included in short-form PCL-5 scales with between one and eight items to predict the dichotomous PTSD outcome based on the full PCL-5 score ≥ 32 diagnostic threshold using RiskSLIM, stepwise regression, and factor analysis to select the items

	RiskSLIM								Stepwise								Factor Analysis									
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Criterion B Intrusion symptoms (one required in DSM-5)																										
PCL1 Repeated, disturbing, unwanted memories		x						x																x	x	x
PCL2 Repeated, disturbing dreams			x	x	x	x	x				x	x	x	x	x	x										
PCL3 Reexperiencing stressful experience								x												x	x	x	x	x	x	
PCL4 Feeling upset when reminded of stressful experience	x						x												x	x	x	x	x	x	x	
PCL5 Strong physical reactions when reminded of stressful experience								x													x	x	x	x	x	
Criterion C Avoidance (one required in DSM-5)																										
PCL6 Avoiding memories, thoughts, feelings							x	x																	x	x
PCL7 Avoiding external reminders			x	x	x	x			x	x	x	x	x	x	x	x	x			x	x	x	x	x	x	
Criterion D Negative alternations in cognition and mood (two required in DSM-5)																										
PCL8 Trouble remembering parts of stressful experience					x																					
PCL9 Strong negative beliefs about self, people, world																										
PCL10 Blaming self or others							x																			
PCL11 Strong negative feelings								x						x	x	x	x			x	x	x	x	x	x	
PCL12 Loss of interest in activities								x																		x
PCL13 Distant, cut off from others		x	x	x	x		x	x	x	x	x	x	x	x	x	x										
PCL14 Trouble experiencing positive feelings							x																			
Criterion E Alterations in arousal and reactivity (two required in DSM-5)																										
PCL15 Irritability, anger, aggression				x	x	x	x	x							x	x	x									
PCL16 Risk-taking																										
PCL17 Being superalert, watchful, on guard								x																		
PCL18 Feeling jumpy or easily startled						x	x					x	x	x	x	x										
PCL19 Difficulty concentrating																										
PCL20 Trouble falling or staying asleep																										

Note. x denotes inclusion of original PCL-5 item on given short-form (e.g., original item PCL1 is included on the 2- and 8-item short-form PCLs created using RiskSLIM).

Supplemental Table 4. Items included in short-form PCL-5 scales with between one and eight items to predict the dichotomous PTSD outcome based on the full PCL-5 score ≥ 38 diagnostic threshold using RiskSLIM, stepwise regression, and factor analysis to select the items

	RiskSLIM								Stepwise								Factor Analysis								
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	
Criterion B Intrusion symptoms (one required in DSM-5)																									
PCL1 Repeated, disturbing, unwanted memories					x	x		x															x	x	x
PCL2 Repeated, disturbing dreams				x									x	x	x	x									
PCL3 Reexperiencing stressful experience																				x	x	x	x	x	
PCL4 Feeling upset when reminded of stressful experience	x					x	x												x	x	x	x	x	x	
PCL5 Strong physical reactions when reminded of stressful experience		x	x			x		x	x	x	x	x	x	x	x	x					x	x	x	x	
Criterion C Avoidance (one required in DSM-5)																									
PCL6 Avoiding memories, thoughts, feelings								x																x	x
PCL7 Avoiding external reminders			x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Criterion D Negative alternations in cognition and mood (two required in DSM-5)																									
PCL8 Trouble remembering parts of stressful experience																									
PCL9 Strong negative beliefs about self, people, world																									
PCL10 Blaming self or others								x							x	x	x								
PCL11 Strong negative feelings				x			x										x	x	x	x	x	x	x	x	
PCL12 Loss of interest in activities	x							x	x	x	x	x	x	x	x	x								x	
PCL13 Distant, cut off from others					x	x	x																		
PCL14 Trouble experiencing positive feelings		x																						x	
Criterion E Alterations in arousal and reactivity (two required in DSM-5)																									
PCL15 Irritability, anger, aggression								x																	
PCL16 Risk-taking				x		x	x				x	x	x	x	x	x									
PCL17 Being superalert, watchful, on guard				x			x																		
PCL18 Feeling jumpy or easily startled							x																		
PCL19 Difficulty concentrating				x		x																	x	x	
PCL20 Trouble falling or staying asleep							x																		

Note. x denotes inclusion of original PCL-5 item on given short-form (e.g., original item PCL1 is included on the 5-, 6-, and 8-item short-form PCLs created using RiskSLIM).

Supplemental Table 5. AUC for ROC by number of items in the short-form PCL scale, PTSD outcome, and statistical method in the training sample (n=8,917)

	Number of items in the short-form PCL scale							
	1	2	3	4	5	6	7	8
I. Outcome defined using the DSM-5 Criteria B-E diagnostic threshold								
Weighted RiskSLIM	.964	.986	.992	.993	.994	.995	.995	.995
Unweighted Stepwise	.946	.975	.984	.989	.990	.991	.991	.992
Weighted Stepwise	.946	.976	.984	.989	.991	.991	.992	.992
Unweighted Factor Analysis	.925	.975	.980	.983	.984	.985	.989	.990
Weighted Factor Analysis	.925	.976	.981	.984	.986	.987	.990	.992
II. Outcome defined using the PCL\geq28 diagnostic threshold								
Weighted RiskSLIM	.923	.976	.987	.991	.993	.995	.995	.996
Unweighted Stepwise	.900	.971	.984	.992	.994	.996	.996	.997
Weighted Stepwise	.900	.974	.985	.993	.995	.996	.997	.997
Unweighted Factor Analysis	.905	.959	.976	.982	.985	.986	.988	.993
Weighted Factor Analysis	.905	.959	.976	.983	.986	.988	.990	.995
III. Outcome defined using the PCL\geq32 diagnostic threshold								
Weighted RiskSLIM	.941	.984	.991	.994	.994	.996	.997	.997
Unweighted Stepwise	.924	.973	.991	.994	.996	.997	.997	.998
Weighted Stepwise	.924	.974	.991	.994	.996	.997	.998	.998
Unweighted Factor Analysis	.920	.967	.981	.986	.988	.989	.990	.995
Weighted Factor Analysis	.920	.967	.981	.986	.988	.990	.991	.996
IV. Outcome defined using the PCL\geq38 diagnostic threshold								
Weighted RiskSLIM	.964	.989	.992	.995	.996	.997	.997	.998
Unweighted Stepwise	.947	.984	.994	.996	.997	.998	.998	.999
Weighted Stepwise	.947	.984	.994	.996	.997	.998	.999	.999
Unweighted Factor Analysis	.942	.976	.989	.992	.993	.994	.994	.997
Weighted Factor Analysis	.942	.976	.989	.991	.993	.995	.995	.998

