Contrasting Efficacy of Clinician Judgement and Self-Report of Suicide Risk in a sample of Veterans receiving outpatient treatment

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ONE TRIBE FOUNDATION

Creating a community that raises awareness and combats suicide by empowering veterans, first responders, medical frontline workers and their families through traditional and non-traditional therapies

Introduction

RATIONALE

- Over 89,000 veterans committed suicide between 2005 and 2018 (Department of Veteran Affairs, 2020). Suicide recently surpassed combat-related deaths in post-911 veterans (Suitt, 2021) and constitutes a major health epidemic.
- Clinician judgement serves as a common measure for suicidality because of ease of use; however, concerns over the accuracy of clinical judgement are well known (Aegisdottir et al., 2006).
- Because of the alarming suicide rate among veterans, accurate assessment of suicidality is pivotal.

STUDY OBJECTIVE

- This study examines the accuracy of clinician judgement of licensed therapists who work regularly with Veterans by comparing their judgement of risk to validated the Suicide Behaviors Questionnaire-Revised (SBQ-R) levels of risk.

Method

PARTICIPANTS

- 246 Veterans
- 76% Male
- 38.8 years old (SD = 10.97; Min. 18, Max. 88)
- White (65.8%), Black (15.2%), Hispanic (11.8%), Other (7.2%)
- HS/GED (33.8%), Some College (27.7), Associates (15.1%), Bachelors (18.5%), Other (5%)
- 88.5% Honorably Discharged
- Army (42.5%), Marines (21.9%), Navy (17.2%) Air Force (16.7%), Other (1.8%)
- 46% Combat Deployment
- 7.7 Years Served (SD = 6.18)

PROCEDURE

- Assessment was performed at clinical intake of an outpatient (non-VA) mental health treatment program for Veterans and First responders. Participants were restricted to only Veterans
- During the clinical interview, licensed clinicians rated perceptions of client suicidality as mild, moderate, or severe based on their clinical judgement. Suicidality was also assessed via the Suicide Behaviors Questionnaire-Revised (SBQ-R)
- Clinician judgement was compared across contrasting levels of validated risk as identified on the SBQ-R. Higher sensitivity (indicating better detection of potential suicidality) was prioritized during interpretation.

Results

ANOVA

Measure	f	df	p	M	SD	% ≥ 11 (RCS)
SBQ-R	127.19	3, 210	< .001	5.7	3.6	15.7%

Note. F = ANOVA f-statistic, df = degrees of freedom, M = Mean, SD = Standard Deviation, RCS = Recommended Cut Score

	LSD Post-Hoc					
	None *v* Mild	None *v* Moderate	None *v* Severe	Mild *v* Moderate	Mild *v* Severe	Moderate *v* Severe
Mdiff	-2.389	-5.71	-9.64	-3.321	-7.251	-3.93
p	<.001	<.001	<.001	<.001	<.001	<.001
Stnd Error	0.372	0.475	0.569	0.534	0.619	0.686
Higher Scoring Group	Mild	Moderate	Severe	Moderate	Severe	Severe
Cohen's *d* (95% CI)	1.09	2.55	4.84	1.61	4.06	2.12

Note. Mdiff = mean difference *p* = significance value, Stnd Error = Standard Error, d = Cohen's d effect size [see Cohen, 1988] .2 to .5 small, .5 to .8 medium, and ≥.8 large. 95% CI = 95% confidence Interval

Correlations

Clinician Judgement (CJ) * Intake SBQ-R r = .798, p < .001

CJ at Intake * SBQ-R Session 6 r = .680, p < .001

CJ at Intake * SBQ-R Session 12 r = .607, p < .001

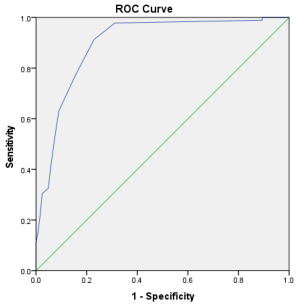
Mild+ Risk (CJ) * Intake SBQ-R Clinical Risk (Cut score = 11) τ = .38 , p < .001

Moderate+ Risk (CJ) * Intake SBQ-R Clinical Risk (Cut score = 11) τ = .69 , p < .001

Severe Risk (CJ) * Intake SBQ-R Clinical Risk (Cut score = 11) τ = .71 , p < .001

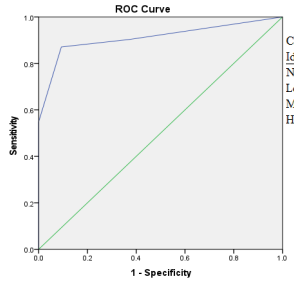
ROC Curve

Area Under the Curve [AUC] = .897 (95% CI .854 to.940) between none and some clinician identified risk



