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Acute and intensive care nurses' perspectives on suicide prevention with medically hospitalized patients: Exploring barriers, facilitators, interests, and training opportunities

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Abstract

Aims: To explore opportunities for acute and intensive care nurses to engage in suicide prevention activities with patients hospitalized for medical, surgical or traumatic injury reasons.

Design: A qualitative descriptive study.

Methods: We conducted two studies consisting of 1-h focus groups with nurses. Study 1 occurred prior to the onset of the COVID-19 pandemic during January and February of 2020 and identified barriers and facilitators of engaging in an eLearning training in suicide safety planning and engaging patients on their units in suicide safety planning. Study 2 occurred in December of 2020 and explored nurses' perspectives on their role in suicide prevention with patients on their units and training needs related to this. The research took place at an urban level 1 trauma center and safety net hospital where nurses universally screen all admitted patients for suicide risk. We conducted a rapid analysis of the focus group transcripts using a top-down, framework-driven approach to identify barriers, facilitators, strategies around barriers, and training interests mentioned.

Results: Twenty-seven registered nurses participated. Nurses indicated they serve a population in need of suicide prevention and that the nursing role is an important part of suicide care. A primary barrier was having adequate uninterrupted time for suicide prevention activities and training; however, nurses identified various strategies around barriers and offered suggestions to make training successful.

Conclusion: Findings suggest training in suicide prevention is important for nurses in this context and there are opportunities for nurses to engage patients in interventions beyond initial screening; however, implementation will require tailoring interventions and training to accommodate nurses' workload in the hospital context.

Impact: Acute and intensive care nurses play a key role in the public health approach to suicide prevention. Understanding perspectives of bedside nurses is critical for guiding development and deployment of effective brief interventions.

No public or patient involvement: This study is focused on eliciting and exploring perspectives of acute and intensive care nurses.

KEYWORDS
acute care, counselling, critical care, medical nursing, qualitative approaches, suicide, technology

1 | INTRODUCTION

It is estimated that 703,000 people die each year globally by suicide (World Health Organization, 2021) and it is the 12th leading cause of death in the U.S. (Garnett et al., 2022), making suicide prevention an international priority (Henry, 2021). Studies in the U.S. show that the majority of people who die by suicide have had contact with the health care system in the year prior to their death; a finding observed both in general medical and acute care settings (Ahmedani et al., 2014; Gairin et al., 2003). Hospital nurses may be ideally positioned to engage patients in suicide prevention activities; however, the optimal role for nurses in this context has yet to be identified. The present research explores opportunities for acute and intensive care nurses to engage in suicide prevention activities, including suicide safety planning, with patients hospitalized for medical, surgical or traumatic injury at a public safety net hospital.

1.1 | Background

A key component of the U.S. National Strategy for suicide prevention is to increase suicide prevention capacity in healthcare settings (U.S. Department of Health and Human Services (HHS) Office of the Surgeon General & Prevention, 2012). The Joint Commission, which provides oversight, standards, and guidelines for health care organizations nationally, requires screening for suicide risk among patients presenting for behavioural health reasons (Joint Commission, 2019); however, given that medically hospitalized patients often have comorbid behavioural health conditions (Daddario, 2017; Weinberg et al., 2016) and reasons for hospitalization can be risk factors for suicide (March et al., 2014), the Joint Commission also encourages screening of medically hospitalized patients (Joint Commission, 2019). For identified at-risk patients, hospitals then follow policies and procedures to ensure patient safety and provide follow-up resources for patients after discharge. One of the Joint Commission recommendations is safety planning, a brief intervention to identify strategies and resources patients can use to get safely through a suicidal crisis after discharge (Stanley & Brown, 2012) with known effectiveness in reducing suicidal behaviour among at-risk adults (Ferguson et al., 2022).

Training and supporting frontline staff and providers to identify at-risk patients, engage them in preventive interventions that are within the scope of their practice, and make referrals for additional services are critical in meeting suicide prevention goals through the healthcare system. Acute and intensive care nurses may be ideally positioned to engage patients in suicide prevention activities, such as safety planning, which can be helpful not only during but after hospital discharge. This is because bedside nurses spend considerable time with patients and have the opportunity to build trusting collaborative relationships with patients over the course of a hospital stay (Bridges et al., 2013). Nurses also help patients prepare for discharge and teach patients about how to care for their post-discharge medical needs. Suicide prevention activities could potentially be embedded within this routine care. In fact, as part of the national push to engage healthcare providers in the effort to prevent suicide, several states now require nurses to complete suicide prevention training to obtain or maintain their licence to practice.

Although bedside nurses may in some ways be ideally suited to incorporate suicide prevention activities within routine care, there may also be challenges to doing so. First, historically, nurses working on inpatient psychiatric units have been prioritized to receive training in suicide prevention and work with patients with behavioural health comorbidities more generally (Bolster et al., 2015; Daddario, 2017). Without adequate training, nurses working on medical or surgical units may not have the confidence to have sensitive conversations about suicide with patients and may be concerned about saying or doing the wrong thing, worsening patients' suicidality or causing damage to the nurse–patient relationship (Bolster et al., 2015). A related barrier could be that suicidality, perceived as a psychiatric problem, is then considered outside the acute or intensive care nursing role, which focuses to a lesser degree on the mental health needs of patients (Foye et al., 2020). Finally, although of all providers nurses spend the most time with patients, their workloads are demanding and nurses may not have time for engaging in suicide prevention activities with patients.

Although screening for suicide risk is a commonly completed by nursing staff in hospitals adopting universal screening protocols (Snyder et al., 2020), suicide prevention activities beyond screening may be quite novel, making it important to obtain nurses' perspectives on the introduction of such activities. The field of implementation science, "the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and, hence, to improve the quality and effectiveness of health services" (Eccles & Mittman, 2006), offers conceptual tools to explore this further. It is known that effective implementation of healthcare innovations is influenced by a complex interplay of patient, provider, organizational, and policy factors and that assessment of these factors prior to implementation can guide efforts to improve implementation. Researchers have developed various frameworks to help guide the assessment of these factors, such as the Theoretical Domains Framework (TDF; Cane et al., 2012). The TDF synthesizes 33 theories with relevance to healthcare provider behaviour change associated with implementing an evidence-based practice or interventions, resulting in 14 domains covering individual, setting, and organizational-level variables. Knowing which domains are relevant for an intervention in

a given context, implementation teams can then deploy strategies known to be effective in addressing any barriers identified (Powell et al., 2015). For instance, a common barrier to implementation at the provider level is a lack of skill in the intervention, and training can then be deployed to specifically target needed skills.

