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Evaluating the Prevalence of Four Recommended Practices for Suicide Prevention Following Hospital Discharge

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Background: The Joint Commission's National Patient Safety Goal (NPSG) for suicide prevention (NPSG.15.01.01) requires that accredited hospitals maintain policies/procedures for follow-up care at discharge for patients identified as at risk for suicide. The proportion of hospitals meeting these requirements through use of recommended discharge practices is unknown.

Methods: This cross-sectional observational study explored the prevalence of suicide prevention activities among Joint Commission–accredited hospitals. A questionnaire was sent to 1,148 accredited hospitals. The authors calculated the percentage of hospitals reporting implementation of four recommended discharge practices for suicide prevention.

Results: Of 1,148 hospitals, 346 (30.1%) responded. The majority ($n = 212$ [61.3%]) of hospitals had implemented formal safety planning, but few of those ($n = 41$ [19.3%]) included all key components of safety planning. Approximately a third of hospitals provided a warm handoff to outpatient care ($n = 128$ [37.0%)] or made follow-up contact with patients ($n = 105$ [30.3%]), and approximately a quarter ($n = 97$ [28.0%]) developed a plan for lethal means safety. Very few ($n = 14$ [4.0%]) hospitals met full criteria for implementing recommended suicide prevention activities at time of discharge.

Conclusion: The study revealed a significant gap in implementation of recommended practices related to prevention of suicide postdischarge. Additional research is needed to identify factors contributing to this implementation gap.

Every year in the United States, an estimated 49 to 65 hospitalized patients die by suicide,[1] and multiple studies suggest that the risk for suicide is significantly higher following discharge.[2–4] A growing number of interventions are focused on reducing suicide following hospital discharge. Although making referrals and providing patients with a list of community crisis resources are common practices, research suggests that use of evidence-informed postdischarge interventions can reduce suicidal behavior postdischarge.[5] Effective interventions include safety planning just prior to discharge[6–9] and a follow-up protocol or caring contact implemented after discharge.[5,10,11]

The Joint Commission's National Patient Safety Goal (NPSG) for suicide prevention (NPSG.15.01.01)[12] requires that accredited hospitals maintain policies/procedures for follow-up care at discharge for patients identified as at risk for suicide. The proportion of hospitals meeting these requirements by using specific recommended practices is unknown. Assessment of the prevalence of these practices is essential to inform quality improvement efforts and considerations for whether these recommended practices might be incorporated into future accreditation requirements. Given the paucity of previous studies of the prevalence of suicide prevention practices in multiple hospital settings, the purpose of this study was to determine the degree to which specific discharge and postdischarge suicide prevention practices have been implemented among Joint Commission–accredited hospitals in the United States and to understand challenges and barriers to implementation.

The findings presented here were part of a larger study that examined the prevalence of universal screening and postdischarge suicide prevention activities as well as data collection and quality improvement activities associated with suicide prevention among Joint Commission–accredited hospitals. Findings related to prevalence of universal screening will be published in a forthcoming manuscript.

METHODS

This cross-sectional, observational study was guided by a scientific advisor and six expert advisors who helped identify suicide prevention practices associated with hospital and emergency department discharge planning; helped develop the questionnaire; established minimum necessary measurable requirements to determine whether a hospital had im-

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plemented a recommended practice; and advised on data analysis and interpretation. This project was reviewed by Ethical and Independent Review Services and was determined to be exempt from Institutional Review Board review.

Questionnaire Development

Questionnaire development began with a review of published literature and a series of advisory panel meetings to establish questionnaire domains and review draft questions. The postdischarge suicide prevention domain included interventions that may be implemented prior to discharge to prevent suicide following hospital discharge. Throughout this article, these interventions are referred to as "recommended practices." They include formal safety planning, planning for lethal means safety, providing warm handoffs to outpatient care, and making follow-up contact after discharge. These interventions have been previously tested in the suicide research literature and are recommended by national suicide prevention organizations.[6–9,13] The draft questionnaire was pilot tested at seven hospitals in June 2022 and updated after the pilot test (Appendix 1, available in online article). Key updates included moving some questions around to enhance flow, clarifying instructions, fixing online display logic, and reducing the questionnaire length by deleting redundant questions.

The section on interventions for suicide prevention postdischarge began with a binary question (yes/no response) regarding whether a hospital had implemented suicide prevention activities at time of discharge. The questionnaire also included items that inquired whether the hospital had specifically implemented certain key components of recommended practices by asking respondents to select from a list of multiple actions and activities. Additional questions were designed to assess implementation fidelity of key components.

