

Supplemental Table 1. Distribution of suicidal ideation proportional persistence by years since ideation onset relative to interview

Proportion of years with suicidal thoughts	Ideation onset (relative to age at survey)						Total
	2-4	5-7	8-10	11-15	16+		
	% (SE)	% (SE)	% (SE)	% (SE)	% (SE)	% (SE)	% (SE)
I. Pre-enlistment onsets							
0	71.3 (4.1)	51.6 (4.0)	41.4 (3.4)	43.3 (2.9)	39.7 (2.8)	44.9 (1.5)	
1-10	0.0 -	0.0 -	5.2 (1.5)	11.8 (1.9)	12.6 (2.1)	8.2 (0.9)	
11-20	0.0 -	17.2 (3.8)	12.6 (2.3)	10.8 (2.0)	13.2 (2.1)	12.0 (1.0)	
21-30	6.6 (1.7)	2.4 (0.8)	10.1 (2.8)	8.0 (2.0)	11.3 (1.2)	8.5 (0.9)	
31-40	4.2 (2.0)	3.8 (2.2)	4.1 (1.0)	9.5 (2.3)	5.1 (1.4)	5.9 (0.9)	
41-50	8.2 (3.0)	3.6 (1.9)	8.6 (2.8)	3.1 (1.0)	3.0 (0.8)	4.6 (0.6)	
51-60	0.0 -	6.7 (1.7)	1.7 (0.9)	2.0 (0.8)	3.5 (1.0)	3.0 (0.6)	
61-70	0.9 (0.6)	0.8 (0.6)	1.8 (0.7)	1.9 (0.6)	1.7 (0.7)	1.6 (0.3)	
71-80	1.6 (0.9)	2.7 (0.8)	4.4 (1.6)	2.1 (0.7)	1.0 (0.4)	2.2 (0.4)	
81-90	0.0 -	7.7 (2.1)	6.9 (1.8)	1.6 (0.5)	2.2 (0.7)	3.5 (0.5)	
91-100	7.2 (3.2)	3.6 (1.2)	3.2 (1.2)	4.4 (1.0)	6.7 (0.8)	5.0 (0.6)	
Total, median/IQR ¹	50 (33-100)	43 (20-80)	33 (13-70)	27 (13-43)	24 (12-52)	29 (15-57)	
(n)	(n=227)	(n=456)	(n=573)	(n=611)	(n=710)	(n=2577)	
II. Post-enlistment onsets							
0	67.9 (3.6)	41.9 (4.4)	50.8 (8.4)	49.0 (7.4)	31.4 (12.9)	39.7 (2.4)	
1-10	0.0 -	0.0 -	1.1 (0.7)	6.7 (2.5)	15.7 (3.8)	1.6 (0.3)	
11-20	0.0 -	12.2 (4.4)	5.9 (2.7)	8.9 (4.0)	18.2 (8.7)	4.6 (1.0)	
21-30	4.7 (2.2)	3.1 (1.7)	7.3 (6.7)	5.7 (3.6)	13.0 (10.2)	4.0 (1.0)	
31-40	4.5 (1.4)	11.2 (2.7)	10.1 (6.2)	0.8 (0.8)	6.4 (6.0)	4.8 (1.0)	
41-50	6.2 (1.5)	4.8 (1.9)	5.7 (4.8)	5.8 (3.0)	1.6 (2.6)	3.9 (0.9)	
51-60	0.0 -	3.7 (1.4)	0.9 (0.9)	2.2 (2.0)	0.0 -	0.9 (0.3)	
61-70	4.2 (1.0)	0.8 (0.7)	7.2 (4.5)	9.6 (6.7)	0.0 -	3.0 (0.9)	
71-80	5.3 (2.3)	7.4 (2.0)	1.2 (1.0)	3.1 (1.1)	0.0 -	3.4 (0.8)	
81-90	0.0 -	4.2 (1.3)	6.4 (2.4)	3.0 (2.2)	0.0 -	1.6 (0.4)	
91-100	7.1 (1.6)	10.8 (3.5)	3.5 (2.7)	6.4 (3.5)	13.7 (4.3)	5.8 (0.9)	
Total, median/IQR ¹	67 (33-75)	43 (29-83)	44 (25-70)	45 (19-67)	23 (11-40)	50 (25-80)	
(n)	(n=448)	(n=225)	(n=116)	(n=87)	(n=48)	(n=924)	

*Significant at the .05 level, two-sided test

¹Estimates represents median and interquartile range values of the proportion of years with suicidal thoughts among lifetime ideators with greater than 0% of years with suicidal thoughts.