2 | THE STUDY

2.1 | Aims

We are not aware of any research examining perspectives of acute and intensive care nurses working with medical, surgical, or traumatic injury inpatients about engaging patients in suicide prevention activities. The present research aims to fill this gap by harnessing data generated as part of a multiphase project to design, implement, and evaluate an eLearning training in suicide safety planning for acute and intensive care nurses (Darnell et al., 2021). We present findings from two studies of focus groups conducted with nurses. Study 1 identified barriers and facilitators of engaging in an eLearning training in suicide safety planning as well as barriers and facilitators of engaging patients on their units in suicide safety planning. Study 2 explored nurses' perspectives on their role in suicide prevention with patients on their units and their training needs related to suicide prevention. Since the ultimate goal of this research is to identify opportunities for nurses to engage patients in evidence-based suicide prevention practices, we utilized the implementation science framework, the TDF, to classify barriers and facilitators and shed light on the types of implementation strategies that might be needed in this context.

2.2 | Design

We used a qualitative description design, which aims to collect information about the perspectives and experiences of participants, takes a postpositivist epistemological point of view, and reflects a naturalistic ontological position (Bradshaw et al., 2017). We conducted two studies using focus groups; Study 1 was prior to and Study 2 was well into the COVID-19 pandemic. Nurses participated in only one study. For both studies, participants completed a brief demographics questionnaire prior to the start of the focus groups. Questions asked for gender, race/ethnicity, age, years since they obtained their professional degree and years they have been working at the study hospital.

Challenges faced by the healthcare system and the conduct of research led to the suspension of recruitment for Study 1 focus groups and to the design of those for Study 2. Study 1 focus groups were meant to precipitate a pilot trial of the implementation of suicide safety planning done by nurses with patients on their units. Suicide safety planning was chosen based on Joint Commission recommendations to utilize this brief intervention in hospital settings. Therefore, the aim of Study 1 focus groups was to identify how best to implement an eLearning training for nurses in suicide safety planning as well as how to support nurses in the implementation of the intervention itself. However, the onset of the COVID-19 pandemic was a barrier to initiation of the planned pilot trial of suicide safety planning. Out of concern that the 30–45 min suicide safety planning intervention may require too much time from nurses, particularly in the context of the pandemic, we conducted Study 2 focus groups which were more exploratory in nature to elucidate nurses' opinions and perspectives about engaging patients more generally in suicide prevention activities on the units. We followed Study 2 focus groups with a survey to capture nurses' opinions about the appropriateness of specific activities and interest in getting training in these activities. Activities were selected for the survey because they are known acute risk management strategies in the field of suicide prevention (including components of suicide safety planning) and reflect a range of complexity and the amount of time that would be required to complete them.

2.3 | Sample/participants

The research took place at an urban level 1 trauma center that is also a safety net hospital and academic medical center with 413 inpatient beds and over 1700 nurses. Participating nurses are required to complete 6 h of suicide prevention training at least once for state licensure and universally screen all patients admitted to acute and intensive care units using the Columbia Suicide Severity Rating Scale (C-SSRS) triage version based on hospital policy. The hospital's classification of patients based on the C-SSRS includes “No Identified Risk”, “Low Risk”, “Moderate Risk”, and “High Risk”. Usual care for patients screening at high risk includes suicide precautions such as ensuring the environment is safe from lethal means, having a patient monitor sit with the patient, and notifying the medical team, who will request a consult from the hospital psychiatry service. Low or moderate risk patients are provided suicide prevention resources at discharge (e.g., crisis line) and may request to see a hospital social worker.

For both sets of focus groups, nurses serving medical, surgical, and trauma patients in acute or intensive care inpatient units across the hospital were recruited to participate. Nurses were recruited through unit nurse managers by email or word-of-mouth and flyers posted by the nurse managers in the work area. The lead author attended some unit meetings to advertise the study in person. Nurses contacted the study team via a study email address to express interest.

2.4 | Data collection

2.4.1 | Study 1: Suicide safety planning focus groups

Study 1 focus groups explored barriers, facilitators, and strategies around barriers of not only engaging patients in suicide safety planning on their units but also completing elements of a

workplace-integrated eLearning training program being developed by the research team. The training includes accessing online learning modules, role-playing with a computer chat bot, role-playing with a patient actor, and getting computer-based feedback based on the role-play. The training is described in the study protocol (Darnell et al., 2021).

We utilized resources provided publicly by the Joint Commission on suicide safety planning to explain the intervention to focus group participants, which is based on the Safety Planning Intervention (SPI) developed by Stanley and Brown (Stanley & Brown, 2012). The SPI is a brief, 30–45 min intervention, during which the provider works collaboratively with the patient to identify a multi-step plan for coping with suicidal thinking and urges to prevent suicidal behaviour, which is documented in written form and provided to the patient. Coping strategies include ways to distract from suicidal thinking and seek help from others, both through social support and professional help. The provider helps the patient identify experiences, thoughts, or feelings that commonly lead to suicidal thoughts so that the patient knows when to engage the safety plan. The plan also includes strategies for limiting access to lethal ways to die (e.g., locking firearms).

The first author conducted Study 1 focus groups in-person at the hospital just prior to the onset of the COVID-19 pandemic during January and February of 2020. There were a total of three focus groups in Study 1 ($N = 14$). Participants signed up for a preset 1-h time slot, most commonly during the lunch hour. At the start of each group we completed informed consent procedures and then nurses completed the demographics form. Nurses were oriented to the focus groups with an explanation of why doing suicide safety planning with hospitalized patients is valuable, what suicide safety planning is, and a description of the training model and training elements to be evaluated in a future study. Then, nurses were asked a series of questions to explore potential barriers and facilitators of doing safety planning with patients and engaging in the eLearning training (Table 1). Nurses were remunerated $50 for their time. Focus groups were audio recorded and transcribed for analysis.

2.4.2 | Study 2: Suicide prevention activities and training

The purpose of Study 2 was to broadly explore nurses' opinions about their role in suicide prevention with hospitalized patients and interest in training for suicide prevention. Given the context of the pandemic and increased demand on nurses, the study team sought to explore interest in a greater number of options for nurse suicide prevention activities than only a 30–45 min safety planning intervention. This study included a series of 1-h focus groups and a brief follow-up online survey completed by each nurse who participated in the focus groups. Nurses needed to have access to a computer with high-speed internet and Zoom to complete the

TABLE 1 Focus group questions.