Supplemental Table 6. Validated AUCs of unweighted short-form PCL-5 scales with between four and six items developed in the training sample using stepwise regression (in the rows) to predict dichotomous PTSD outcomes assigned based on full PCL-5 responses using four diagnostic thresholds (in the columns) in the total validation sample (n = 11,728), the ever-deployed subsample (n = 6,280), and the never-deployed subsample (n = 5,448)

	Full validation sample				Ever-deployed				Never-deployed			
	DSM-5	PCL-5 >=28	PCL-5 >=32	PCL-5 >=38	DSM-5	PCL-5 >=28	PCL-5 >=32	PCL-5 >=38	DSM-5	PCL-5 >=28	PCL-5 >=32	PCL-5 >=38
I. 4-item scales optimized to predict...												
DSM-5	.989	.988	.990	.989	.988	.986	.989	.988	.991	.991	.990	.990
PCL-5 >=28	.987	.991	.993	.993	.986	.990	.992	.991	.988	.992	.994	.994
PCL-5 >=32	.986	.992	.993	.992	.984	.992	.992	.992	.989	.993	.993	.993
PCL-5 >=38	.987	.991	.991	.991	.986	.991	.991	.990	.989	.991	.992	.991
II. 5-item scales optimized to predict...												
DSM-5	.991	.992	.993	.993	.989	.990	.993	.992	.993	.995	.994	.994
PCL-5 >=28	.989	.993	.995	.995	.988	.992	.994	.994	.990	.994	.995	.995
PCL-5 >=32	.989	.996	.996	.996	.987	.995	.995	.995	.991	.997	.996	.997
PCL-5 >=38	.988	.993	.993	.993	.987	.992	.992	.992	.989	.992	.994	.993
III. 6-question scales optimized to predict...												
DSM-5	.992	.994	.994	.994	.990	.993	.994	.993	.993	.995	.995	.995
PCL-5 >=28	.990	.996	.996	.996	.989	.995	.995	.995	.992	.997	.997	.997
PCL-5 >=32	.989	.996	.996	.996	.987	.996	.996	.995	.991	.997	.997	.998
PCL-5 >=38	.989	.994	.994	.994	.988	.994	.994	.994	.989	.994	.995	.995

Supplemental Table 7. Brier scores (mean-squared errors) for predicted probabilities of the outcomes based on unweighted 4-item short-form PCL-5 scales developed in the training sample using stepwise regression (in the rows) to predict dichotomous PTSD outcomes assigned based on full PCL-5 responses using four diagnostic thresholds (in the columns) in the total validation sample (n = 11,728), the ever-deployed subsample (n = 6,280), and the never-deployed subsample (n = 5,448)

	Full validation sample				Ever-deployed				Never-deployed			
	DSM-5	PCL-5 ≥28	PCL-5 ≥32	PCL-5 ≥38	DSM-5	PCL-5 ≥28	PCL-5 ≥32	PCL-5 ≥38	DSM-5	PCL-5 ≥28	PCL-5 ≥32	PCL-5 ≥38
Short-form PCL-5 scales optimized to predict...												
DSM-5	.027	.028	.025	.023	.029	.031	.027	.025	.023	.023	.021	.019
PCL-5 ≥28	.028	.021	.020	.019	.031	.024	.022	.022	.024	.017	.017	.015
PCL-5 ≥32	.028	.023	.021	.019	.032	.025	.023	.022	.024	.020	.019	.016
PCL-5 ≥38	.028	.024	.022	.022	.029	.026	.024	.024	.025	.022	.020	.018

Supplemental Table 8. Operating characteristics of the final selected 4-item short-form scale, designed to optimize prediction of PCL-5 ≥ 28 using unweighted stepwise regression, to predict the four PTSD outcomes in the total validation sample (n=11,728)