Supplemental Table 2. Interaction testing of the predictors of lifetime suicide ideation proportional persistence among respondents with a pre-enlistment onset that began at least 2 years before interview (n=2,577)

Predictors	Prevalence ¹ %		Main effects		Interaction 1		Interaction 2		Interaction 3	
	(mean)	(SE)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Ideation onset (in decades)	1.5	(0.0)	0.4*	(0.3-0.7)	1.0	(1.0-1.1)	1.0	(1.0-1.1)	1.0	(1.0-1.0)
Demographics, as of ideation onset										
Race: Non-Hispanic Black (vs. Non-Hispanic White)	13.3	(1.2)	1.2	(0.9-1.7)	0.9	(0.4-2.2)	1.2	(0.4-3.6)	1.0	(0.8-1.1)
Race: Hispanic (vs. Non-Hispanic White)	9.4	(1.2)	0.6*	(0.4-1.0)	1.4	(0.6-3.0)	1.1	(0.5-2.4)	1.0	(0.9-1.2)
Race: Other (vs. Non-Hispanic White)	6.9	(0.7)	1.1	(0.8-1.7)	1.3	(0.4-4.0)	1.5	(0.4-5.9)	0.9	(0.8-1.1)
F ₃			2.1	0.10	0.3	0.86	0.3	0.84	0.4	0.73
Mental disorders, as of ideation onset										
Attention-deficit/hyperactivity disorder	6.0	(0.6)	2.1*	(1.1-4.1)	0.6	(0.1-2.7)	0.8	(0.1-5.4)	1.1	(0.9-1.2)
Bipolar disorder	2.9	(0.4)	2.0*	(1.1-3.7)	1.0	(0.3-4.0)	0.8	(0.1-4.4)	0.9	(0.8-1.1)
Panic disorder	3.4	(0.6)	1.3	(0.7-2.5)	2.8	(0.9-8.8)	0.5	(0.1-2.0)	1.0	(0.8-1.2)
F ₃			4.5*	0.004	0.9	0.43	0.1	0.95	0.4	0.78
F ₇					0.5	0.84	0.4	0.91	0.5	0.83

*Significant at the .05 level, two-sided test

Note: The interaction model included three separate interactions by each of the 8 predictors in the final reduced multivariate model. The first interaction was a shadow dummy indicating the 2nd and higher data stacks (i.e., ≥ 1% of years with suicidal thoughts) vs. the 1st data stack (i.e., 0% of years with suicidal thoughts). The second interaction was a shadow dummy indicating the 3rd and higher data stacks (i.e., ≥ 11% of years with suicidal thoughts) vs. the 1st and 2nd data stacks (i.e., ≤ 10% of years with suicidal thoughts). The third interaction was a shadow continuous variable indicating each data stacks higher than the 3rd (i.e., values=4-11) vs. the 1st, 2nd, and 3rd data stacks (i.e., values=0). A global test of significance for the 3 interaction terms by the 7 predictors in the final reduced multivariate model was not significant (F₂₁=0.9, p=.55). Model estimates reflect weighted and multiply imputed data.

¹Prevalence estimates were computed from a person-level dataset and measured at the year of ideation onset per respondent. Prevalence estimates reflect weighted data.

Supplemental Table 3. Predictors of lifetime suicide ideation persistence among respondents with a post-enlistment onset that began at least 2 years before interview (n=924)