Surveyed Hospitals

The Joint Commission is a not-for-profit organization that accredits approximately 3,800 (80%) hospitals in the United States.[14] Joint Commission–accredited general-medical/surgical acute care hospitals, critical access hospitals (CAHs), children's hospitals, and psychiatric hospitals that had on-site accreditation surveys and received accreditation during 2020–2021 ($n = 1{,}333$) were eligible for inclusion. We excluded hospitals due for a Joint Commission survey visit in 2022 to reinforce that the study was unrelated to accreditation. We also excluded specialty hospitals, such as long-term acute care and rehabilitation hospitals, and other specialty hospitals with very little representation in the hospital population ($n = 185$). A total of 1,148 hospitals were eligible (Figure 1).

Data Collection

In August 2022 an advance invitation letter was sent to all eligible hospitals. Two weeks later, an e-mail with a project information sheet and a link to a 40-item electronic questionnaire (on the Qualtrics platform [Qualtrics LLC, Provo, Utah]) was sent to the quality department director at the 1,148 hospitals included in the sample. The quality department directors were asked to complete the questionnaire or forward it to appropriate persons within their hospital; that is, the person(s) with institutional knowledge related to an organization's suicide prevention efforts across units or departments. Information related to respondent roles is provided in the Results section. The desired minimum sample size, calculated based on 5% precision and confidence intervals (CIs) of 95% after applying a finite population correction factor, was determined to be 299 hospitals. Four follow-up reminders were sent to encourage questionnaire completion, and data collection closed on November 1, 2022.

Data Analyses

Quantitative analyses were completed using R, version 3.5 software (R Foundation for Statistical Computing, Vienna). To analyze responses, after the survey was closed, sampling weights were used to adjust the results for nonresponse. To determine the weights, logistic regression was used to estimate the probability that a sampled hospital had completed the survey as a function of bed size category ($<$ 100 beds, 100–399 beds, $\geq$ 400 beds), location (urban or rural), system status (membership in a hospital system, not a member of a hospital system), and teaching status (major teaching, minor teaching, and nonteaching). The inverse of the predicted probability of response from the logistic regression was then used as the weight. Mean scores for recommended practices, both overall and stratified by the hospital characteristics, were calculated using these sampling weights, and weighted scores are provided. A p value less than alpha $= 0.05$ was considered significant. Chi-square tests were used to test for the differences in response rates by each hospital characteristic. Fisher's exact test was used if any of the expected counts were less than five.

Operationalization and Calculation of Recommended Practice Implementation

Based on input from the expert panel, four recommended practices associated with the prevention of suicide following hospital discharge were selected for study: formal safety planning, planning for lethal means safety, providing warm handoffs to outpatient care, and making follow-up contact after discharge. Hospitals were included or eliminated from counts depending on how they answered initial questions about each of the recommended practices, as well as a series of follow-up questions that went beyond the initial yes or no response (intended to determine whether the hospital had completely implemented all the key components