Threshold of scale	% of the sample at the threshold	Sensitivity (%) at or above the threshold	Specificity (%) at or above the threshold	PPV (proportion) at the threshold	PPV (proportion) at or above the threshold	AUC at or above the threshold	Net Benefit above the threshold
I. Outcome defined using the DSM-5 Criteria B-E diagnostic threshold							
0	52.2	100.0	0.0	0.000	0.131	--	0.131
1	8.6	100.0	60.0	0.002	0.273	0.800	0.130
2	7.5	99.8	69.9	0.007	0.333	0.849	0.129
3	6.2	99.4	78.5	0.010	0.410	0.890	0.128
4	6.9	99.0	85.6	0.026	0.509	0.923	0.126
5	2.9	97.6	93.4	0.191	0.688	0.955	0.114
6	2.5	93.3	96.1	0.409	0.781	0.947	0.098
7	2.2	85.5	97.8	0.595	0.852	0.916	0.083
8	2.0	75.6	98.8	0.716	0.903	0.872	0.072
9	1.9	64.4	99.4	0.848	0.946	0.819	0.058
10	1.6	52.3	99.8	0.911	0.973	0.760	0.049
11	1.2	41.3	99.9	0.971	0.990	0.706	0.037
12	1.2	32.3	100.0	0.986	0.996	0.661	0.030
13	1.0	23.0	100.0	1.000	1.000	0.615	0.030
14	0.6	15.4	100.0	1.000	1.000	0.577	0.020
15	0.5	10.4	100.0	1.000	1.000	0.552	0.014
16	0.8	6.5	100.0	1.000	1.000	0.532	0.008
II. Outcome defined using the PCL-5 ≥ 28 diagnostic threshold							
0	52.2	100.0	0.0	0.000	0.150	--	0.150
1	8.6	99.9	61.4	0.003	0.314	0.806	0.149
2	7.5	99.7	71.5	0.005	0.382	0.856	0.149
3	6.2	99.5	80.3	0.014	0.472	0.899	0.147
4	6.9	98.9	87.6	0.045	0.585	0.933	0.144
5	2.9	96.9	95.3	0.210	0.786	0.961	0.135
6	2.5	92.8	98.0	0.589	0.894	0.954	0.116
7	2.2	83.0	99.2	0.845	0.952	0.911	0.090
8	2.0	70.7	99.6	0.879	0.973	0.852	0.085
9	1.9	58.8	99.9	0.982	0.995	0.794	0.064
10	1.6	46.6	100.0	0.993	0.998	0.733	0.054
11	1.2	36.2	100.0	1.000	1.000	0.681	0.054
12	1.2	28.2	100.0	1.000	1.000	0.641	0.042
13	1.0	20.0	100.0	1.000	1.000	0.600	0.030
14	0.6	13.4	100.0	1.000	1.000	0.567	0.020
15	0.5	9.0	100.0	1.000	1.000	0.545	0.014
16	0.8	5.6	100.0	1.000	1.000	0.528	0.008
III. Outcome defined using the PCL-5 ≥ 32 diagnostic threshold							
0	52.2	100.0	0.0	0.000	0.132	--	0.132
1	8.6	100.0	60.1	0.000	0.275	0.800	0.132
2	7.5	100.0	70.0	0.003	0.336	0.850	0.131
3	6.2	99.8	78.7	0.001	0.415	0.892	0.131
4	6.9	99.7	85.8	0.015	0.517	0.928	0.129
5	2.9	98.9	93.7	0.105	0.703	0.963	0.124
6	2.5	96.6	96.7	0.368	0.815	0.966	0.110

7	2.2	89.6	98.5	0.650	0.900	0.941	0.094
8	2.0	78.8	99.4	0.819	0.950	0.891	0.079
9	1.9	66.2	99.8	0.936	0.980	0.830	0.061
10	1.6	52.9	99.9	0.965	0.992	0.764	0.054
11	1.2	41.3	100.0	1.000	1.000	0.707	0.054
12	1.2	32.2	100.0	1.000	1.000	0.661	0.042
13	1.0	22.8	100.0	1.000	1.000	0.614	0.030
14	0.6	15.3	100.0	1.000	1.000	0.576	0.020
15	0.5	10.3	100.0	1.000	1.000	0.551	0.014
16	0.8	6.4	100.0	1.000	1.000	0.532	0.008

IV. Outcome defined using the PCL-5 >=38 diagnostic threshold

0	52.2	100.0	0.0	0.000	0.105	--	0.105
1	8.6	99.9	58.3	0.000	0.220	0.791	0.105
2	7.5	99.9	67.9	0.000	0.268	0.839	0.105
3	6.2	99.9	76.4	0.000	0.332	0.882	0.105
4	6.9	99.9	83.3	0.007	0.414	0.916	0.104
5	2.9	99.5	91.0	0.044	0.565	0.952	0.101
6	2.5	98.2	94.1	0.123	0.663	0.962	0.096
7	2.2	95.3	96.6	0.265	0.765	0.959	0.089
8	2.0	89.8	98.4	0.563	0.865	0.941	0.076
9	1.9	78.9	99.4	0.785	0.935	0.891	0.062
10	1.6	65.0	99.8	0.912	0.974	0.824	0.050
11	1.2	51.3	100.0	0.976	0.992	0.756	0.037
12	1.2	40.1	100.0	0.989	0.997	0.701	0.030
13	1.0	28.5	100.0	1.000	1.000	0.643	0.030
14	0.6	19.1	100.0	1.000	1.000	0.596	0.020
15	0.5	12.9	100.0	1.000	1.000	0.564	0.014
16	0.8	8.1	100.0	1.000	1.000	0.540	0.008

Supplemental Table 9. Operating characteristics of the final selected 4-item short-form scale, designed to optimize prediction of PCL-5 ≥ 28 using unweighted stepwise regression, to predict the four PTSD outcomes in the ever-deployed validation subsample (n=6,280)