Predictors	Prevalence ¹ %		Main effects		Interaction 1		Interaction 2		Interaction 3	
	(mean)	(SE)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Ideation onset (in decades)	2.6	(0.1)	1.0	(0.7-1.4)	1.0	(0.9-1.1)	1.1	(1.0-1.3)	1.0	(1.0-1.0)
Army characteristics, as of ideation onset										
MOS: combat arms (vs. combat service support)	30.7	(2.5)	0.8	(0.4-1.5)	0.4	(0.1-2.0)	4.1	(0.6-29.5)	1.0	(0.9-1.1)
MOS: combat support (vs. combat service support)	25.2	(2.1)	1.0	(0.7-1.5)	5.6	(0.8-40.0)	0.6	(0.1-5.5)	1.0	(0.8-1.1)
F ₂			0.3	0.78	2.4	0.09	1.3	0.27	0.1	0.94
Demographics, as of ideation onset										
Sex: female (vs. male)	14.8	(1.8)	0.7	(0.4-1.2)	3.3	(0.4-25.7)	0.2	(0.0-2.1)	1.1	(0.9-1.4)
Mental disorders, as of ideation onset										
Attention-deficit/hyperactivity disorder	14.3	(2.1)	1.9*	(1.1-3.2)	1.2	(0.1-17.8)	3.1	(0.1-76.6)	0.8	(0.6-1.0)
Panic disorder	10.2	(1.4)	2.6*	(1.7-4.0)	2.8	(0.3-24.2)	0.3	(0.0-2.7)	0.9*	(0.8-1.0)
Post-traumatic stress disorder	47.4	(2.6)	1.4	(0.9-2.2)	2.2	(0.3-14.7)	0.6	(0.1-5.2)	1.0	(0.9-1.2)
F ₃			13.2*	<.001	0.9	0.47	0.5	0.67	3.0*	0.031
F ₇					1.1	0.35	1.1	0.36	1.7	0.11

*Significant at the .05 level, two-sided test

Note: The interaction model included three separate interactions by each of the 8 predictors in the final reduced multivariate model. The first interaction was a shadow dummy indicating the 2nd and higher data stacks (i.e., ≥ 1% of years with suicidal thoughts) vs. the 1st data stack (i.e., 0% of years with suicidal thoughts). The second interaction was a shadow dummy indicating the 3rd and higher data stacks (i.e., ≥ 11% of years with suicidal thoughts) vs. the 1st and 2nd data stacks (i.e., ≤ 10% of years with suicidal thoughts). The third interaction was a shadow continuous variable indicating each data stacks higher than the 3rd (i.e., values=4-11) vs. the 1st, 2nd, and 3rd data stacks (i.e., values=0). A global test of significance for the 3 interaction terms by the 7 predictors in the final reduced multivariate model was significant (F₂₁=2.7*, p<.001). A global test of significance for the 3 interaction terms by the 6 predictors for MOS, sex, and mental disorder constructs was significant (F₁₈=2.1*, p=.005). A global test of significance for the 3 interaction terms by the 1 predictor for ideation onset age was not significant (F₃=1.8, p=.14). Model estimates reflect weighted and multiply imputed data.

¹Prevalence estimates were computed from a person-level dataset and measured at the year of ideation onset per respondent. Prevalence estimates reflect weighted data.

Supplemental Table 4. Interactions of post vs. pre-enlistment ideation onset with predictors of proportional persistence among respondents with an onset that began at least 2 years before interview, consolidated AAS (n=3,501)

	Additive terms		Interaction terms	
	OR	CI	OR	CI
Ideation onset (in decades)	0.53*	(0.37-0.72)	1.09*	(1.04-1.14)
Active ideation (vs. passive)	1.25	(0.95-1.65)	0.98	(0.59-1.60)
Demographics, as of ideation onset				
Sex: female (vs male)	1.02	(0.79-1.32)	0.67	(0.39-1.14)
Race: Non-Hispanic Black (vs. Non-Hispanic white)	1.21	(0.87-1.68)	0.65	(0.40-1.06)
Race: Hispanic (vs. Non-Hispanic White)	0.74	(0.50-1.08)	0.85	(0.47-1.53)
Race: Other (vs. Non-Hispanic White)	1.35	(0.91-2.03)	0.56	(0.28-1.11)
Mental disorders, as of ideation onset				
MDE	1.18	(0.91-1.52)	0.89	(0.58-1.36)
GAD	1.17	(0.90-1.52)	0.79	(0.48-1.30)
PTSD	0.98	(0.74-1.29)	1.61*	(1.13-2.30)
BPD	1.61*	(1.01-2.58)	0.77	(0.36-1.62)
Panic	1.51*	(1.02-2.25)	0.86	(0.45-1.63)
IED	1.11	(0.93-1.32)	1.07	(0.77-1.50)
ADHD	1.52*	(1.07-2.15)	1.36	(0.84-2.22)
Substance	0.68	(0.45-1.03)	1.60	(0.90-2.87)
F ₁₄			4.4*	<.001

Note. Estimates reflect weighted and multiply imputed data. The 10 predictors for the 9 dummy variables for the 9 transitions, the 1 single continuous variable for years since onset, and the dummy predictor for pre vs post-enlistment onset were not shown in the table.