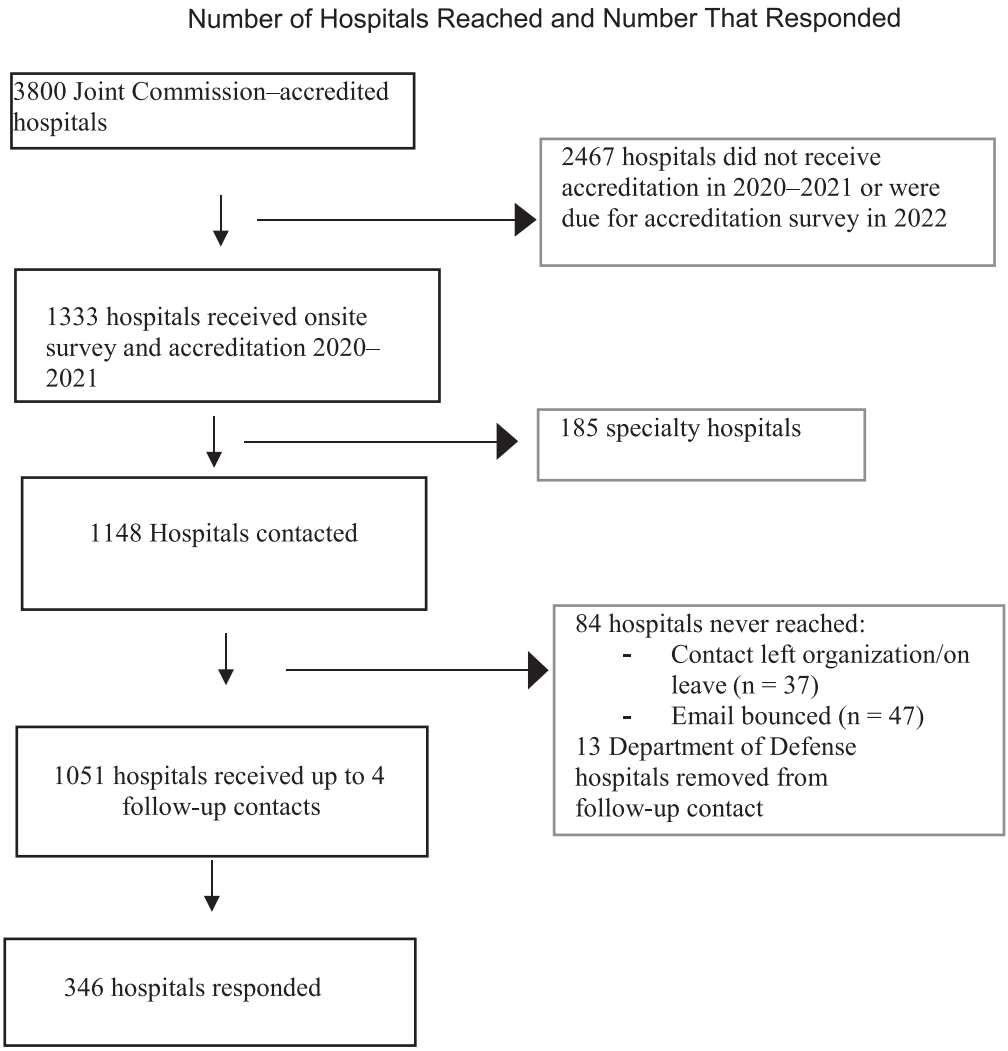


Figure 1: This flow diagram shows the number of hospitals reached and the number of hospitals that responded.

that were part of a recommended practice. A brief description of the recommended practices, including their specific components in comparison to current requirements, is provided in Table 1. To be counted as having implemented the recommended postdischarge suicide prevention practices, a hospital needed to have reported implementing each of the four recommended suicide prevention discharge practices and all the practice components.

The first recommended practice, formal safety planning, needed to include all of the following eight components[1]:

1. Promoting shared understanding of the purpose of the safety plan
2. Identifying and documenting warning signs
3. Documenting internal coping strategies
4. Identifying people and social settings that provide distraction
5. Identifying personal contacts to ask for help
6. Providing name and contacts of professional services to contact during crisis
7. Developing a plan for lethal means safety
8. Explaining the best ways to use a safety plan

The second recommended practice, planning for lethal means safety, is often considered a part of formal safety planning when the latter is done well. However, based on the recommendations of our expert panel, we elected to directly focus on this activity as a specific recommended practice. Therefore, the questionnaire included separate questions on whether a hospital had implemented planning for lethal means safety and whether their formal safety planning included planning for lethal means safety. The third recommended safety practice, making warm handoffs to outpatient care, was described as introducing a patient to a behavioral health clinician and initiating contact prior to discharge. Respondents had the option of selecting this practice from a list, and there were no additional questions for this practice. Finally, the fourth recommended practice, making follow-up contact with patients identified as being at risk for suicide, was counted if it routinely occurred up to four to five days after discharge.

Table 1. Description of Recommended Practices and Current Requirements

Current Requirement*	Recommended Practice	Specific Components and Description of Activities
BHC: Follow written policies and procedures for counseling and follow-up care at discharge for individuals served identified as at risk for suicide. HAP: Follow written policies and procedures for counseling and follow-up care at discharge for patients identified as at risk for suicide.	Formal safety planning: Includes completion of a safety plan form, crisis response form, crisis stabilization form, or using the Stanley-Brown Safety Planning Intervention.	Promote shared understanding of the purpose of the safety plan. Identify and document warning signs. Document internal coping strategies. Identify a risk curve.† Identify people and social settings that provide distraction. Identify personal contacts to ask for help. Provide name and contacts of professional services to contact during crisis. Develop a plan for lethal means safety. Explain the best ways to use a safety plan.
	Plan for lethal means safety.	Counsel patients with suicide risk about how to safely store firearms and other lethal means to reduce the risk of suicidal behavior following discharge.
	Provide warm handoffs to outpatient care.	Introduce patient to a behavioral health clinician and initiating contact prior to discharge.
	Make follow-up‡ contact after discharge.	Routinely contact patients at risk for suicide following hospital discharge to ensure successful transitions of care and effectiveness of formal safety planning.

* The Joint Commission National Patient Safety Goal (NPSG) Standard NPSG.15.01.01, Element of Performance (EP) 6. Applies to BHC (Behavioral Health Care and Human Services Accreditation Program) and HAP (Hospital Accreditation Program).

† This component was omitted for our study. Although it is a key part of formal safety planning, the expert panel noted that they would expect very few hospitals to have implemented it currently.

‡ For this study, routine occurrence included follow-up done up to four to five days after discharge.

RESULTS

Overall, 346 of 1,148 hospitals (30.1% response rate) completed the questionnaire, meeting the sample size needed for estimated precision. Hospital characteristics were obtained from the 2021 American Hospital Association (AHA) Annual Survey of Hospitals database.[15] Among responding hospitals, 180 (52.0%) were medium, 110 (31.8%) were small, and 56 (16.2%) were large; 256 (74.0%) belonged to a hospital system; 277 (80.1%) were located in an urban area; 171 (49.4%) were minor teaching, 32 (9.2%) were major teaching, and 143 (41.3%) were nonteaching hospitals; 237 (68.5%) were general hospitals, 31 (9.0%) were CAHs, and 62 (17.9%) were psychiatric hospitals (Table 2).