<u>Threshold of scale</u>	<u>% of the sample at the threshold</u>	<u>Sensitivity (%) at or above the threshold</u>	<u>Specificity (%) at or above the threshold</u>	<u>PPV (proportion) at the threshold</u>	<u>PPV (proportion) at or above the threshold</u>	<u>AUC at or above the threshold</u>	<u>Net Benefit at or above the threshold</u>
I. Outcome defined using the DSM-5 Criteria B-E diagnostic threshold							
0	46.0	100.0	0.0	0.000	0.156	--	0.156
1	8.5	99.9	54.5	0.000	0.289	0.772	0.156
2	8.7	99.9	64.6	0.002	0.343	0.823	0.155
3	7.4	99.8	74.9	0.014	0.423	0.874	0.153
4	7.5	99.2	83.5	0.021	0.526	0.913	0.152
5	3.3	98.1	92.2	0.203	0.699	0.952	0.136
6	3.1	93.8	95.3	0.393	0.787	0.946	0.121
7	2.4	86.0	97.6	0.626	0.866	0.918	0.099
8	2.2	76.3	98.6	0.730	0.911	0.874	0.087
9	2.3	65.7	99.3	0.860	0.949	0.825	0.068
10	1.8	53.1	99.7	0.911	0.972	0.764	0.059
11	1.6	42.3	99.9	0.963	0.989	0.711	0.048
12	1.4	32.8	100.0	0.991	0.997	0.664	0.037
13	1.4	23.7	100.0	1.000	1.000	0.619	0.037
14	0.8	15.0	100.0	1.000	1.000	0.575	0.023
15	0.5	9.9	100.0	1.000	1.000	0.550	0.015
16	1.0	6.6	100.0	1.000	1.000	0.533	0.010
II. Outcome defined using the PCL-5 ≥ 28 diagnostic threshold							
0	46.0	100.0	0.0	0.001	0.179	--	0.179
1	8.5	99.8	56.1	0.000	0.332	0.779	0.179
2	8.7	99.8	66.4	0.001	0.394	0.831	0.179
3	7.4	99.8	77.0	0.014	0.487	0.884	0.176
4	7.5	99.2	85.8	0.048	0.605	0.925	0.172
5	3.3	97.2	94.6	0.220	0.796	0.959	0.162
6	3.1	93.2	97.7	0.619	0.898	0.954	0.136
7	2.4	82.4	99.1	0.851	0.955	0.908	0.108
8	2.2	70.9	99.6	0.875	0.974	0.852	0.103
9	2.3	59.9	99.9	0.983	0.994	0.799	0.074
10	1.8	47.4	100.0	0.989	0.998	0.737	0.067
11	1.6	37.2	100.0	1.000	1.000	0.686	0.067
12	1.4	28.6	100.0	1.000	1.000	0.643	0.051
13	1.4	20.6	100.0	1.000	1.000	0.603	0.037
14	0.8	13.0	100.0	1.000	1.000	0.565	0.023
15	0.5	8.6	100.0	1.000	1.000	0.543	0.015
16	1.0	5.8	100.0	1.000	1.000	0.529	0.010
III. Outcome defined using the PCL-5 ≥ 32 diagnostic threshold							
0	46.0	100.0	0.0	0.000	0.159	--	0.159
1	8.5	99.9	54.7	0.000	0.295	0.773	0.159
2	8.7	99.9	64.8	0.000	0.350	0.824	0.159
3	7.4	99.9	75.2	0.002	0.432	0.876	0.158
4	7.5	99.8	83.9	0.016	0.540	0.919	0.157
5	3.3	99.1	92.7	0.104	0.720	0.959	0.150
6	3.1	96.9	96.2	0.383	0.829	0.966	0.134

7	2.4	89.4	98.5	0.721	0.919	0.939	0.110
8	2.2	78.4	99.3	0.810	0.956	0.889	0.100
9	2.3	67.0	99.8	0.961	0.986	0.834	0.069
10	1.8	53.2	99.9	0.966	0.993	0.765	0.067
11	1.6	42.0	100.0	1.000	1.000	0.710	0.067
12	1.4	32.2	100.0	1.000	1.000	0.661	0.051
13	1.4	23.2	100.0	1.000	1.000	0.616	0.037
14	0.8	14.7	100.0	1.000	1.000	0.573	0.023
15	0.5	9.7	100.0	1.000	1.000	0.549	0.015
16	1.0	6.5	100.0	1.000	1.000	0.532	0.010

IV. Outcome defined using the PCL-5 >=38 diagnostic threshold

0	46.0	100.0	0.0	0.000	0.128	--	0.128
1	8.5	99.9	52.8	0.000	0.237	0.763	0.128
2	8.7	99.9	62.5	0.000	0.281	0.812	0.128
3	7.4	99.9	72.5	0.000	0.347	0.862	0.128
4	7.5	99.9	80.9	0.008	0.434	0.904	0.126
5	3.3	99.4	89.5	0.044	0.581	0.945	0.123
6	3.1	98.3	93.1	0.151	0.676	0.957	0.115
7	2.4	94.6	96.1	0.252	0.782	0.954	0.110
8	2.2	89.8	98.2	0.589	0.880	0.940	0.092
9	2.3	79.5	99.3	0.810	0.940	0.894	0.074
10	1.8	65.0	99.8	0.912	0.976	0.824	0.062
11	1.6	51.8	100.0	0.975	0.993	0.759	0.049
12	1.4	40.0	100.0	0.995	0.999	0.700	0.037
13	1.4	28.9	100.0	1.000	1.000	0.645	0.037
14	0.8	18.2	100.0	1.000	1.000	0.591	0.023
15	0.5	12.1	100.0	1.000	1.000	0.561	0.015
16	1.0	8.1	100.0	1.000	1.000	0.540	0.010

Supplemental Table 10. Operating characteristics of the final selected 4-item short-form scale, designed to optimize prediction of PCL-5 ≥ 28 using unweighted stepwise regression, to predict the four PTSD outcomes in the never-deployed validation subsample (n=5,448)

