Brief Intervention and Follow-Up for Suicidal Patients With Repeat Emergency Department Visits Enhances Treatment Engagement

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We implemented an innovative, brief, easy-to-administer 2-part intervention to enhance coping and treatment engagement. The intervention consisted of safety planning and structured telephone follow-up postdischarge with 95 veterans who had 2 or more emergency department (ED) visits within 6 months for suicide-related concerns (i.e., suicide ideation or behavior). The intervention significantly increased behavioral health treatment attendance 3 months after intervention, compared with treatment attendance in the 3 months after a previous ED visit without intervention. The trend was for a decreasing hospitalization rate. (*Am J Public Health.* 2015; 105:1570–1572. doi:10.2105/AJPH.2015.302656)

Approximately 400 000 to 500 000 US emergency department (ED) visits occur annually for suicide attempts.[1,2] The ED is a primary site for the treatment of suicide attempts, and for many patients, ED interventions are the only treatment they receive.[3] As many as 60% of suicidal ED patients are stabilized and discharged directly to outpatient care.[1,2] Unfortunately, only 50% of these patients follow up on their referrals and attend 1 or more outpatient behavioral health sessions.[3] Consequently, costly repeat ED visits and additional suicidal behavior are frequent. As many as 30% of patients presenting to the ED for a suicide-related concern return to the ED for another suicide-related concern within 1 year,[4] and 2-year follow-up suicide mortality rates among suicide attempters are estimated at 2%.[5] Recurrent suicidal behavior and limited outpatient treatment engagement are similarly significant problems among veterans,[6–8] who may be at greater risk for suicide than civilians despite more recent reductions.[9,10] Given that the ED is the only place where many suicidal individuals receive care, it could be an important intervention site to increase outpatient treatment engagement and reduce repeat suicidal behavior, ED visits, and hospitalizations.[11]

METHODS

In a clinical demonstration initiative, titled the Suicide Assessment and Follow-up Engagement: Veteran Emergency Treatment project and implemented by the US Department of Veterans Affairs (VA), we sought to increase treatment engagement. We implemented a 2-stage behavioral intervention that included (1) development of a safety plan intervention (SPI)[12] in the ED, which helps patients identify personal warning signs of a developing suicide crisis, strategies to cope with subsequent suicidal feelings through identification of coping skills, professional and personal supports to seek during a suicidal crisis, and ways to reduce access to lethal means, and (2) brief structured telephone follow-up calls after ED discharge (structured follow-up; SFU)[13] to provide support, facilitate treatment engagement, and mitigate risk. During SPI, VA patients presenting to the ED for suicide-related concerns (i.e., suicidal ideation or a recent suicide attempt) who were clinically determined not to require admission for inpatient care were offered enrollment.

Five VA EDs participated in the demonstration project. Details of the project and the SPI-SFU intervention are described elsewhere.[13] The VA is an excellent system in which to conduct this type of project because it has a comprehensive electronic record system, and patients tend to receive all their care within the VA. Therefore, data on treatments received tend to be complete. Here, we report on the effectiveness of SPI-SFU for increasing outpatient treatment attendance and decreasing ED visits and inpatient utilization among the subsample of veterans seen in the demonstration project who had repeat ED visits for suicide-related concerns over a 6-month period.

RESULTS

SPI-SFU was implemented from 2009 to 2012 with a total of 1102 VA patients who presented to the ED for suicide-related concerns (i.e., suicide attempt or ideation but not nonsuicidal self-injury), were determined to not need inpatient admission, and were discharged with outpatient referrals. We examined a subsample of 96 intervention patients who had 2 or more suicide-related ED visits in a 6-month period, 1 at the index visit at which the intervention was initiated and 1 during the preceding 3- to 6-month time frame. We then examined follow-up treatment engagement for the 3 months after each ED visit.

Patients were predominantly White (66%), male (86%), and aged 35 years or older (75%). Most did not have a college degree (87%) and were unemployed (76%). Thirty-four percent were diagnosed with posttraumatic stress disorder. Forty percent had a mental health service–connected disability of 10% or greater. Sixty percent had a lifetime history of 1 or more suicide attempts, and a similar proportion had a history of alcohol abuse. With a few exceptions, the subsample was demographically and clinically similar to the patients who received SPI-SFU but did not have repeat ED visits for suicide-related concerns within the 6-month time frame.

Medical records data were coded by master's-level staff to ascertain outpatient (mental health and substance abuse treatment appointment attendance; mental health and substance abuse visits were coded separately) and acute (psychiatric ED visits and hospitalizations for suicide risk) service use in the 3 months after the ED visits. We used χ^2 analysis and the paired t test to compare the prevalence and incidence of outpatient and acute service use among subsample members in the 3 months after both ED visits.

In the 3 months after they received SPI-SFU, suicidal veterans presenting to and discharged directly from VA EDs were more likely to attend outpatient behavioral health appointments (either mental health or substance abuse

TABLE 1—Prevalence of Outpatient and Acute Service Utilization Before and After SPI-SFU: Suicide Assessment and Follow-Up Engagement: Veteran Emergency Treatment Project, United States, 2009–2012

Service Type	3 Mo After Non–SPI-SFU ED Visit (≥ 1 Visit), No. (%)	3 Mo After SPI-SFU ED Visit (≥ 1 Visit), No. (%)	χ^2 (McNemar)	*P*
Mental health and substance abuse combined	66 (68.8)	81 (84.4)	8.33	.004
Mental health visit	61 (63.5)	74 (77.1)	5.12	.02
Substance abuse visit	27 (28.1)	29 (30.2)	0.17	.68
ED visits	41 (42.7)	42 (43.8)	0.03	.87
Hospitalizations for suicide risk	25 (26.0)	16 (16.7)	3.24	.07

Note. ED = emergency department; SPI-SFU = safety plan intervention–structured follow-up.

treatment) than they had during the 3 months after a previous ED visit when they did not receive the intervention. In particular, they attended more outpatient mental health treatment appointments after SPI-SFU than they had after an earlier ED visit. ED visits in the 3 months after ED discharge did not change with SPI-SFU. Hospitalizations for suicide-related concerns were lower in 3 months after the SPI-SFU intervention, although this difference was not statistically significant (Tables 1 and 2). No suicides occurred during this study.