	Any Risk v No Risk	
SBQ-R Score	Sensitivity	Specificity
0.5	1.00	.09
1.5	1.00	.11
2.5	.99	.11
3.5	.98	.69
4.5	.91	.77
5.5	.77	.84
6.5	.63	.91
7.5	.52	.93
8.5	.40	.94
9.5	.33	.95
10.5	.30	.98
11.5	.22	.98
12.5	.15	.99
13.5	.11	1.00
14.5	.05	1.00
15.5	.01	1.00
17	.00	1.00

For comparison, Area Under the Curve [AUC] = .911 (95% CI .836 to.986) between SBQ-R clinical cutoff and levels of risk



	SBQ-R Elevation v Non-Elevation	
Clinician Identified Risk	Sensitivity	Specificity
None	.90	.63
Low	.87	.91
Moderate	.55	1.00
High	.00	1.00

Moderation Analyses

Combat Deployment

Moderation by Deployment Status for Subjective Suicide Risk on SBQ-R

$F(3, 210) = 123.93, p < .001, R^2 = .64$

Predictor	*B*	*SE*	95% *CI*	*t*	*df*	*p*
Constant	3.47	.25	[2.98, 3.96]	13.88	210	<.001
Clinician Subjective Risk	3.21	.22	[2.78, 3.64]	14.67	210	<.001
Combat deployment	.22	.38	[-.53, .97]	.57	210	.57
Subjective Risk X Deployment	-.37	.32	[-.99, .25]	-1.17	210	.24

Discharge Status

Moderation by Discharge Type by Subjective Risk on SBQ-R

$F(5, 60) = 9.21, p < .001, R^2 = .43$

Predictor	*B*	*SE*	95% *CI*	*t*	*df*	*p*
Constant	4.53	.44	[3.66, 5.41]	10.35	60	<.001
Clinician Subjective Risk	3.21	.22	[2.78, 3.64]	14.67	210	<.001
Honorable Discharge	1.46	.50	[-2.76,5.69]	.69	60	.49
Other Discharge type	3.33	2.71	[-2.11,8.71]	1.22	60	.23
Subjective Risk *X* Honorable	-5.03	3.62	[-12.26, 2.20]	1.39	60	.17
Subjective Risk *X* Other	-.533	2.13	[-4.79, 3.72]	-.25	60	.80

Limited sample sizes for discharge status other than honorable are likely to have limited the power to detect a moderation effect within these analyses, even in the case that such an effect would be observed.

Conclusions

Take Home Message

- Clinician judgement of risk is significantly associated with validated the SBQ-R levels of risk.
- This relationship suggests that licensed therapist judgement of suicidality is a selectively valid form of assessment. The association contrasts some historic concerns over clinician judgement of suicide risk.
- The accuracy and ease of clinician judgement suggests an imperfect but valuable utility in veteran suicide risk assessment. Clinical judgement, performed by licensed therapists who work with Veterans, offers a critical risk assessment method.

Risk Assessment Findings

- Clinician judgement was compared to the SBQ-R. Higher sensitivity (indicating broader detection of potential suicidality as measured by higher scores on the SBQ-R) was prioritized during interpretation.
- Low to Moderate sensitivity at the recommended SBQ-R cut scores suggests that clinicians may mismatch some with level of risk compared to the SBQ-R screening measure. When identified risk is identified by clinician judgement, it is likely highly evident (High Specificity). Most pronounced cases of suicide remain those which we can trust clinician judgement.
- Levels of clinician identified risk demonstrated large effect size differences and greater differences in severity of risk had larger effect sizes. These findings suggest that judgement of severity is more accurate at assessing large differences in degrees of severity (e.g., None v Severe) but less accurate when discriminating between close ratings (e.g., None v Mild).

Moderation Analyses Findings

- Analyses did not demonstrate meaningfully impact patterns of moderation that suggest service history variables (combat deployment or discharge status) alter the ability of clinician judgement to determine levels of risk

Limitations

- Use of the SBQ-R is somewhat limited as an outcome variable given its abbreviated form. While such measures are frequent in measurement-based care systems, they themselves are not wholly predictive of suicide risk because of how suicidality can develop (see Bryant, 2021)
- Replication and extension of these findings to other measures of risk, and to other high impact decisions, are necessary to further determine the comparative utility of brief measures of clinical constructs and simplified levels of clinician judgement.