Focus Group Study 1: Suicide Safety Planning and eLearning Training	
1	Suppose we ask you to do a suicide safety planning intervention with a patient, after we provide some training in how to do it:
	What do you think some barriers would be to engaging patients in a 30–45 min suicide safety planning process?
	How would you go about getting the 30–45 min intervention done before the patient is discharged?
2	Suppose we asked you to spend 1 h with an AI virtual suicidal patient (a computer program) via an online web program to practice counselling a patient about suicide:
	What would facilitate you doing it during work hours?
	What would the challenges be of doing this during work hours?
3	Suppose we asked you to role-play doing suicide safety planning with a simulated patient (could be any means of doing this—telephone, in-person, video conferencing):
	Could you do this during work hours?
	What would the challenges be of doing this during work hours?
4	Suppose that we provided you private feedback on your simulated patient performance via a web-based program:
	Could you review this feedback during work hours? What would the challenges be of doing this during work hours?
	What would facilitate you doing it during work hours?
5	How would you feel about being trained to do suicide safety planning with patients on your unit?[a]
Focus Group 2: Nursing Role in Suicide Prevention and Interest in Training	
1	Where do you feel like you wish you could do something, in addition to the C-SSRS screening, for patients who are positive on the screen?
2	In what situations do you feel less confident or comfortable working with patients at-risk of suicide on your units?
3	What role do you think medical/surgical/trauma inpatient nurses should have with patients at-risk of suicide?
4	What skills for interacting with patients at-risk of suicide would you like more training or support in?

[a]Question asked in 1 of 3 focus groups due to time constraints.

remote focus groups and access to the internet to complete the online survey.

The first author conducted Study 2 focus groups virtually after the onset of the COVID-19 pandemic in December of 2020. There were a total of four focus groups in Study 2 ($N = 13$). The time of the group was determined by availability among the first author and the nurse participants. At the start of each group we completed informed consent procedures via an online survey using the online survey tool REDCap. Nurses then immediately completed a brief survey of demographics. Nurses were oriented to the focus groups, which included an explanation of why suicide prevention with hospitalized patients is valuable. Focus group questions explored nurses' opinions about what they would like to do and what they think the role of nurses on their unit should be in terms of suicide prevention, where they may have discomfort working with suicidal patients and their training interests related to suicide prevention (Table 1). The focus groups were designed to elicit nurses' ideas without prompting them with suggested activities. Focus groups were video recorded (although nurses could participate with audio only) and transcribed for analysis. Nurses were remunerated $50 for their participation in the focus group.

After the focus group nurses were sent a link to the post-focus group Research Electronic Data Capture (REDCap) survey (Harris et al., 2019) via email. The post-focus group survey included 13 suicide prevention activities that nurses might do based on best practices for management of acute suicide risk that fit into three categories: Suicide screening and risk formulation, suicide safety planning and its components, and making or facilitating referrals. Nurses were asked to respond to the same two items for each activity: (1) "I think this is a good task for nurses on my unit," with the response options of No, Somewhat/Maybe, and Yes, (2) "I would like to get more training in this" with the response options of No because I already know how to do this, No because of some other reason, Somewhat/Maybe, and Yes. Nurses were remunerated $15 for the survey.

2.5 | Ethical considerations

All participants completed informed consent procedures. For Study 1 groups, which were conducted in-person, nurses signed a hard-copy consent form and were provided with a copy. For Study 2 groups, which were conducted virtually, nurses reviewed an online consent form via an online survey, denoting consent by typing their name into the survey and submitting the survey. Verbal consent was given at the start of each focus group by all participants. We took steps to maintain the confidentiality of the focus groups, including converting audio/video to de-identified transcripts for analysis. All procedures were reviewed and approved for Study 1 [STUDY00007344] and determined to be exempt for Study 2 [STUDY00011507] by the University of Washington Institutional Review Board.

2.6 | Data analysis

The first and second authors conducted a rapid analysis of the focus group transcripts informed by Hamilton (Hamilton, 2013) using a top-down, framework-driven approach. Study 1 catalogued the barriers, facilitators, and strategies to overcome barriers of engaging patients in suicide safety planning as well as engaging the eLearning training program. Study 2 catalogued the activities nurses said they would like to do besides screening and, when noted, the barriers, facilitators, and strategies for addressing barriers of engaging patients in these activities that came up spontaneously during the focus groups. Study 2 also catalogued what activities nurses explicitly said they would consider out-of-role, for which activities they would like additional training, and other commentary on suicide prevention and training that emerged through the groups that the research team believed is important to understanding the implementation context.

For both studies, we subsequently classified barriers and facilitators according to the TDF (Cane et al., 2012) (Table 2). Coders used definitions provided by Cane and colleagues that were adapted to the acute/intensive care nursing and suicide prevention context.

2.7 | Rigour

The study employed rigorous methods to collect and analyse the data (Hamilton, 2013). Focus groups were held in a consistent fashion. They were set for 1 h each, nurses were oriented in the same manner to the focus group, and questions were asked in the same order. Coders both have experience in suicide prevention research and implementation science. The first author is a psychologist and researcher with experiencing leading content analyses and the second author has a master's degree in adult education. Coding utilized transcripts, consistent definitions, and worksheets to standardize the process. Each coder first reviewed and independently coded each transcript and then met to discuss any discrepancies and come to consensus.

3 | FINDINGS

3.1 | Study 1: Suicide safety planning and training

3.1.1 | Participants

Participants in Study 1 were 14 female registered nurses who identified as primarily White or Caucasian ($n = 11$, 79%). The remaining three nurses identified as African American or Black, Asian, and Native Hawaiian or Pacific Islander. Nurses worked in acute ($n = 11$, 79%) and/or intensive care ($n = 4$, 29%) units and were between 3 and 30 years out of their terminal degree ($M = 15.22$, $SD = 11.08$).