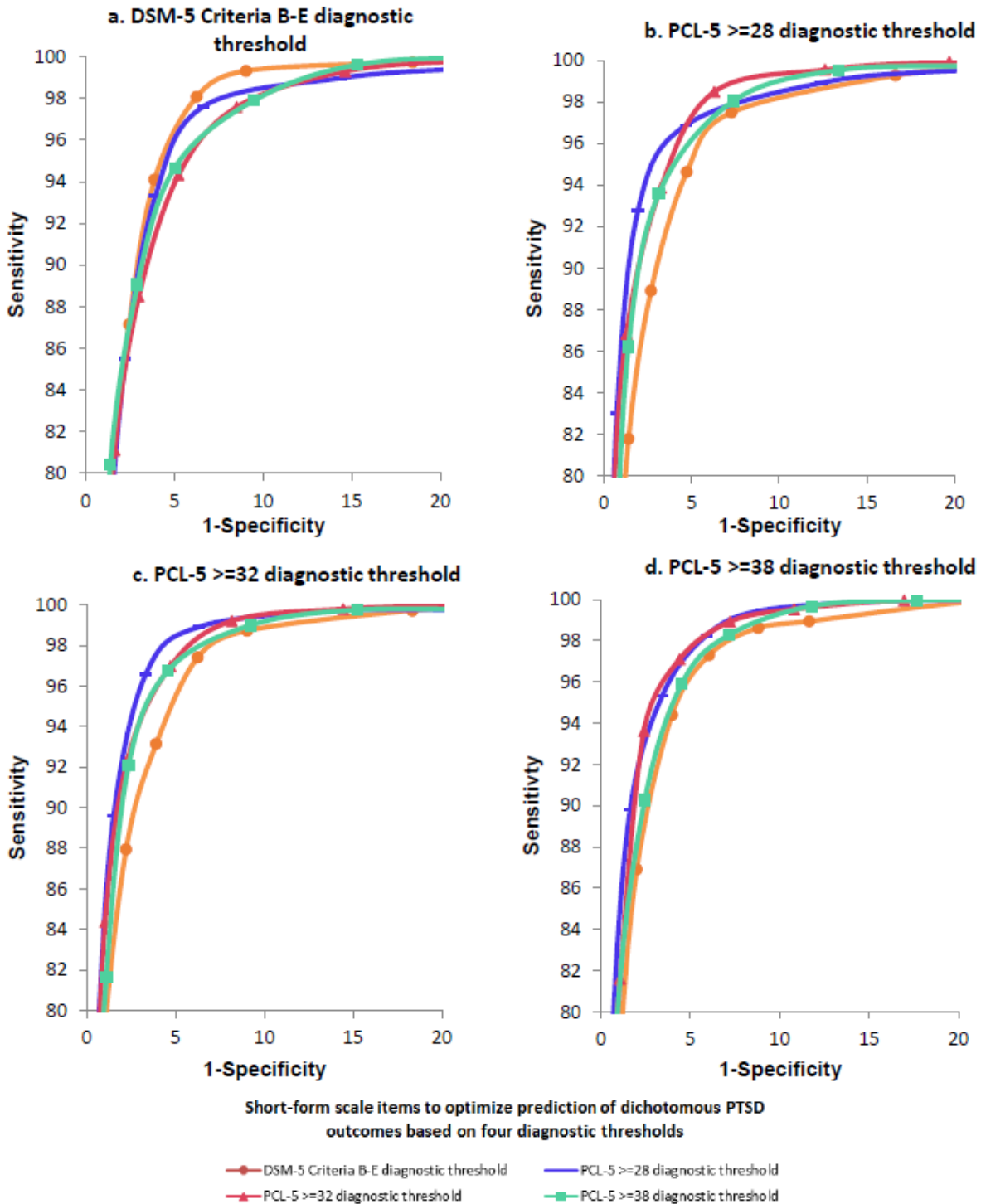
Threshold of scale	% of sample at the threshold	Sensitivity (%) at or above the threshold	Specificity (%) at or above the threshold	PPV (proportion) at the threshold	PPV (proportion) at or above the threshold	AUC at or above the threshold	Net benefit at or above the threshold
I. Outcome defined using the DSM-5 Criteria B-E diagnostic threshold							
0	59.4	100.0	0.0	0.000	0.101	--	0.101
1	8.8	100.0	66.1	0.004	0.248	0.831	0.099
2	6.2	99.6	75.8	0.015	0.315	0.877	0.097
3	4.9	98.7	82.6	0.002	0.388	0.906	0.099
4	6.2	98.6	88.0	0.032	0.480	0.933	0.096
5	2.5	96.6	94.6	0.172	0.669	0.957	0.087
6	1.7	92.4	96.9	0.444	0.771	0.947	0.071
7	1.9	84.7	98.0	0.550	0.827	0.914	0.063
8	1.8	74.2	99.0	0.696	0.890	0.866	0.053
9	1.4	61.9	99.6	0.824	0.942	0.807	0.044
10	1.2	50.7	99.8	0.911	0.973	0.753	0.036
11	0.8	39.3	100.0	0.989	0.992	0.696	0.012
12	1.0	31.4	100.0	0.979	0.993	0.657	0.022
13	0.5	21.6	100.0	1.000	1.000	0.608	0.022
14	0.5	16.2	100.0	1.000	1.000	0.581	0.016
15	0.5	11.1	100.0	1.000	1.000	0.556	0.011
16	0.6	6.3	100.0	1.000	1.000	0.531	0.006
II. Outcome defined using the PCL-5 ≥ 28 diagnostic threshold							
0	59.4	100.0	0.0	0.000	0.116	--	0.116
1	8.8	100.0	67.2	0.006	0.286	0.836	0.114
2	6.2	99.6	77.1	0.011	0.363	0.883	0.113
3	4.9	99.0	84.0	0.013	0.448	0.915	0.113
4	6.2	98.4	89.5	0.040	0.551	0.940	0.110
5	2.5	96.3	96.2	0.195	0.768	0.962	0.103
6	1.7	92.1	98.4	0.526	0.886	0.953	0.092
7	1.9	84.2	99.4	0.835	0.947	0.918	0.070
8	1.8	70.4	99.7	0.884	0.972	0.851	0.064
9	1.4	56.8	100.0	0.981	0.996	0.784	0.052
10	1.2	45.2	100.0	1.000	1.000	0.726	0.052
11	0.8	34.4	100.0	1.000	1.000	0.672	0.040
12	1.0	27.5	100.0	1.000	1.000	0.637	0.032
13	0.5	18.8	100.0	1.000	1.000	0.594	0.022
14	0.5	14.0	100.0	1.000	1.000	0.570	0.016
15	0.5	9.7	100.0	1.000	1.000	0.548	0.011
16	0.6	5.4	100.0	1.000	1.000	0.527	0.006
III. Outcome defined using the PCL-5 ≥ 32 diagnostic threshold							
0	59.4	100.0	0.0	0.000	0.099	--	0.099
1	8.8	100.0	66.0	0.000	0.245	0.830	0.099