Hospitals that did not belong to a larger health care system were more likely to respond ($p < 0.001$) compared to hospitals that belonged to a system (Table 2). Only 4 of the responding hospitals were children's hospitals, making the sample too small to make comparisons between responding and nonresponding children's hospitals. However, they were included in the overall analysis based on their other characteristics (location, teaching status, ownership, and system membership). A total of 162 (46.8%) respondents reported that their role or title included quality, patient safety, or performance improvement; 69 (19.9%) regulatory compliance; 38 (11.0%) social or behavioral services; 27 (7.8%) chief nursing officer or director of nursing; 18 (5.2%) chief executive officer (CEO), chief operating officer (COO), corporate vice president, or administrator; and 15 (4.3%) emergency department director or manager. Seventeen (4.9%) respondents did not indicate their roles or titles.

Prevalence of Recommended Practices for Postdischarge Suicide Prevention

Of the 337 (97.4%) hospitals that responded to the question, "Has your hospital implemented suicide prevention activities at time of discharge?", the vast majority ($n = 275$, 81.6%) reported "Yes," 30 (8.9%) reported "No," and 32 (9.5%) reported "Not sure."

All 346 participating hospitals were asked to identify practices they had implemented to enhance suicide prevention during discharge and postdischarge. The majority of participating hospitals reported providing a list of crisis resources ($n = 288$, 83.2%) and making referrals ($n = 269$, 77.7%). However, very few hospitals ($n = 29$, 8.4%) reported implementing all four key recommended suicide prevention practices (formal safety planning, lethal means safety plan, warm handoff to outpatient care, and follow-up contact) (Figure 2). Most hospitals ($n = 254$, 73.4%) reported implementing at least one of the four recommended practices, and 163 (47.1%) had implemented at least two practices. The majority ($n = 212$, 61.3%) of hospitals reported that they had implemented formal safety planning, which was by far the most common of the four recommended discharge practices. Fewer than 40% of respondents reported practicing warm handoffs ($n = 128$, 37.0%), and about one third were practicing follow-up contact ($n = 105$, 30.3%) or planning for lethal means safety ($n = 97$, 28.0%) (Figure 2).

Some hospital characteristics were statistically more likely to be associated with certain recommended practices for postdischarge suicide prevention, although these differ-

Table 2. Hospital Characteristics of Responding Hospitals Compared to Nonresponding Hospitals

Hospital Characteristic	Responders *N* (% of 346)	Nonresponders *N* (% of 705)	*p* Value
Bed Size			
< 100	110 (31.8)	263 (37.3)	0.11
100–399	180 (52.0)	354 (50.2)	
≥ 400	56 (16.2)	88 (12.5)	
System Membership			
Yes	256 (74.0)	583 (82.7)	< 0.001
No	90 (26.0)	122 (17.3)	
Primary Service			
CAH	31 (9.0)	68 (9.6)	0.12
General	237 (68.5)	448 (63.5)	
Psychiatric	62 (17.9)	122 (17.3)	
Other	16 (4.6)	67 (9.5)	
Location			
Rural	69 (19.9)	152 (21.6)	0.56
Urban	277 (80.1)	553 (78.4)	
Teaching Status			
Major	32 (9.2)	44 (6.2)	0.21
Minor	171 (49.4)	358 (50.8)	
Nonteaching	143 (41.3)	303 (43.0)	
Ownership			
For-profit	77 (22.3)	180 (25.5)	0.35
Not-for-profit	194 (56.1)	404 (57.3)	
Government	75 (21.7)	121 (17.2)	

CAH, critical access hospital.

Table 3. Characteristics of Hospitals Implementing Four Recommended Discharge Practices

	N	Formal Safety Planning (%)	*p* Value	Lethal Means Safety Plan (%)	*p* Value	Warm Handoff (%)	*p* Value	Follow- Up Contact (%)	*p* Value
Location									
Rural	69	50.9	< 0.001	21.4	0.014	25.0	< 0.001	29.5	0.86
Urban	277	63.7		29.7		38.9		30.1	
Teaching Status									
Major	32	71.4	0.14	49.5	< 0.001	41.7	0.40	31.6	0.47
Minor	171	59.3		24.8		36.7		31.4	
Nonteaching	143	61.4		28.2		34.2		28.0	
Ownership									
For-profit	77	66.3	0.14	32.4	0.076	32.2	0.023	26.2	< 0.001
Government	75	60.0		30.2		44.0		41.6	
Not-for-profit	194	59.2		25.3		34.9		27.7	
System Membership									
No	90	62.0	0.76	22.8	0.058	48.4	< 0.001	31.4	0.61
Yes	256	60.8		29.3		32.8		29.6	

ences tended to be small. Rural hospitals were less likely to have implemented formal safety planning (50.9%% vs. 63.7%, $p < 0.001$) or provide warm handoffs (25.0% vs. 38.9%, $p < 0.001$). Major teaching hospitals were more likely to have implemented planning for lethal means safety (49.5% vs. 24.8%–28.2%, $p < 0.001$). Government-owned hospitals were more likely to do follow-up contact (41.6% vs. 26.2%–27.7%, $p < 0.001$), and hospitals that did not belong to a system were more likely to provide warm handoffs (48.4% vs. 32.8%, $p < 0.001$) (Table 3).

