

Supplemental Table S1

Summary of existing research using versions of the ACSS

Authors, year	N	Version	α	Findings
Van Orden et al., 2008	228 adult outpatients; 153 adult outpatients	5-item	.67; .68	PPES significantly predicted ACSS, controlling for age, gender, BDI, BSS; ACSS interacted with INQ-Perceived Burdensomeness to predict clinician-rated risk
Bryan et al., 2010	522 service members	5-item	.71	Greater combat exposure predicts ACSS, beyond depression, PTSD, and previous suicidality
Bryan et al., 2010	88 active-duty US Air Force personnel; 309 undergraduates; 228 adult outpatients	5-item	NR	Active duty personnel had higher level of acquired capability than civilians; ACSS interacted with burdensomeness to predict suicidal history
Davidson et al., 2010a	129 undergraduates	5-item	NR	ACSS associated with having higher levels of hope
Davidson et al., 2010b	115 African-American undergraduates	20-item	.84	Hope significantly predicted ACSS; Interaction of INQ-Thwarted Belongingness, INQ-Perceived Burdensomeness and ACSS associated with suicidal ideation
Smith et al., 2010	15 suicide ideators; 15 suicide attempters; 14 non-suicidal controls	20-item	.88	Suicide attempters had greater ACSS scores than ideators; no significant difference between attempters and controls on ACSS; no significant difference in startle response to suicide-related imagery compared to neutral imagery
Anestis et al., 2011	200 undergraduates	20-item	NR	Males demonstrated higher levels of acquired capability than women; distress tolerance interacted with sex to predict ACSS, such that males with highest distress tolerance were at greatest risk
Anestis et al., 2011	283 undergraduates	20-item	.84	ACSS associated with negative urgency but not distress tolerance; high distress tolerance associated with high physical pain tolerance
Anestis & Joiner, 2011	492 adult outpatients	6-item	.65	4-way interaction of negative urgency and three components of the theory predicting suicide attempts, controlling for depression and sex
Anestis et al., 2011	358 adult outpatients	5-item	.63	Painful and provocative dysregulated behaviors fully accounted for the relationship between negative urgency and acquired capability.
Bender et al., 2011	182 undergraduates; 516 adult outpatients	20-item; 6-item	.83; .90	Impulsivity indirectly related to acquired capability (measured using ACSS and pain tolerance) through PPES
Bryan & Anestis, 2011	157 military personnel	5-item	.66	Re-experiencing symptoms of PTSD have direct association with ACSS
Bryan & Cukrowicz, 2011	348 US Air Force deployed personnel	5-item	.66	ACSS was associated with all forms of combat exposure; combat exposure involving aggression and high levels of exposure to death and injury demonstrate stronger associations with ACSS compared to combat experiences not involving exposure to death
Davidson & Wingate, 2011	129 undergraduates; 115 African-American undergraduates	5-item	.66; .67	Males demonstrated significantly higher levels of ACSS
Franklin et al., 2011	67 young adults	20-item	NR	ACSS associated with pain threshold and pain intensity at tolerance; NSSI associated

Freedenthal et al., 2011	785 undergraduates	5-item	.72	with higher ACSS scores and decreased pain perception; pain tolerance mediates relationship between painful and provocative events and ACSS scores Correlation ($r=.13$) between Perceived Burdensomeness subscale of 12 item version of INQ
Gordon et al., 2011	210 undergraduates	20-item	.81	Number of hours spent volunteering for Red River flood efforts significantly predicted ACSS in the positive direction
Rasmussen & Wingate, 2011	452 undergraduates	20-item	.83	Suicidal ideation was not significantly associated with ACSS
Anestis & Joiner, 2012	283 undergraduates	20-item	.84	Distress tolerance was positively associated with ACSS; distress tolerance and exposure to painful and/or provocative experiences significantly predicted acquired capability, with strength of association increasing at higher levels of distress tolerance
Bryan et al., 2013	133 military, 4 civilian TBI outpatients;	5-item	.72; NR	INQ-Perceived burdensomeness and ACSS were associated with increased suicidality and the relationship between suicidality and ACSS strengthened as perceived burdensomeness increased in both samples
Fink et al., 2012	55 military outpatients 342 female outpatients	5-item	.67	As expect, significant negative relationship existed between anxiety sensitivity-physical concerns was associated with acquired capability; anxiety physical concerns moderate the relationship between disordered eating and ACSS, controlling for BDI, BAI, UPPS-Urgency
Smith et al., 2012	171 undergraduates; 467 undergraduates; 512 undergraduates	20-item; 20-item; 8-item	.85; .82; .73	Greater over-exercise predicted ACSS scores at follow-up; pain insensitivity accounted for relationship between over-exercise and ACSS; ACSS scores accounted for relationship between over-exercise and suicidal behavior
Witte et al., 2012	185 undergraduates; 378 undergraduates	7-item	.86; .75	Men demonstrated higher fearlessness about death and pain tolerance than women; stoicism accounted for the relationship between gender and pain insensitivity; sensation seeking accounted for relationship between gender and fearlessness about death
Witte et al., 2013	130 veterinary students	7-item	.85	Experience with euthanasia is associated with fearlessness about death but not physical pain tolerance among veterinary students
Bryan et al., 2013	348 nonclinical active-duty military; 219 active-duty military outpatients	5-item	.66; .69	Greater combat exposure was directly associated with ACSS scores and PTSD symptom severity in both samples but failed to show either an effect on suicide risk
Smith et al., 2013	399 male adult inmates	20-item	NR	Four-factor model provided best statistical fit to ACSS data in male prison inmates

