

Psychiatric Illness and Intentional Overdose Associated with Suicide Risk in OUD Patients

INTRODUCTION

OUD is associated with an elevated suicide risk.¹ There are several screening tools for suicide risk that have not been studied in OUD patients.^{2,3,4,5} This study investigates how three screening tools detected suicide risk in OUD patients, and which variables were associated with suicide risk.

METHODS

PATIENTS: 190 patients with OUD from three treatment sites

INTERVENTIONS: Surveys detecting suicide risk at study entry:

- Item #9 of Patient Health Questionnaire-9 (PHQ-9): "Thoughts that you would be better off dead or hurting yourself in some way?"
- DSM-5-Self-Rated Level 1 Cross-Cutting Symptom Measure (CCSM)
- Ask Suicide-Screening Questions (ASQ)

VARIABLES: Demographics; OUD score; intentional overdose history; psychiatric medications; PHQ-9 for depression severity; CCSM domains for mania and psychosis

DATA ANALYSIS: Univariate and multivariable statistics

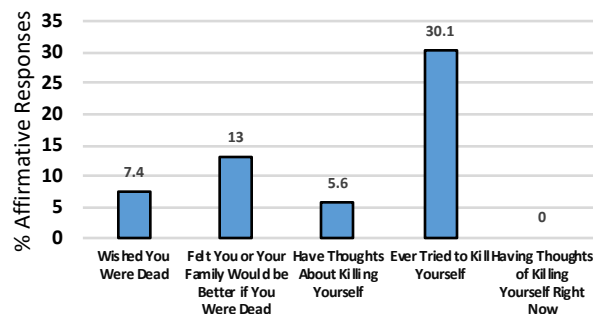
RESULTS

Table 1: Demographics

Characteristic	Number ^a (Percent)
Total	190
Age, Median (IQR)	53.9 (10.8)
Gender	
Male	123 (64.7)
Female	67 (35.3)
Race	
Black	145 (76.3)
Not Black	45 (23.7)
Housing Status	
Stable	100 (52.6)
Unstable	90 (47.4)
Mean OUD Score (Std Dev)	5.5 (3.9)
Intentional Overdose History	
Yes	14 (7.7)
No	167 (92.3)
Taking Psychiatric Medications	
Yes	71 (37.4)
No	119 (62.6)
Mean PHQ-9 Score (Std Dev)	8.3 (7.3)
Mania by CCSM	
Yes	80 (42.1)
No	110 (57.9)
Psychosis by CCSM	
Yes	38 (20.0)
No	152 (80.0)

^aOnly includes those who gave a response; Abbreviations: IQR: interquartile range; Std Dev: Standard Deviation

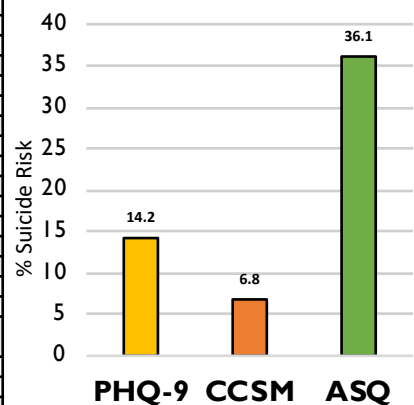
Figure 1: ASQ Responses^a



^aOnly includes those who gave a response

No patient reported current thoughts to kill themselves

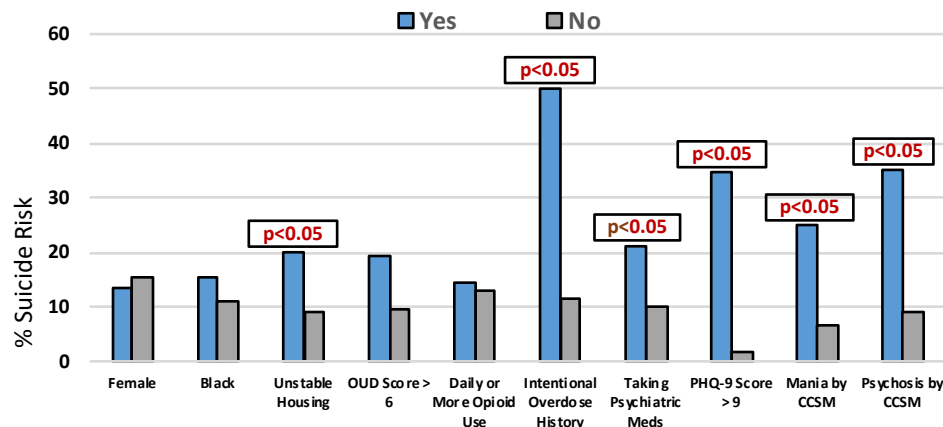
Figure 2: Rates of Suicide Risk by Screening Tool^a