TABLE 2 Definitions used to code barriers, facilitators, and Theoretical Domains Framework (TDF) domains.[a]

Construct	Definition
Barrier	Something (circumstance or process) that makes a process harder or obstructs it
Facilitator	Something (circumstance or process) that makes a process easier or possible
TDF domain	
Knowledge	Knowing or not knowing about the topic or how to do something (e.g., knowing what suicide safety planning is and how it is done)
Skills	Having or not having the skills to do something (e.g., being able to do suicide safety planning)
Social/professional role and identity	Having to do with the professional role of nurses and other persons in the healthcare environment
Beliefs about capabilities	Beliefs, either positive or negative, about what one is able to do (e.g., self-confidence or self-perceived competence, or a lack thereof)
Optimism	Confidence or expectation that things will happen for the best or goals will be met
Beliefs about consequences	Beliefs about what the outcome will be, whether positive or negative, when engaging in an activity (e.g., patients will or will not benefit from safety planning)
Reinforcement	Something that increases or decreases the probability of doing an activity (e.g., safety planning) through the use or lack of incentives, consequences, reinforcements and punishments (e.g., positive or negative feedback on safety planning skills)
Intentions	Having the intention or not to engage in an activity (e.g., planning to do safety planning with patients on the unit)
Goals	Wanting to achieve a specific outcome
Memory, attention and decision process	The ability to retain information, focus selectively on aspects of the environment and choose between two or more alternatives
Environmental context and resources	Resources available or not available in the unit/hospital, the culture of the setting, stressors in the environment, or any circumstance in the work context that either creates a barrier or facilitator to engaging in an activity
Social influences	Interpersonal dynamics that can cause individuals to change their thoughts, feelings or behaviours (e.g., peer norms; institutional hierarchy)
Emotion	A complex reaction pattern, involving experiential, behavioural, and physiological elements which may be experienced as either positive or negative (e.g., anxiety, joy, sadness, excitement). This also includes experiences of stress and burnout
Behaviour regulation	Anything aimed at managing or changing objectively observed or measured actions (e.g., self-monitoring to improve the quality of safety plans)

[a]Definitions were adapted from the 14 domains described by Cane et al. (2012) for the acute/intensive care nursing context.

3.1.2 | Engaging patients in suicide safety planning

Barriers and facilitators

For many of the TDF domains, nurses mentioned both barriers and facilitators of safety planning that were relevant to the domain and mentioned more barriers than facilitators overall. Quotes from participants to support the findings can be found in Tables 3. A common barrier across all focus groups was not having enough time to do a 30–45 min intervention, which was coded as the Environmental Context and Resources TDF domain. Similarly, nurses mentioned that the nursing workflow in general can be a barrier to intervening with patients, particularly because nurses are busy and frequently interrupted. Nurses warned that if they do not have adequate time dedicated to the intervention or it is not prioritized into the workflow, there is a risk that nurses will "check the box" of having done the intervention without having given it full attention. In contrast, in the Environmental Context and Resources domain, nurses mentioned that they are routinely assigned to the same patients, which allows them to develop collaborative and trusting relationships with patients and could facilitate conversations about sensitive topics such as suicide. The other barrier mentioned by all three focus groups of Study 1 was that even if the nurse found time to do the intervention, there was the possibility that some patients would not be ready, willing, or able to engage in the intervention.

Strategies around barriers

Nurses generated many strategies to overcome workflow challenges and find 30–45 min of uninterrupted time. These included: (1) having the charge nurse assign fewer patients to the nurse who is working with the patient needing the safety planning intervention done on a given day, (2) having specific nurses who specialize in doing the safety planning, (3) having a fellow nurse cover other patients and work phone/pager while they are doing the intervention, (4) splitting up the work of the intervention between nurses or across days (including sharing with the nurses who do discharge planning), (5) using existing times that are already set aside for longer nurse–patient interactions (e.g., patient education, family conferences, non-painful wound care), (6) and having the patient complete some of the plan on their own. Nurses noted that although discharge may seem conceptually like a

TABLE 3 Study 1 barriers and facilitators of engaging patients in suicide safety planning ($N = 14$).

#	Number of groups mentioned	Barriers	Quotes	TDF domains
Barriers				
1	3	Not having enough time to do a 30–45 min intervention. Nurses are busy and units are short-staffed	"I cannot imagine being able to sit down 30 min straight with somebody." "When am I gonna have time to do that? I do not even have time to pee."	Environmental context and resources
2	3	Patients may not be ready, willing, or able to engage in the intervention	"I think the most difficult part would be just how engaged the patient is, and how much they want to complete it as well. Some patients I could see it being really easy, and some patients, not so much."	Environmental context and resources Beliefs about consequences
3	2	Patients may not have adequate privacy to talk openly about their experience	"And it [the intervention] should not be with a roommate." "The other thing I find too is that the family will say, 'Nope, he's fine. He's fine. Oh no, he's always like this. He's fine,' and you know you cannot really get, I mean, the patients I feel like the patients are sometimes pressured to live up to what the family is saying, and the family does not let you have any time to like really - I mean because that's just a time that you need to be alone."	Environmental context and resources
4	2	Nurses may not have or be able to maintain the knowledge and skills to intervene with patients related to suicidality	"Because you really do not know what to say. You do not want to say the wrong thing." "And so, you know, practice, you need to practice it you need to have experience, you need to feel confident in how to do this."	Knowledge Skills Beliefs about capabilities Beliefs about consequences
5	2	Nurses are frequently interrupted to address other patient needs	"But in the ICU I could be sitting down in the middle of this conversation and if someone codes, I'm like, later. I gotta go."	Environmental context and resources
6	1	Patients may not see talking about suicide with the patient as the nurse's role	"We're nurses, we are not, you know, the mental health people - so a lot of the times we are seen as mental health as well, I know that - but it's completely different when they are actually talking to Psych, so they open up more."	Beliefs about consequences
7	1	The topic of suicide may be uncomfortable for nurses	"I remember when I was young, and somebody would be suicidal I felt awfully awkward - like, I could not."	Emotion
8	1	Patients may report suicidality without experiencing suicidal thoughts for other reasons (e.g., to remain hospitalized)	"And sometimes that happens too, you know, I hate to say it, when you are trying to get them discharged … they do not want to be out on the street, and they say that they will harm themselves if they are discharged."	Beliefs about consequences
9	1	Nurse could get distracted and forget to do the intervention	"It's true, people can get distracted and just chart that they did it."	Environmental context and resources Memory, attention, decision-making
10	1	Other people are already doing suicide prevention activities with patients, so there may not be a need for nurses to do it	"If we do have designated suicidal patients Rehab Psych sees them on a daily basis."	Environmental context and resources Professional role
11	1	Adding a new responsibility that requires emotional labor may add to stress and burnout nurses are already struggling with	"It's how, how you can be there for the patient, but how to protect yourself." "You cannot be everything, but you have to be empathetic or supportive, but you also have to be supportive for yourself."	Environmental context and resources Emotion