The majority of hospitals ($n = 223$, 64.5%) reported either rarely or never providing follow-up contact services with patients at risk for suicide after discharge. Only 20.0% of hospitals made follow-up contact within 24 hours after a patient's discharge, and an additional 21.8% made follow-up contact within two to three days after discharge (Table 4). The majority (64.8%) of the 165 hospitals that

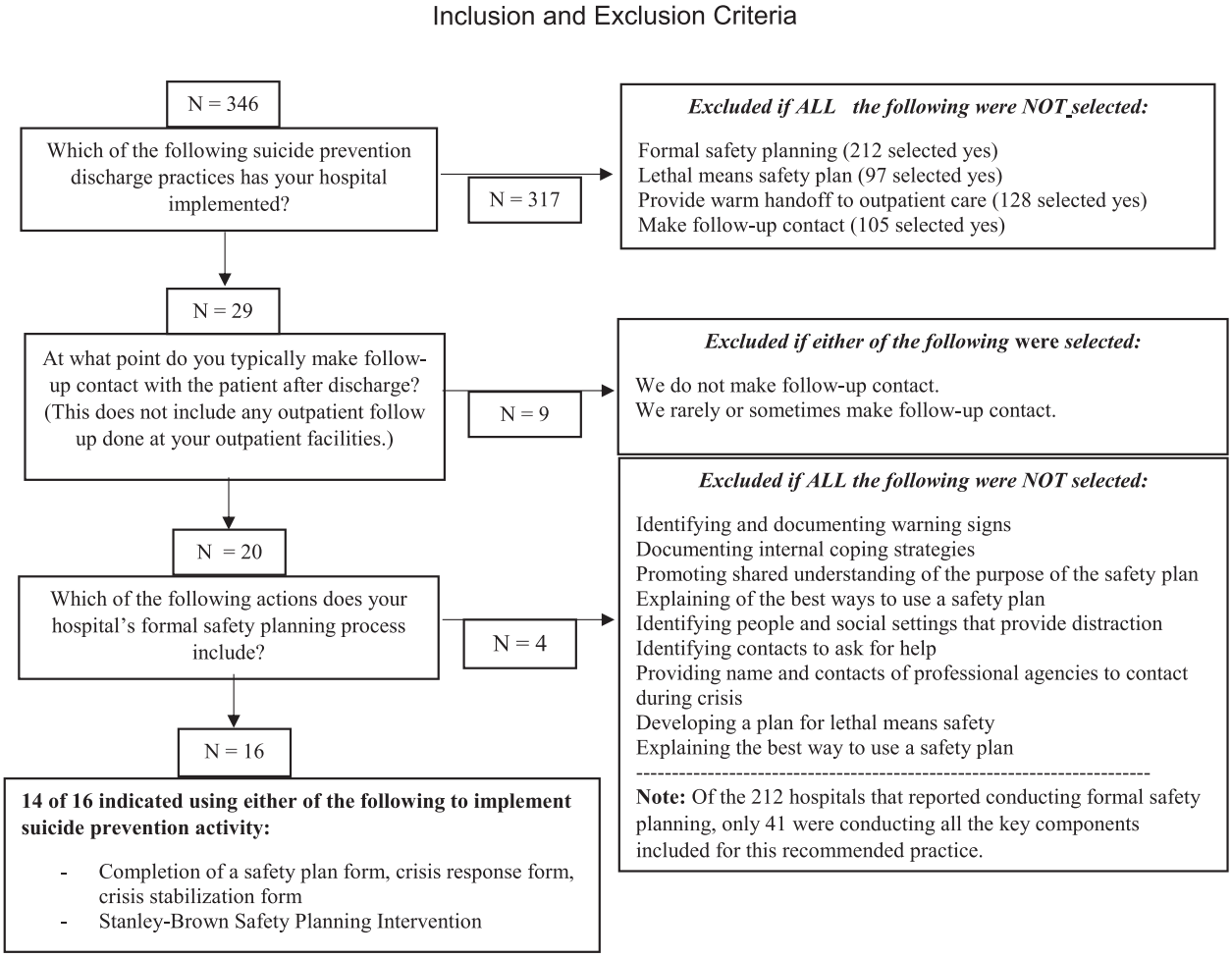


Figure 2: This flow diagram shows inclusion and exclusion criteria for hospitals implementing recommended suicide prevention activities at time of discharge.

reported making follow-up contact indicated that they were rarely or only occasionally successful in actually reaching patients assessed as being at risk for suicide. Nearly all follow-up contacts were made via telephone (96.4%), but hospitals varied considerably in their success rates for reaching patients. Hospitals covered a wide range of topics during follow-up sessions with patients. Many hospitals conducted a wellness check ($n = 117$, 70.9%), provided expressions of care, support, and connection during contact ($n = 81$, 49.1%), or provided outpatient appointment reminders (n=75, 45.5%) (Table 4).