^aOnly includes those who gave a response

Suicide risk was highest with ASQ and lowest with CCSM

Figure 3: Associations with Suicide Risk by Item #9 of PHQ-9



Psychiatric symptoms including depression, mania, and psychosis were associated with suicide risk by Item #9 of PHQ-9, but not OUD score or opioid use frequency

Table 2: Suicide Risk of CCSM by Item #9 of PHQ-9

CCSM	PHQ-9		Total
	Yes	No	
Yes	10	3	13
No	17	160	177
Total	27	163	190

Compared with PHQ-9, CCSM had sensitivity of 37.0% and specificity of 98.2%

Table 3: Suicide Risk of ASQ by Item #9 of PHQ-9

ASQ	PHQ-9		Total
	Yes	No	
Yes	13	26	39
No	1	68	69
Total	14	94	108

Compared with PHQ-9, ASQ had sensitivity of 92.9% and specificity of 72.3%

Table 4: Stepwise Logistic Regression for Variables Associated with Suicide Risk by Screening Tool

Variable	PHQ-9	CCSM	ASQ
Total PHQ-9 Score	OR=1.2 p<0.001	OR=1.2 P=0.009	OR=1.1 P=0.02
Intentional Overdose History	OR=8.1 p=0.006	OR=27.8 P=0.001	NS
Psychosis by CCSM	OR=5.3 p=0.008	NS	NS

Abbreviations: OR=Odds Ratio; NS=not statistically significant

Total PHQ-9 Score, Intentional Overdose History, and Psychosis by CCSM were the variables associated with suicide risk by any of the screening tools

CONCLUSIONS

In this cohort of people with OUD, suicide risk was high. Compared with Item #9 of PHQ-9, ASQ had robust sensitivity and specificity, but CCSM had poor sensitivity. Psychiatric illness and intentional overdose history were associated with suicide risk, but not substance use outcomes. Screening for suicide risk in the OUD population can be done without burdening providers.

AUTHORS

Max Spaderna^{1,A}, Sarah Kattakuzhy^{1,2,3,A}, Sun Jung Kang^{1,A}, Elana Rosenthal^{1,3,A}

- Department of Psychiatry, University of Maryland School of Medicine, Baltimore, MD, United States; email: mspaderna@som.umaryland.edu
- Division of Clinical Care and Research, Institute of Human Virology, University of Maryland School of Medicine, Baltimore, MD, United States
- DC Partnership for HIV/AIDS Progress, Clinical Research Program, Washington DC, United States
- National Institutes of Mental Health, Bethesda, MD, United States
- A. No disclosures B. Receives grants from Gilead and Merck

REFERENCES

- Bohnert ASB, Ilgen MA. Understanding Links among Opioid Use, Overdose, and Suicide. *N Engl J Med*. 2019;380(1):71-79
- Yarborough BJH, Stumbo SP, Ahmedani B, et al. Suicide Behavior Following PHQ-9 Screening Among Individuals With Substance Use Disorders. *J Addict Med*. 2021;15(1):55-60
- Na PI, Yaramala SR, Kim JA, et al. The PHQ-9 Item 9 based screening for suicide risk: a validation study of the Patient Health Questionnaire (PHQ-9) Item 9 with the Columbia Suicide Severity Rating Scale (C-SSRS). *J Affect Disord*. 2018;232:34-40
- Horowitz LM, Snyder DJ, Boudreaux ED, et al. Validation of the Ask Suicide-Screening Questions for Adult Medical Inpatients: A Brief Tool for All Ages. *Psychosomatics*. 2020
- Snyder DJ, Jordan BA, Aizvera J, et al. From Pilot to Practice: Implementation of a Suicide Risk Screening Program in Hospitalized Medical Inpatients. *Jt Comm J Qual Patient Saf*. 2020;46(7):417-426