2	6.2	100.0	75.7	0.008	0.312	0.879	0.097
3	4.9	99.5	82.5	0.000	0.385	0.910	0.099
4	6.2	99.5	88.0	0.013	0.477	0.937	0.097
5	2.5	98.7	94.7	0.105	0.673	0.967	0.092
6	1.7	96.0	97.2	0.334	0.790	0.966	0.083
7	1.9	90.2	98.5	0.545	0.867	0.943	0.073
8	1.8	79.6	99.4	0.833	0.941	0.895	0.054
9	1.4	64.6	99.8	0.888	0.969	0.822	0.048
10	1.2	52.4	99.9	0.962	0.991	0.762	0.040
11	0.8	40.2	100.0	1.000	1.000	0.701	0.040
12	1.0	32.1	100.0	1.000	1.000	0.661	0.032
13	0.5	21.9	100.0	1.000	1.000	0.610	0.022
14	0.5	16.4	100.0	1.000	1.000	0.582	0.016
15	0.5	11.3	100.0	1.000	1.000	0.557	0.011
16	0.6	6.4	100.0	1.000	1.000	0.532	0.006

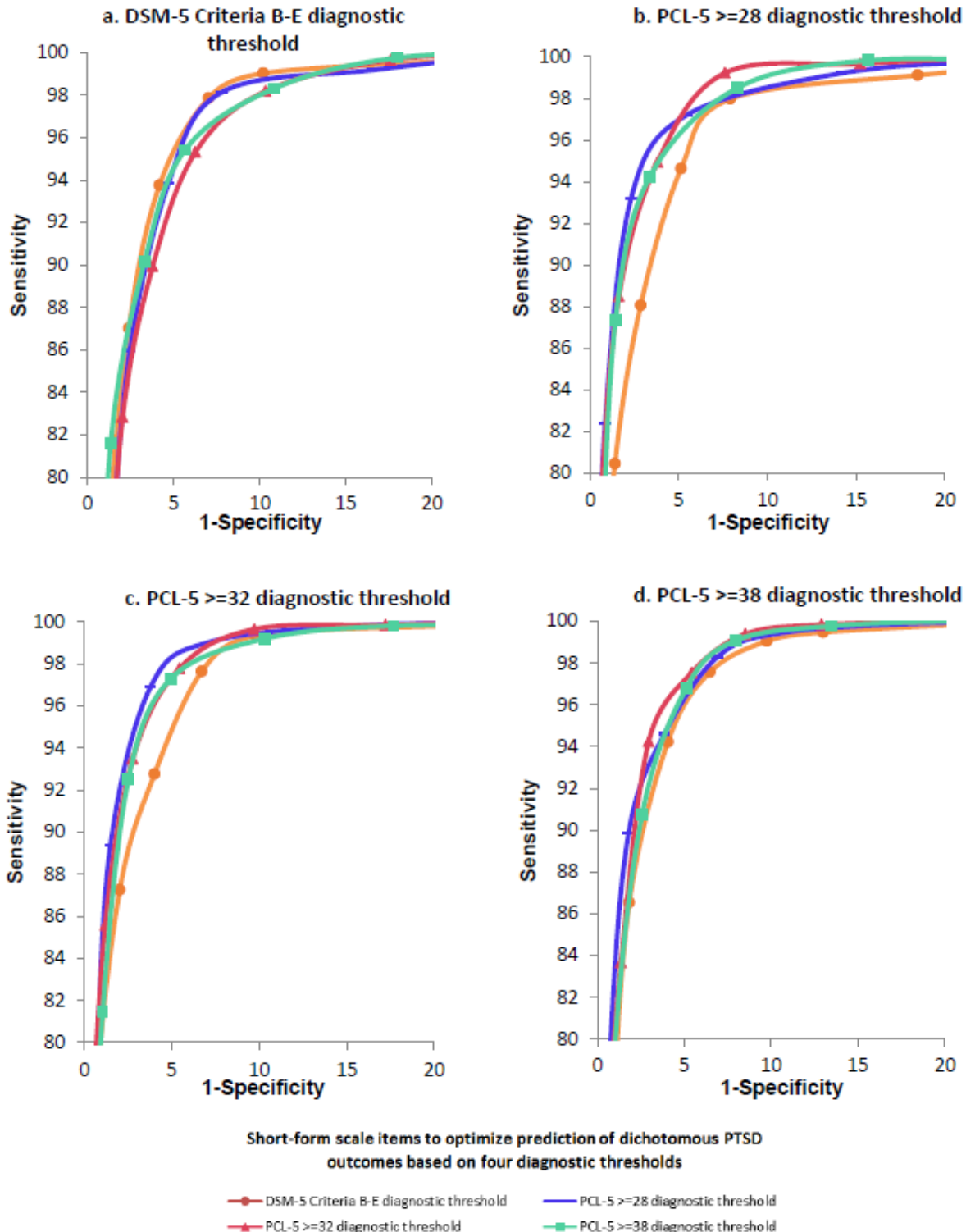
IV. Outcome defined using the PCL-5 >=38 diagnostic threshold