To assess hospitals' implementation of formal safety planning, specific components were examined. Among the 212 hospitals that had indicated they had implemented formal safety planning, very few ($n = 41$, 19.3%) were conducting eight key components of safety planning. Hospitals frequently provided names and contacts of professional services to contact during crisis, ($n = 183$, 86.3%), identified and documented patient warning signs ($n = 176$, 83.0%), identified contacts to ask for help ($n = 171$, 80.7%), documented internal coping strategies ($n = 163$, 76.9%), promoted shared understanding of the purpose of the safety plan ($n = 138$, 65.1%), identified people and social settings that provide distraction ($n = 129$, 60.8%), and provided explanation of the best ways to use a safety plan ($n = 113$, 53.3%). Only 92 (43.4%) developed a plan for lethal means safety (Table 5). Interestingly, 5 (2.4%) of the hospitals that reported having implemented a formal safety planning process did not report doing any of the key components designed to be a part of safety planning.

When all four recommended practices and components associated with formal safety planning were examined, only 16 of the 29 hospitals that initially reported implementing all four met the full criteria for successful implementation. That is, 16 of 346 (4.6%) responding hospitals had implemented all four recommended suicide prevention discharge practices, including all components: formal safety planning, planning for lethal means safety, providing warm handoffs to outpatient care, and making follow-up contact after discharge (Figure 2). Major teaching and government-owned hospitals were more likely to have implemented rec-

Table 4. Hospital Follow-Up Contact Practices

Follow-Up Contact	***N* (% of 346)**
We do not make follow-up contact.	156 (45.1)
We make follow-up contact.	165 (47.7)
Missing	21 (6.1)
N/A (no suicide prevention practices selected for implementation)	4 (1.2)
Time Frame for Follow-Up Contact	***N* (% of 165)***
We rarely or sometimes make follow-up contact.	67 (40.6)
We routinely make follow up contact, but there is no set time frame.	19 (11.5)
We routinely contact the patient within 24 hours after discharge.	33 (20.0)
We routinely contact the patient within 2–3 days after discharge.	36 (21.8)
We routinely contact the patient within 4–5 days after discharge.	10 (6.1)
Follow-Up Contact Modality	***N* (% of 165)†**
Phone	159 (96.4)
Secure e-mail	13 (7.9)
Mail	11 (6.7)
Other (for example, in-person, video)	11 (6.7)
Text	6 (3.6)
Automated App	1 (0.6)
Success at Reaching Follow-Up Patients Assessed as Being at Risk for Suicide	***N* (% of 165)***
Never	2 (1.2)
Rarely	36 (21.8)
Occasionally	71 (43.0)
Most of the time	56 (33.9)
All of the time	0 (0.0)
Topics Covered During Follow-Up Contact	***N* (% of 165)†**
Wellness check	117 (70.9)
Expressions of care, support, and connection	81 (49.1)
Provide outpatient appointment reminder	75 (45.5)
Review safety plan	68 (41.2)
Discuss barriers to outpatient care	64 (38.8)
Provide emergency contact information	63 (38.2)
Provide community mental health/substance use referral	56 (33.9)
Recommendation of coping strategies	43 (26.1)
Suicide screen	39 (23.6)
Other (for example, medication compliance)	18 (10.9)
Personally tailored images or messages	16 (9.7)
Develop safety plan	6 (3.6)
Missing	4 (2.4)

* Only includes respondents that reported making follow-up contact.

† Respondents had the choice to make multiple selections (that is, select all that apply).

ommended suicide prevention activities at time of discharge (Table 6).

Intervention Models to Implement Suicide Prevention Activities

Approximately one third of hospitals (n =121, 35.0%) reported using a safety plan form, crisis response, or crisis stabilization form; 12.4% identified using the Stanley-Brown Safety Planning Intervention (SPI),[16] which is identified as a best practice by the Suicide Prevention Resource Center/American Foundation for Suicide Prevention Best Practices Registry for Suicide Prevention. Many organizations (n = 133, 38.4%) reported not using any formal intervention model to implement suicide prevention activities at discharge.