(Continues)

TABLE 3 (Continued)

#	Number of groups mentioned	Barriers	Quotes	TDF domains
12	1	For patients in the ICU that may be dying, it may not be appropriate to address suicidality	"I think it kind of is weird because you know people are really so close to death and now someone is talking about suicide—is it because they are going to die anyways? Or is their life going to be so miserable after this accident that you know maybe suicide is the best option for him? You know with all those things that you do not want people to think and, you know, especially in that high, high, intense environment, you know, people will just like spiral."	Beliefs about consequences
13	1	Psychiatric care may not be part of the acute or intensive care nursing role	"I do not know enough about psych patients to even - I barely can talk to them now because they drive me crazy."	Professional role
14	1	Nurses may not see the intervention as part of their role. This may include a desire not to extend their role to what happens to the patient after inpatient care	"And you just, it's like you cannot, that's not your job." "You feel responsible, like I do not want to be sitting at home going I hope 'Bruce' is okay, I wonder what 'Bruce' is doing … I want to be able to walk away and go, okay I did a good job, 'Bruce' is safe, 'Bruce' has a plan. 'Bruce' is not my monkey, this is not my circus."	Professional role Emotion Beliefs about consequences
Facilitators				
1	2	Nurses are talking to patients about suicidal thoughts often on the unit already, screen patients as part of the hospital policy, and know how to ask about suicidal thoughts	"Yeah, [screening] is on every admission that we do with every patient, and I feel like most nurses are pretty comfortable to, when, if a patient is expressing feeling down, to you know, ask them, are you feeling suicidal, to not hesitate to go to that and then if they say no then back up to where, where they are right now, but assessing safety first."	Environmental context and resources Knowledge Skills Beliefs about capabilities
2	2	Nurses report seeing suicidal patients on their units, are aware that they are working with an at-risk population, and think that addressing suicidality is relevant to the population	"We've had quite a few elderly patients that have like they do not want to live - oh, actually, we just discharged a patient yesterday that basically they start noticing that they cannot do what they used to do, they are needing more help, they used to be really independent and noticing that their memory is not the same so it's like they do not want to live anymore. Their friends are dying."	Environmental context & resources Beliefs about consequences
3	2	Nurses spend a lot of time with the patients and patients often feel comfortable with the nurse	"I feel like the nurse is often one of the more intimate relationships the person has, so, to take this kind of time would be great."	Environmental context and resources Beliefs about consequences Professional role
4	1	The organization has a history of taking steps to improve suicide care	"I have been here a very long time and remember when the protocol or policy was, you get a patient who's come in with a suicide attempt, and instantly they go into locked restraints … and that is no longer the policy. Thank God. That was like insult to injury."	Environmental context and resources
5	1	Nurses see the value of having uninterrupted time to do the intervention with the patient	"I'm going to be in this room for 30 minutes because [I need to be] uninterrupted. It's good to be uninterrupted. I think it's important."	Beliefs about consequences Goals
6	1	The intervention will help patients	"I think that the motivation is going to be there for them to go through this safety plan, more often than not, not always, but I think that they do want to feel safe, and so doing this, the safety plan, knowing that it's kind of in their best interest."	Beliefs about consequences

Abbreviation: TDF, Theoretical Domains Framework.

good time to talk about safety planning, it is actually a busy time and can happen suddenly, making it less ideal for this intervention.

Other strategies for overcoming barriers mentioned were to support nurses in maintaining adequate knowledge and skills in safety planning and included (1) offering training in skills for talking to patients about suicide, (2) having a "cheat sheet" for what to say and how to do the intervention that could be carried on their person, and (3) having some nurses who specialize in the intervention who can support skills of other nurses. They also suggested using private conference rooms when patients do not have adequate privacy in their rooms.

3.1.3 | Engaging in a Workplace-Integrated eLearning Training in Suicide Safety Planning

Barriers and Facilitators

For many of the TDF domains, nurses mentioned both barriers and facilitators of engaging in a work-place integrated eLearning training for safety planning that were relevant to the domain and mentioned more barriers than facilitators overall. Quotes from participants to support the findings can be found in Table 4. Similar to the barrier noted about not having adequate time for safety planning, nurses mentioned that time can be a barrier if they are not allotted time for training, which was coded as the Environmental Context and Resources domain. In contrast, a facilitator related to this domain is that nurses mentioned frequently doing online workplace-integrated training using a Learning Management System, have familiarity with online learning, and that their workplace routinely makes time available for this type of training. The most frequent facilitator mentioned was nurse motivation for training in suicide prevention.

Strategies around barriers

Nurses identified strategies to overcome time as a barrier, including setting up the training so that it can be accessed intermittently at various points during the day in between other tasks (which nurses often currently do for required educational activities), having in-service or individual blocks of time freed up from clinical tasks for the training, and making learning materials easily accessible, such as emailing role-play feedback directly to nurses.

Nurses offered suggestions to avoid having busy nurses "click through" training materials without adequately engaging with it. These included ensuring the eLearning material does not allow the trainee to skip content and creating content that is interactive and engaging. Nurses also thought shadowing other nurses using the skills with actual patients would be an engaging training strategy. Strategies for overcoming potential aversive aspects of being negatively evaluated included completing role-plays in private (to avoid negative peer evaluation) and waiting until the end of a work-day to review feedback on the role-play (to avoid negative impacts on mood and self-confidence). They also mentioned ensuring that the feedback is interpreted for the nurses so they know what actions to take to improve their skills. They also cautioned against using real patient encounters for training and evaluation, explaining that their patient population's ability to engage in safety planning will likely vary considerably, and may not be fair assessments of nurses' abilities.

3.2 | Study 2: Suicide prevention activities and training

3.2.1 | Participants

Participants in Study 2 were 13 female (n = 11, 85%) and male (n = 2, 15%) registered nurses who identified as primarily White or Caucasian (n = 10, 77%). The remaining three nurses identified as Hispanic or Latinx, Asian, and Native Hawaiian or Pacific Islander. Nurses worked in acute (n = 10, 77%) and/or intensive care (n = 3, 23%) units and were on average 6 years out of their terminal degree (min = 0, max = 19, M = 6.38, SD = 6.01).