0	59.4	100.0	0.0	0.000	0.078	--	0.078
1	8.8	100.0	64.5	0.000	0.193	0.823	0.078
2	6.2	100.0	74.0	0.000	0.247	0.870	0.078
3	4.9	100.0	80.7	0.000	0.306	0.904	0.078
4	6.2	100.0	86.1	0.006	0.379	0.930	0.078
5	2.5	99.5	92.7	0.044	0.537	0.961	0.075
6	1.7	98.1	95.3	0.063	0.638	0.967	0.074
7	1.9	96.7	97.0	0.284	0.735	0.969	0.065
8	1.8	89.8	98.5	0.524	0.838	0.942	0.055
9	1.4	77.9	99.4	0.737	0.923	0.887	0.047
10	1.2	65.0	99.8	0.913	0.972	0.824	0.036
11	0.8	50.3	100.0	0.980	0.991	0.751	0.021
12	1.0	40.3	100.0	0.979	0.993	0.702	0.022
13	0.5	27.8	100.0	1.000	1.000	0.639	0.022
14	0.5	20.8	100.0	1.000	1.000	0.604	0.016
15	0.5	14.3	100.0	1.000	1.000	0.572	0.011
16	0.6	8.0	100.0	1.000	1.000	0.540	0.006

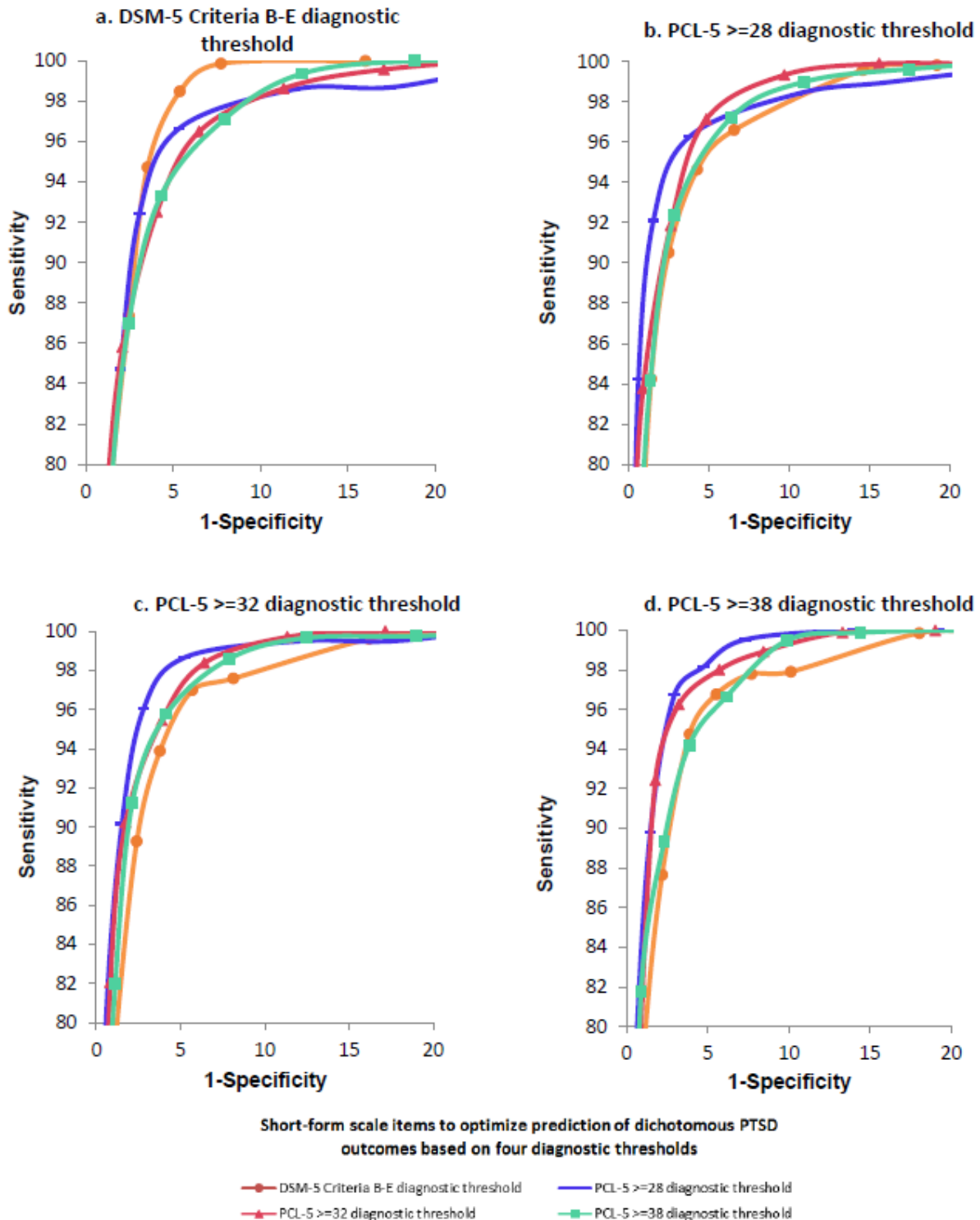
Supplemental Figures 1a-1d. ROC curves for all unweighted stepwise 4-item short-form PCL scales predicting PTSD outcomes in the total validation sample (n = 11,728). The 4-item scales were created using unweighted stepwise regression and items included on each scale were optimized in the training sample to predict dichotomous PTSD outcomes assigned based on full PCL-5 responses using four diagnostic thresholds (DSM-5 Criteria B-E, and total PCL-5 scores ≥ 28 , ≥ 32 , and ≥ 38). We then used each of these 4-item unweighted stepwise short-form scales to predict these same dichotomous PTSD outcomes in the validation sample, as shown in each panel of the figure (a-d).