Challenges and Barriers to Implementing Postdischarge Suicide Prevention Activities

The majority (n = 227, 65.6%) of hospitals identified the lack of access to mental health and crisis support services as a notable challenge related to implementing some postdischarge suicide prevention activities such as providing warm handoff. Other common challenges noted were related to increased burden on providers (n = 145, 41.9%), inconsistent and/or lack of follow-up with suicidal patients (n = 137, 39.6%), logistical concerns in tracking a large number of discharged patients to receive interventions on schedule (n = 122, 35.3%), or lack of training of hospital staff on outpatient management of suicide risk (n = 102, 29.5%).

Table 5. Components Included in Hospital Formal Safety Planning Protocol

Included Element of Formal Safety Planning Protocol	Implemented Suicide Prevention Discharge Practices *N* (% of 346)*	Implemented Safety Planning *N* (% of 212)†
1. Promoting shared understanding of the purpose of the safety plan	159 (46.0)	138 (65.1)
2. Identifying and documenting warning signs	234 (67.6)	176 (83.0)
3. Documenting internal coping strategies	201 (58.1)	163 (76.9)
4. Identifying people and social settings that provide distraction	143 (41.3)	129 (60.8)
5. Identifying personal contacts to ask for help	218 (63.0)	171 (80.7)
6. Providing name and contacts of professional services to contact during crisis	261 (75.4)	183 (86.3)
7. Developing a plan for lethal means safety	103 (29.8)	92 (43.4)
8. Explaining the best ways to use a safety plan	128 (37.0)	113 (53.3)
9. Other	18 (5.2)	11 (5.2)
10. None of the above	24 (6.9)	5 (2.4)
11. N/A	4 (1.2)	0 (0.0)
12. Missing	12 (3.5)	0 (0.0)

* Respondents indicated that their hospital had implemented suicide prevention discharge practices. Respondents had the choice to make multiple selections (that is, select all that apply).

† Respondents indicated that their hospital had implemented formal safety planning. Respondents had the choice to make multiple selections (that is, select all that apply).

Table 6. Characteristics of Hospitals Implementing Recommended Practices to Prevent Suicide Postdischarge

Characteristic	Total *N* = 346	No. of Hospitals Implemented RP*	Rate Weighted (%)	*p* Value
Location				
Rural	69	2	2.2	0.014
Urban	277	14	4.2	
Teaching Status				
Major	32	4	13.2	< 0.001
Minor	171	7	3.3	
Nonteaching	143	5	2.7	
System Member				
No	90	4	4.5	0.55
Yes	256	12	3.6	
Ownership				
For-profit	77	4	5.1	< 0.001
Government	75	8	10.7	
Not-for-profit	194	4	0.8	

* RP refers to having implemented the set of four recommended suicide prevention activities at time of discharge (formal safety planning, lethal means safety plan, warm handoff, follow-up contact), *and* safety planning process includes all components indicated in Table 5.

DISCUSSION

This study sought to explore the prevalence of several recommended postdischarge suicide prevention activities for patients identified as being at risk for suicide. Survey results revealed that although hospitals had typically implemented common (and low-resource) discharge practices such as providing a list of crisis resources and making referrals, many of the better tested and more robust suicide prevention practices have not yet been widely implemented. Responding hospitals had routinely implemented some combination of the recommended suicide prevention practices, but fewer than 10% of hospitals implemented comprehensive discharge planning that includes all the recommended suicide prevention practices and components of formal safety planning.

It is important to note that none of the recommended practices studied here are specifically required by current Joint Commission accreditation standards. NPSG.15.01.01 requires accredited hospitals to develop and use policies/procedures for follow-up care and to reduce the risk of suicide at discharge, but the requirement is silent on the specific interventions that should be implemented. The findings from this study illustrate that the majority of hospitals are potentially meeting the current requirements via implementation of more established practices (which require minimal resources but may also be less

effective) such as making referrals and providing patients with a list of community crisis resources. Although updating the accreditation requirements may accelerate adoption of recommended practices, given that so few of the participating hospitals have implemented these practices, such an action might be premature. In the short term it may be more pragmatic to establish and provide hospitals with resources related to recommended practices, including information on how to optimize high-quality implementation of these interrelated interventions. Among hospitals that more generally reported implementing the recommended practices for postdischarge suicide prevention, many did not include several of the specific components or processes that are associated with these practices. For example, formal SPI is a widely recognized best practice that goes beyond completing a safety plan form.[16] As designed, it involves a number of important components, but the majority of responding hospitals omitted one or more of these key components associated with this intervention. A few hospitals that reported doing formal safety planning did not report implementing any of the key components. Additional research may be needed to determine if these gaps reflect a lack of understanding about the key components of effective safety planning, or if omissions are intentional and attributed to other factors (for example, limited time and resources).