DISCUSSION

Attending outpatient care is critical because the period after ED presentation for suicide-related concerns (i.e., suicidal ideation or behavior) is associated with elevated risk for further suicidal behavior, including completed suicide.[5] By comparing rates of outpatient treatment attendance among patients who presented to the ED and received SPI-SFU with rates of treatment attendance among the same participants after an earlier ED visit when SPI-SFU was not provided, we found that SPI-SFU was effective in increasing rates of outpatient behavioral health treatment attendance. Although SPI-SFU did not significantly reduce rates of hospitalization for suicide-related concerns, we found a trend toward a lower incidence of suicide-related hospitalizations after SPI-SFU. A statistically significant inverse relationship between receiving SPI-SFU in the ED and future hospitalization may be detected in a larger sample.

A major limitation of this study is that it was uncontrolled, and elements of the quality of care in the ED during both the index visit and the previous visit were not well characterized and thus could not be considered in the analyses. In general, standard care for suicidal individuals in the Veterans Affairs Medical Center system is extensive and includes evidence-based screening, assessment, and treatment at all levels of care. Furthermore, every Veterans Affairs Medical Center has at least 1 staff member, a suicide prevention coordinator, who is dedicated to providing enhanced case management and follow-up to veterans at high risk for suicide. In addition, length of stay on inpatient units in the VA is typically longer than in community hospitals.[14,15] It is possible that, given the differences between the VA and non-VA facilities, the results may not be completely generalizable to community hospitals.

It is interesting that, despite the VA's heavy attention to suicidal veterans, our results suggest that the additional care provided in this intervention may be needed to engage suicidal veterans in care. We do not know whether the effects of the intervention we tested would be weaker or stronger in community systems in which care is not as intense and integrated. Moreover, the sample consisted mostly of young, White men, which reflects the demographic composition of the veteran population but limits the generalizability of the findings to patients of other ages and races. Patients could also have received different (more intensive or coordinated) ED care during their second visit

TABLE 2—Incidence of Outpatient and Acute Service Utilization Before and After SPI-SFU: Suicide Assessment and Follow-Up Engagement: Veteran Emergency Treatment Project, United States, 2009–2012

Service Type	3 Mo After ED Visit Without SPI-SFU			3 Mo After ED Visit With SPI-SFU			*s* (Wilcoxon rank-sum)	*P*
	Mean (95% CI)	Total, No.	Max, No.	Mean (95% CI)	Total, No.	Max, No.		
Mental health and substance abuse visits combined	6.88 (4.28, 9.48)	660	57	10.79 (6.53, 15.06)	1036	130	523	.02
Mental health visits	4.52 (2.63, 6.41)	434	54	5.57 (3.33, 7.81)	535	80	471	.02
Substance abuse visits	2.35 (0.78, 3.92)	227	44	5.21 (1.65, 8.77)	501	100	75	.26
ED visits	0.84 (0.57, 1.11)	81	6	0.66 (0.47, 0.85)	63	4	–107	.32
Hospitalizations for suicide risk	0.33 (0.21, 0.45)	32	2	0.23 (0.11, 0.36)	22	4	–60	.15

Note. ED = emergency department; SPI-SFU = safety plan intervention–structured follow-up.

to the ED for suicide-related concerns in short time frame than they had during their previous visit. Thus, definitive conclusions regarding the effectiveness of SPI-SFU for increasing outpatient treatment engagement await a controlled trial comparing SPI-SFU with usual care. Despite these limitations, findings from this evaluation suggest that SPI-SFU holds promise with respect to engaging patients at high risk for suicide presenting to EDs in outpatient follow-up treatment. This approach could be adapted for EDs across various settings in the general population, including urgent care facilities. ■

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Contributors

B. Stanley, G. K. Brown, G. W. Currier, and K. L. Knox planned and designed the project and oversaw data acquisition. All authors were involved in analysis and interpretation of the data and drafting and revising the article. All authors approved the final article.

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Human Participant Protection

Institutional review board approval, as required by the individual institutions participating in this project, was obtained for medical records review. Permission for a waiver of consent was obtained.

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Effect of Depression on Risky Drinking and Response to a Screening, Brief Intervention, and Referral to Treatment Intervention

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We assessed alcohol consumption and depression in 234 American Indian/Alaska Native women (aged 18–45 years) in Southern California. Women were randomized to intervention or assessment alone and followed for 6 months (2011–2013). Depression was associated with risk factors for alcohol-exposed pregnancy (AEP). Both treatment groups reduced drinking ($P < .001$). Depressed, but not nondepressed, women reduced drinking in response to SBIRT above the reduction in response to assessment alone. Screening for depression may assist in allocating women to specific AEP prevention interventions. (*Am J Public Health.* 2015; 105:1572–1576. doi:10.2105/AJPH.2015.302688)

Women who consume alcohol and do not practice effective contraception are at risk for an alcohol-exposed pregnancy (AEP). AEPs can lead to fetal alcohol spectrum disorders, the leading known cause of developmental disabilities.[1–3] Prepregnancy drinking, particularly heavy episodic or binge drinking, is