3.2.2 | Additional activities to screening for suicide risk

Combined across Study 2 focus groups, nurses mentioned 10 additional activities they would like to do for patients at-risk of suicide (see Table 5), which included ways to support patients while they are in the hospital as well as after discharge. For instance, nurses mentioned wanting to help moderate-risk patients generate plans for staying safe in the hospital while awaiting a consultation from psychiatry. They also mentioned wanting to help patients and their families generate a plan for reducing access to lethal means and making the home environment safe after discharge. Common barriers had to do with lacking knowledge or skills for how to support patients in these ways. One group mentioned it could be helpful if medical inpatients could attend therapy groups during their stay, although nurses recognize this would generally not be in the nursing role. Across the four groups, only one mentioned an activity that they thought nurses should not be asked to do because it is out-of-role, which was to do discharge planning related to suicide prevention or treatment services, since the hospital has other staff who specialize in this.

All four focus groups mentioned wanting to have therapeutic conversations with patients at risk of suicide and all four mentioned that not having time to do this is a barrier. Nurses generated strategies around barriers for having these conversations, including talking with patients while providing uninterrupted (and not painful) wound care, having conversations in the evening when there is less medical care occurring, and increasing staffing to cover nurses to have uninterrupted time. Considerations regarding the pros and cons of the timing of conversations about suicidality included: (1) having these conversations upon admission seems to be an appropriate time because patients are being screened for suicide risk already; however,

TABLE 4 Study 1 barriers and facilitators of engaging in training for suicide safety planning ($N = 14$).

#	Number of groups mentioned	Barrier	Quotes	TDF domains
Barriers				
1	2	Nurses will need adequate allotments of time during work hours to do the training	"So they have to kind of release you from your duties a little bit to be able to take that educational." "So, I do schedule people for our LMS [Learning Management System continuing education]. So maybe to do one person you work eight hours on the floor, and for your last four I take you for your LMS."	Environmental context and resources
2	2	Nurses have experiences with continuing education or in-service eLearning that is not engaging and they will click through the material quickly to save time and not absorb the material	"You know, and that six-hour thing [online suicide prevention training], in my mind it was another box to check, just, you know, well, okay, did that thing, click click click click. Yep, yep. Click." "Got to be engaging and interactive. I mean I do not want to see a PowerPoint."	Environmental context & resources Memory, attention, and decision-making
3	2	Some nurses may find being negatively evaluated by peers during a role-play aversive if this part of the training is done as an in-service with other nurses present	"The big thing is like you worry about the person who is seeing it [role-play] judging you."	Environmental context and resources Beliefs about consequences Reinforcement
4	2	Receiving negative feedback could be unpleasant and, especially during work hours it could result in negative affect and interfere with work performance	"I do not know if I'd be excited if I got bad results, I guess." "My only concern is reviewing it during work hours. If you get someone who has that anxiety of like test results and they do poorly on it, and they have got a full load of patients, and it affects them for the rest of the day."	Beliefs about consequences Emotion Reinforcement
5	1	Potentially not understanding the feedback based on the role-play provided by the automated system	"Is there someone you'd talk to you about the - like if you do not understand the feedback?"	Beliefs about consequences
6	1	If role-plays with patients are scored by the automated system, this may not be a good indicator of performance since patients may not want to engage in the intervention or could present other challenges to the nurse's ability to demonstrating the skills	"One thing I know is that our patients are very unique…would it [scores on the feedback report] turn out differently with our patients?"	Beliefs about consequences
7	1	Some nurses may not have adequate skills to use the computer systems	"That might be for older nurses doing all computer-based chat thing … I'm thinking, there's a lot of people that do not even like our charting system." "Might be some resistance around computer-based learning systems."	Knowledge Skills Beliefs about capabilities
8	1	It may require more than 4 h of training for nurses to have adequate skills for interacting with patients with psychiatric diagnoses and suicide risk	"Yeah that's where I'm like choking, when you are saying four and a half hours, I'm like, I do not know enough about psych patients to even - I barely can talk to them now."	Knowledge Skills Beliefs about consequences
Facilitators				
1	3	Nurses would like more training and to feel more confident in their skills for talking to patients about suicidality	"I would like to feel more comfortable … I do not know how to talk to them [patients experiencing suicidality] and I do not want to say the wrong thing, so my thing is just going straight to Psych and having them, talk to them." "That's one of my focuses on my unit is the education aspect, of not only onboarding but continued education for our staff, and I think there's definitely tools that we are missing that can just bring that comfort level [to addressing the needs of suicidal patients]."	Knowledge Skills Beliefs about capabilities Beliefs about consequences

TABLE 4 (Continued)

#	Number of groups mentioned	Barrier	Quotes	TDF domains
2	2	The hospital already uses a Learning Management System with eLearning to support nurses in completing required workplace trainings during work hours	"So we have LMS … I think it'd be similar to that. And if it was a requirement, you'd have to complete it."	Environmental context and resources
3	2	There is a continuing education requirement for licensure in WA State requiring a 6-hour one time training in suicide prevention for nurses, which some have found helpful	"I think it's [the state 6 hour continuing education in suicide prevention requirement] great because then you can identify and, like, say to somebody else who has more expertise, you know, can you handle this, and it's more of a conversation you know, it's more out there."	Environmental context and resources Beliefs about consequences
4	1	There is time set aside routinely for nurses to practice new techniques or skills during an in-service	"We had to do like a 4-hour acute care skills things like every year where there's like different stations that people go to those are pretty quick, they are like 10 minute little stations people rotate through."	Environmental context and resources
5	1	Some nurses specifically liked the idea of getting feedback on the role-play to know if they are doing the intervention correctly	"I'd want to see it to make sure that I'm getting that and doing it correctly and stuff like." "As long as there's a way to improve…'cause this is our job. Yeah, you want to know, you want to be able to do this [the intervention]."	Beliefs about consequences Reinforcement Behavioural regulation Goals

Abbreviation: TDF, Theoretical Domains Framework.

this is also a difficult time because patients are adjusting to being admitted to the unit, and (2) having these conversations at discharge or when getting ready for discharge may be contextually appropriate, but discharge can be a busy and harried time and can happen unexpectedly.