More than 55% of hospitals that reported practicing safety planning were not addressing lethal means safety. Developing an action plan for lethal means safety is a crucial part of safety planning, and it is recognized as an effective suicide prevention practice.[13,17] The low rate of adoption observed in this study is consistent with observations made in previous studies that noted a lack of awareness of the importance of planning for lethal means safety prior to discharge and discomfort or uncertainty about how to deliver such counseling using nonstigmatizing approaches.[18,19]

Research has also underscored the significance of warm handoffs for patient engagement with behavioral health services,[20–22] making it an essential part of suicide prevention and continuity of care. Providing a warm handoff to outpatient care goes beyond simply providing referral information. Rather, a warm handoff includes a medical professional introducing a patient to a behavioral health clinician prior to discharge. To effectively address the challenges to providing warm handoffs such as lack of access to community mental health or crisis support services outside regular hours, there is need to examine the broader context of care collaboration and focus on building more interconnected crisis systems between hospitals and outpatient mental health centers. The National Action Alliance for Suicide Prevention's Best Practices in Care Transitions for Individuals with Suicide Risk: Inpatient Health Care Self-Assessment checklist[23] can be a practical starting point for hospitals. The checklist groups transition practices into three categories: practices related to administrative preparation to enhance care for patients who screen positive for suicide risk, practices that happen during care of a patient, and practices related to postdischarge. In addition to emphasis on structured continuity of care teams including a suicide prevention champion, the checklist recommends having formal memoranda of understanding (MOUs)/memoranda of agreement (MOAs), administrative protocols, and ongoing communications with outpatient referral organizations. Facilitation of this checklist would be a practical starting point for hospitals, but there is still need for further guidance to advance interconnectedness between hospitals and community mental health services.

Our study also found widespread variability in practices associated with making postdischarge follow-up contact, a practice that has been found to be most effective when used with safety planning.[8,24–26] A majority of hospitals reported little success in reaching patients at risk for suicide following hospital discharge. These findings are consistent with previous studies that found limited and sporadic implementation of follow-up contact.[27,28] Other studies indicate that follow-up contact is particularly limited for nonpsychiatric patients.[29] Yet timely follow-up contact is essential for successful transitions of care, and it elevates the effectiveness of formal safety planning.[8,24,28] Stanley et al. found that adding routine follow-up contact for suicidal patients who had received SPI in emergency departments was associated with improved outpatient treatment engagement six months following discharge and reduced suicidal behavior.[8] Hence, although formal safety planning is a key intervention for reducing suicide risk for vulnerable patients postdischarge, its potential success may depend on other practices, such as providing follow-up services to enhance engagement in health care.

Of course, the gap between how suicide prevention practices are studied and how they are actually implemented is not surprising. A key concern identified through this study is the degree to which hospitals may believe they are following recommended practices while unknowingly omitting key components that make these practices effective. Gamarra et al. found variability in quality of implementation of safety planning in a regional Veterans Health Administration hospital and highlighted the association between outcomes and safety plan quality and completeness.[28] As noted earlier, hospitals may benefit from dissemination of quality and comprehensive safety planning resources that highlight the interconnectedness of various practices and practical information on how to optimize implementation. However, more research related to understanding the acceptability, feasibility, barriers, and facilitators of effectively implementing these recommended practices is needed.

Limitations

This study has several important limitations, each of which may contribute to an overestimation of recommended practice adoption. The study involved only Joint Commission–

accredited hospitals. This focus was deliberate, as implementation of The Joint Commission's National Patient Safety Goal on suicide prevention in 2019 created a driver for accredited hospitals to adopt some suicide prevention practices. This external driver was not present in nonaccredited organizations, so results should not be generalized to nonaccredited hospitals. The study's 30% response rate also calls for caution in generalizing the findings even among accredited hospitals. Although sampling weights were used to adjust the results for nonresponse, nonresponders may differ in their suicide prevention practices. Because the study was conducted by Joint Commission researchers, nonresponders may have opted out to avoid reporting practices that may be viewed as unfavorable. Similarly, social desirability bias may have affected how responding hospitals answered various questions in the questionnaire. Related to this, because we relied on respondent reports and not abstraction from patient medical charts, the potential for self-reporting bias among responders is also conceivable. Finally, the suicide prevention practices covered in the survey are complex. Respondents were instructed to consult with the person or people in their organization who were most knowledgeable, but it is possible that some respondents were unfamiliar with the extent of risk screening and/or discharge practices. In some cases, respondents may have reported implementing a practice for which there is a policy or procedure, even if that policy or procedure is not routinely followed. Collectively, these limitations and biases are likely to lead to an overestimate of the reported adoption of suicide prevention discharge practices.

CONCLUSION

This study sought to explore the prevalence of recommended postdischarge suicide prevention activities among Joint Commission–accredited hospitals. The study revealed a significant gap in the implementation of recommended practices—and it seems possible that many hospitals may believe they are implementing these practices without realizing that essential components have been omitted. If such a knowledge deficit exists, it may be helpful to disseminate and implement quality improvement resources, such as standardized protocols that promote high-quality comprehensive formal safety planning, including other well-researched practices such as planning for lethal means safety and making follow-up contact.

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SUPPLEMENTARY MATERIALS

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.jcjq.2024.02.007.

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