Note. ACSS = Acquired Capability for Suicide Scale; PTSD = Post-traumatic Stress Disorder; PPES = Painful and Provocative Events Scale; BDI = Beck Depression Inventory; BAI = Beck Anxiety Inventory; INQ = Interpersonal Needs Questionnaire; BSS = Beck Scale for Suicidal Ideation; DSI-SS = Suicidality Subscale of the Depressive Symptoms Index; UPPS-Urgency = Negative Urgency subscale of the Urgency, (lack of) Planning, (lack of) Premeditation, Sensation Seeking scale; NR = Not reported.

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Supplemental Table S2

Acquired Capability for Suicide Scale Items

Items
1. Things that scare most people do not scare me.
2. The sight of my own blood does not bother me.
3. I avoid certain situations (e.g., certain sports) because of the possibility of injury. (R)
4. I can tolerate a lot more pain than most people.
5. People describe me as fearless.
6. The sight of blood bothers me a great deal. (R)
7. <i>The fact that I am going to die does not affect me.</i>
8. <i>The pain involved in dying frightens me. (R)</i>
9. Killing animals in a science course would not bother me.
10. <i>I am very much afraid to die. (R)</i>
11. <i>It does not make me nervous when people talk about death.</i>
12. The sight of a dead body is horrifying to me. (R)
13. <i>The prospect of my own death arouses anxiety in me. (R)</i>
14. <i>I am not disturbed by death being the end of life as I know it.</i>
15. I like watching the aggressive contact in sports games.
16. The best parts of hockey games are the fights.
17. When I see a fight, I stop to watch.
18. I prefer to shut my eyes during the violent parts of movies. (R)
19. <i>I am not at all afraid to die.</i>
20. I could kill myself if I wanted to. (Even if you have never wanted to kill yourself, please answer the question.)

Note. Items in bold and italicized comprise the Acquired Capability for Suicide Scale – Fearlessness About Death (ACSS-FAD); (R) denotes a reverse-scored item.

Supplemental Table S3

Summary of Information Regarding Convenience Samples

Sample	Primary Source	Original Research Aims	N	ACSS-FAD		Current Study Aims Addressed
				M (SD)	α	
1	Teale, 2010	Effects of social exclusion on self-injurious behavior	227 young adults	15.11 (6.54)	.82	Aim 1: Measurement model development
2	Bender et al., 2011	Relationship between impulsivity & suicidal behavior	257 young adults	14.98 (6.11)	.77	Aim 1: Measurement model development Aim 3: Convergent/Discriminant validity
3	Van Orden, 2009	Measure development of the Interpersonal Needs Questionnaire	723 young adults	14.18 (6.29)	.83	Aim 1: Measurement model development Aim 2: Measurement invariance
4	Witte, Ribeiro, & Joiner, 2010	Relationship between personality, pain perception, & suicidality	193 young adults	13.24 (6.31)	.85	Aim 3: Convergent/Discriminant validity
5	Ribeiro & Joiner, 2013	Factors of acute suicide risk	67 adult inpatients	15.67(7.56)	.81	Aim 3: Convergent/Discriminant validity