Nurses emphasized the importance of providing a space for patients to talk about their suicidality since the inpatient hospitalization may be the only opportunity patients have to do this. They noted that the nurse–patient relationship can be close and collaborative, with nurses often working consistently with the same patient; however, they also felt patients needed to perceive the nurse as available and not overly distracted to feel comfortable discussing sensitive topics.

3.2.3 | Concerns about the availability of services for patients

Nurses spontaneously raised concerns about the limitations of suicide prevention services for patients both while they are in the hospital and once they are discharged. For instance, nurses mentioned that it can be challenging to obtain consultation services, such as rehabilitation psychology or consultation psychiatry, and that there may be limitations to how much these services can address pre-existing mental health needs other than suicidality. Nurses also mentioned they do not know what the available outpatient resources are for patients but had doubts that effective services were available, or that their patients could access this care since their population generally has lower income and limited resources for getting to care.

3.2.4 | Training interests and opportunities

Nurses mentioned several areas of potential need and interest for training in suicide prevention. An interest in training in therapeutic interactions with patients at-risk of suicide was mentioned in three focus groups. Although nurses currently do screening, some nurses mentioned wanting more training in this and wanted to be certain that they have done everything they should for the patient. Other areas included coping with extreme crises (e.g., a patient acquires lethal means in the hospital), working with patients with psychotic symptoms, clarifying the role of nurses in psychiatric care, and learning more about the nature of outpatient services available to patients. Related to this, nurses mentioned wanting a resource list they could provide patients, ideally tailored to the patient's location. Nurses also identified ways in which training could be most effectively carried out, including the importance of providing opportunities for skills practice through role-plays, the potential benefit of seeing other nurses model the skills in routine care, and ensuring online training is as interactive and engaging as possible.

3.2.5 | Post-focus group survey of suicide prevention activities

All Study 2 nurses completed the post-focus group survey of suicide prevention activities (see Table 6). The majority of nurses thought screening, risk assessment, suicide safety planning and its components, supporting patients to use suicide prevention applications on smartphones, and connecting patients to hospital-based services

TABLE 5 Study 2 focus groups within-role activities with sample quotes, and barriers and facilitators mentioned by nurses ($N = 13$).

#	Activities	Barriers	Barriers—TDF	Facilitators	Facilitators—TDF
1	Having therapeutic interactions with patients at-risk of suicide[a] *Quote*: "Being able to have these conversations with patients in a therapeutic way, being able to destigmatize it."	1. Not having enough time,[a] made worse by being understaffed. 2. Patients may not be ready or able to engage 3. Not comfortable talking to patients about suicide 4. Nurses are frequently interrupted. 5. Perception that they cannot help patients with suicidality with the available time and resources 6. Perception that other hospital staff roles may be more appropriate for having these conversations (e.g. spiritual care)	1. Environmental context and resources 2. Beliefs about consequences 3. Beliefs about capabilities 4. Professional role	1. Nurses are intentionally scheduled to work with the same patients and build trusting relationships 2. Some nurses have a background in psychiatric nursing they can draw from 3. Perception that nurses have skills for listening and communicating with patients in crisis	1. Environmental context and resources 2. Beliefs about consequences 3. Beliefs about capabilities 4. Knowledge 5. Skills
2	Setting up an immediate safety plan for moderate-risk patients awaiting psychiatry consult *Quote*: "I feel like for those patients that are in like more of the grey area … I guess of like a safety plan or whether that is what we can create in the short term before they are able to be seen by a psychiatrist."	1. Not knowing what would go into this	1. Knowledge		
3	Supporting patients and their families after discharge to limit patient's access to lethal means *Quote*: "And so maybe like if we know, again, what is their choice whether it's pills or a gun or something maybe just removing that from the household and making sure it's a safe environment to go back to."				
4	To be able to place rehabilitation psychology consultations for patients during their hospital stay *Quote*: "I do wish that nursing had a little bit more like power or were allowed to place rehabilitation psychology consults."	1. Not currently able to place orders for consults	1. Environmental context and resources 2. Professional role	1. Nurses are in a good position to know that a consult is needed because they work closely with patients	1. Environmental context and resources 2. Professional role

TABLE 5 (Continued)

#	Activities	Barriers	Barriers—TDF	Facilitators	Facilitators—TDF
5	Educating patients on what to expect after discharge, including if pursuing outpatient referrals or being admitted with inpatient psychiatry *Quote*: "I think that would be good to have an education piece for nursing about it, just based on like, what does life look like outside of the hospital when you have a psychiatric condition and need follow-up, so we can prepare people."	1. Not knowing what these services are like	1. Knowledge	1. Helping patients prepare for discharge is part of the nurse role	1. Professional role 2. Goals
6	Helping patients create a plan for post-discharge that helps build hope for the future *Quote*: "I'd like to be able to, you know, listen, but then also like come up with a concrete plan of like, here's what we are going to do to like get through this…to be able to give them like some hope and like some sort of plan for the future would be really beneficial."	1. Not knowing how to do this	1. Knowledge 2. Skills		
7	Making referrals to other services in the hospital *Quote*: "Besides just contacting our immediate provider team it's like what resource do we refer them to in the hospital?"	1. Not having knowledge about the other services 2. Perception that in-hospital services are limited, particularly at night	1. Knowledge 2. Environmental context and resources	1. Some nurses have experience making referrals for patients who are experiencing depression	1. Knowledge 2. Skills
8	Supporting patients at night while waiting for day shift providers to help them with distress and suicidality. *Quote*: "There's that awkward time say from like 11 pm to 6 am, where [inpatient psychiatry] is really our only resource—that's about it. And it's like, we call them, but they are also busy with their acutely ill patients."				
9	Being included in discussions about patient safety with providers and being debriefed about outcome of assessment process *Quote*: "[That nurses participate in] a pre or post huddle about, 'these are our concerns' before you have this conversation about letting them [patients] all out of whatever they are~~they're~~ in, or before you make a decision to, you know, discontinue the patient monitor."				
10	Supporting patients by reducing the amount of stress they are exposed to in their environment (e.g., "~~"~~trauma precautions"~~"~~ of trauma-informed care) *Quote*: "Emotionally is there things that we are doing that are causing emotional trauma in the hospital… like what are ways we can reduce the noise for patients?"			1. Family and friends can offer insight for the nurse about how best to support the patient	1. Environmental context and resources

Abbreviation: TDF, theoretical domains framework.

[a]Mentioned by all four focus groups.