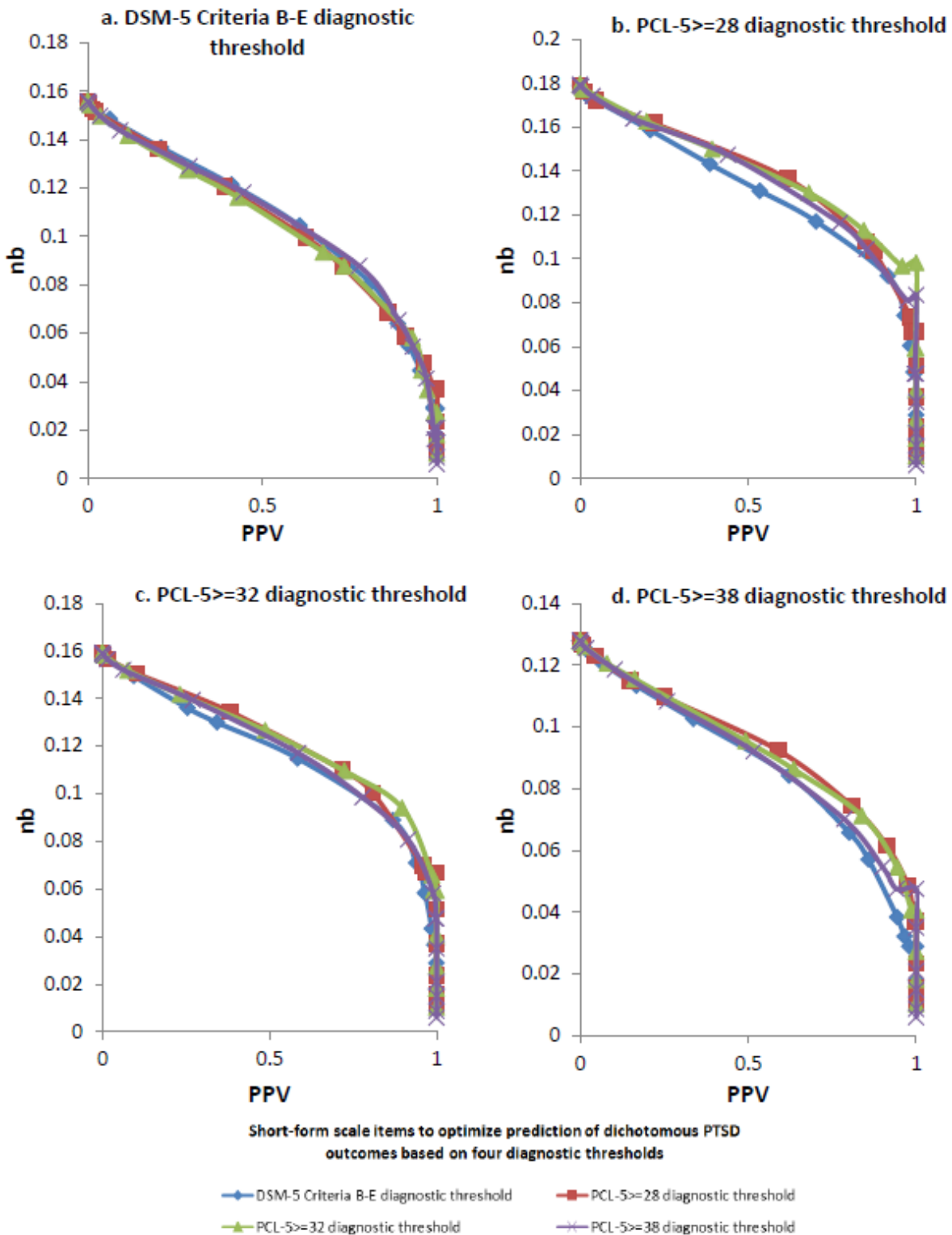
Supplemental Figures 2a-2d. ROC curves for all unweighted stepwise 4-item short-form PCL scales predicting PTSD outcomes in the ever-deployed validation sample (n= 6,280). The 4-item scales were created using unweighted stepwise regression and items included on each scale were optimized in the training sample to predict dichotomous PTSD outcomes assigned based on full PCL-5 responses using four diagnostic thresholds (DSM-5 Criteria B-E, and total PCL-5 scores ≥ 28 , ≥ 32 , and ≥ 38). We then used each of these 4-item unweighted stepwise short-form scales to predict these same dichotomous PTSD outcomes in the validation sample, as shown in each panel of the figure (a-d).



Supplemental Figures 3a-3d. ROC curves for all unweighted stepwise 4-item short-form PCL scales predicting PTSD outcomes in the never-deployed validation subsample (n = 5,448). The 4-item scales were created using unweighted stepwise regression and items included on each scale were optimized in the training sample to predict dichotomous PTSD outcomes assigned based on full PCL-5 responses using four diagnostic thresholds (DSM-5 Criteria B-E, and total PCL-5 scores ≥ 28 , ≥ 32 , and ≥ 38). We then used each of these 4-item unweighted stepwise short-form scales to predict these same dichotomous PTSD outcomes in the validation sample, as shown in each panel of the figure (a-d).



Supplemental Figures 4a-4d. Decision curves for all unweighted stepwise 4-item short-form scales predicting PTSD outcomes in the ever-deployed validation subsample (n = 6,280). The items included on each 4-item scale were optimized in the training sample to predict dichotomous PTSD outcomes assigned based on full PCL-5 responses using four diagnostic thresholds (DSM-5 Criteria B-E, and total PCL-5 scores ≥ 28 , ≥ 32 , and ≥ 38). We then used each of these 4-item unweighted stepwise short-form scales to predict these same dichotomous PTSD outcomes in the validation sample, as shown in each panel of the figure (a-d).



Supplemental Figures 5a-5d. Decision curves for all unweighted stepwise 4-item short-form scales predicting PTSD outcomes in the never-deployed validation subsample (n = 5,448). The items included on each 4-item scale were optimized in the training sample to predict dichotomous PTSD outcomes assigned based on full PCL-5 responses using four diagnostic thresholds (DSM-5 Criteria B-E, and total PCL-5 scores ≥ 28 , ≥ 32 , and ≥ 38). We then used each of these 4-item unweighted stepwise short-form scales to predict these same dichotomous PTSD outcomes in the validation sample, as shown in each panel of the figure (a-d).