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Supplemental Table S4

Descriptive Statistics and Inter-Item Correlations, Samples 1-5

Item	Content	1	2	3	4	5	6	7	M	SD	Skew	Kurtosis
<u>Sample 1(n=227)</u>												
ACSS 7	Death as fact	1.00							1.95	1.25	.05	-.92
ACSS 8	Pain in dying	.19**	1.00						2.14	1.37	-.09	-1.21
ACSS 10	Afraid to die	.53**	.49**	1.00					2.45	1.32	-.49	-.85
ACSS 11	Death talk	.36**	.12*	.26**	1.00				2.33	1.37	-.26	-1.18
ACSS 13	Death anxiety	.39**	.49**	.65**	.20**	1.00			2.47	1.27	-.36	-1.01
ACSS 14	End of life	.47**	.19**	.35**	.38**	.28**	1.00		2.06	1.37	-.15	-1.17
ACSS 19	Lack death fear	.58**	.37**	.62**	.45**	.46**	.44**	1.00	1.70	1.29	.31	-.97
								Total	15.11	6.54	-.09	-.61
<u>Sample 2 (n=257)</u>												
ACSS 7	Death as fact	1.00							1.16	1.15	.46	-1.25
ACSS 8	Pain in dying	.14**	1.00						1.30	1.13	.26	-1.32
ACSS 10	Afraid to die	.44**	.45**	1.00					1.59	1.11	-.06	-1.35
ACSS 11	Death talk	.33**	.26**	.25**	1.00				2.31	1.40	-.30	-1.17
ACSS 13	Death anxiety	.33**	.43**	.60**	.34**	1.00			1.47	1.05	.01	-1.21
ACSS 14	End of life	.24**	.13**	.32**	.32**	.25**	1.00		1.09	1.09	.49	-1.11
ACSS 19	Lack death fear	.51**	.33**	.58**	.27**	.52**	.32**	1.00	1.00	1.05	.65	-.85
								Total	14.98	6.11	-.25	-.17
<u>Sample 3 (n=723)</u>												
ACSS 7	Death as fact	1.00							1.88	1.31	.08	-1.05
ACSS 8	Pain in dying	.34**	1.00						2.35	1.25	.03	-1.09
ACSS 10	Afraid to die	.39**	.32**	1.00					1.84	1.31	-.28	-.96
ACSS 11	Death talk	.61**	.39**	.44**	1.00				1.57	1.26	-.30	-.88
ACSS 13	Death anxiety	.29**	.30**	.20**	.39**	1.00			1.97	1.31	-.24	-.99
ACSS 14	End of life	.54**	.38**	.37**	.62**	.52**	1.00		2.25	1.29	.09	-1.10
ACSS 19	Lack death fear	.43**	.29**	.27**	.47**	.42**	.54**	1.00	2.33	1.27	.34	-.89
								Total	14.18	6.29	-.14	-.47
<u>Sample 4 (n=193)</u>												
ACSS 7	Death as fact	1.00							1.72	1.21	.34	-.72
ACSS 8	Pain in dying	.41**	1.00						1.93	1.23	.18	-.91
ACSS 10	Afraid to die	.54**	.56**	1.00					2.10	1.26	-.16	-.97
ACSS 11	Death talk	.46**	.35**	.47**	1.00				2.16	1.22	-.05	-1.04
ACSS 13	Death anxiety	.38**	.44**	.60**	.43**	1.00			2.19	1.23	-.19	-.89

ACSS 14	End of life	.33**	.25**	.37**	.32**	.25**	1.00		1.72	1.30	.30	-.98
ACSS 19	Lack death fear	.61**	.52**	.68**	.48**	.48**	.45**	1.00	1.46	1.23	.42	-.86
								Total	13.24	6.31	.06	-.51
<u>Sample 5 (n=67)</u>												
ACSS 7	Death as fact	1.00							2.18	1.70	-.21	-1.68
ACSS 8	Pain in dying	.11	1.00						2.08	1.62	-.04	-1.63
ACSS 10	Afraid to die	.32**	.64**	1.00					2.55	1.55	-.52	-1.21
ACSS 11	Death talk	.61**	.03	.29**	1.00				2.12	1.60	-.07	-1.57
ACSS 13	Death anxiety	.24*	.56**	.53**	.16	1.00			2.55	1.48	-.53	-1.17
ACSS 14	End of life	.58**	.13	.27	.43**	.11	1.00		2.30	1.55	-.22	-1.49
ACSS 19	Lack death fear	.67**	.27*	.42**	.53**	.32**	.56**	1.00	2.13	1.66	-.14	-1.63
								Total	15.67	7.56	.17	-.98

Note. * p<.05; **p<.01.

Supplemental Table S5

Factor Loadings, Standardized Residuals, and Communalities for Single Group CFAs (Sample 3)

Item	Content	Standardized Loadings			Standardized Residuals			h ²
		Estimate	S.E.	Est./S.E.	Estimate	S.E.	Est./S.E.	
Females (n=401)								
ACSS 7	Death as fact	.74	.03	23.26	.45	.05	9.42	.55
ACSS 8	Pain in dying	.55	.05	10.93	.70	.06	12.50	.30
ACSS 10	Afraid to die	.76	.03	27.72	.42	.05	8.49	.58
ACSS 11	Death talk	.50	.05	9.88	.75	.05	14.77	.25
ACSS 13	Death anxiety	.67	.04	17.15	.55	.05	10.64	.45
ACSS 14	End of life	.52	.05	10.09	.73	.05	13.77	.27
ACSS 19	Lack death fear	.83	.02	40.13	.31	.03	9.20	.69
Males (n=322)								
ACSS 7	Death as fact	.62	.05	13.03	.62	.06	10.31	.39
ACSS 8	Pain in dying	.52	.06	8.91	.73	.06	12.23	.27
ACSS 10	Afraid to die	.84	.03	28.62	.29	.05	5.96	.71
ACSS 11	Death talk	.46	.06	7.76	.79	.06	14.39	.21
ACSS 13	Death anxiety	.55	.06	9.33	.70	.06	10.85	.30
ACSS 14	End of life	.45	.06	7.62	.80	.05	15.25	.20
ACSS 19	Lack death fear	.73	.04	20.12	.47	.05	8.80	.53

Note. All parameters are statistically significant with a cutoff of Est/S.E. = 1.96.