TABLE 6 Study 2 nurse responses to the post-focus group survey ($N = 13$).

	I think this is a good task for nurses on my unit			I would like to get more training in this			
	No	Somewhat/Maybe	Yes	No, I already know how to do this	No, some other reason	Somewhat/Maybe	Yes
	n (%)			*n* (%)			
Screening and risk formulation							
1. Asking all patients on the unit about suicidality to find patients who are at-risk of suicide (e.g., using the C-SSRS triage screener)	0 (0)	4 (31)	9 (69)	3 (23)	0 (0)	2 (15)	8 (62)
2. Following up on screening by further assessing the level of patients' acute risk by asking about both risk and protective factors	1 (8)	2 (15)	10 (77)	0 (0)	0 (0)	3 (23)	10 (77)
Suicide safety planning components							
3. Engaging patients in suicide safety planning	1 (8)	3 (23)	9 (69)	1 (8)	1 (8)	3 (23)	8 (62)
4. Engaging in empathic listening to patients about their suicidal thoughts and what may be contributing to these thoughts or their desire to die	0 (0)	3 (23)	10 (77)	1 (8)	0 (0)	5 (38)	7 (54)
5. Engaging patients in a discussion about and plan for reducing access to lethal means of suicide	1 (8)	3 (23)	9 (69)	1 (8)	1 (8)	3 (23)	8 (62)
6. Giving patients a suicide crisis line to use after discharge	0 (0)	0 (0)	13 (100)	2 (15)	0 (0)	3 (23)	8 (62)
7. Discussing how to use and encouraging the use of a suicide crisis line	0 (0)	1 (8)	12 (92)	2 (15)	0 (0)	3 (23)	8 (62)
8. Teaching patients a coping skill to get through a period of increased distress or distract from suicidal urges.	0 (0)	3 (23)	10 (77)	2 (15)	1 (8)	1 (8)	9 (69)
Use of smartphone applications for suicide prevention							
9. Giving patients information about or access to a suicide prevention smart phone application that guides patients in using coping skills for suicidal urges	0 (0)	3 (23)	10 (77)	0 (0)	1 (0)	3 (25)	8 (67)
10. Discussing how to use and encouraging the use of a suicide prevention smart phone application that guides patients in using coping skills for suicidal urges	0 (0)	4 (31)	9 (69)	0 (0)	0 (0)	3 (23)	10 (77)

TABLE 6 (Continued)

	I think this is a good task for nurses on my unit			I would like to get more training in this			
	No	Somewhat/Maybe	Yes	No, I already know how to do this	No, some other reason	Somewhat/Maybe	Yes
	n (%)			*n* (%)			
Referrals							
11. Providing resource and referral lists or information for mental health services for patients to use after discharge	0 (0)	2 (15)	11 (85)	0 (0)	1 (8)	4 (31)	8 (62)
12. Making mental health referrals for patients to receive during their hospital stay	1 (8)	0 (0)	12 (92)	4 (31)	1 (8)	3 (23)	5 (38)
13. Facilitating or coordinating a referral for patients to outpatient mental health services	6 (46)	4 (31)	3 (23)	0 (0)	5 (38)	6 (46)	2 (15)

were good activities for nurses on their units to do and wanted additional training in these areas. The one activity with less support or interest from nurses was making and facilitating referrals outside of the hospital.

4 | DISCUSSION

This qualitative, descriptive study examined the perspectives of inpatient acute and intensive care nurses at an urban level 1 trauma center and safety net hospital regarding greater nursing involvement in suicide prevention activities with patients identified as at-risk of suicide. In Study 1 focus groups nurses were queried on their perspectives about delivering a suicide safety planning intervention with patients on their units as well as completing an eLearning training to learn how to deliver this intervention. In Study 2 focus groups nurses reflected more generally on the types of suicide prevention activities that could be performed by nurses with at-risk patients. Findings from both Study 1 and Study 2 point to the perceived opportunity and complexity of expanding the role of acute and intensive care nurses in suicide prevention with hospitalized patients. In both studies nurses indicated they serve an at-risk population in need of suicide prevention and that the nursing role is an important part of suicide prevention. Study 2 focus groups and survey responses also indicated support for a broad range of brief suicide prevention activities beyond the current role nurses have of implementing the hospital's universal screening protocol.

The application of the TDF to focus group data highlights the complexity of the implementation context, as we observed both barriers and facilitators of suicide prevention activities within most of the observed domains. For instance, in the Beliefs about Capabilities domain, nurses reported confidence in working with suicidal patients since they complete suicide risk screening and routinely care for suicidal patients on their units (facilitator for safety planning); however, they also reported a lack of confidence in having more in-depth therapeutic conversations with patients about suicidality (barrier for safety planning).

Concerns mentioned by nurses about engaging patients in suicide prevention activities are consistent with those suggested in previous research, including having limited training in delivering suicide prevention interventions and concern about "saying the wrong thing" or lacking confidence in effectively helping patients with their suicidality (Bolster et al., 2015). Some nurses also shared the perspective that addressing psychiatric needs (and perceiving suicidality as such) is potentially outside the scope of their areas of clinical expertise (Foye et al., 2020). Although nurses in our study expressed motivation for expanding their role in suicide prevention, we do not know if these findings will generalize to the full population of nurses at the hospital. Future survey research could assess perspectives of nurses more broadly. If nurses hospital-wide are not similarly motivated to engage patients in suicide prevention interventions, it may be that a subset of nurses most passionate about taking on suicide

prevention tasks would do so on their units. Such a model is common in nursing; for instance, units may have diabetes or wound management experts who self-select into this role, receive additional training in this area, and then annually take refresher workshops.

Strategies that address barriers within the Environmental Context and Resources TDF domain are needed to support nurse delivery of preventive interventions that can help patients not only stay safe during hospitalization but also after hospital discharge. A challenge perhaps ubiquitous among healthcare settings is having adequate time to address the many priorities of patient care. In acute and intensive care, nurses are already balancing many competing patient care needs, and increasingly, with fewer available experienced staff (Sullivan et al., 2022). Nurses noted that having adequate time means also being able to give patients their full attention for whatever length of time is made available, without the interruptions that may otherwise be common. A recent review of research with adult patients experiencing suicidality in hospital settings corroborates this concern and indicates patients will avoid talking about their suicidality with nurses who appear busy despite wanting to have those conversations (Vandewalle et al., 2020).

4.1 | Implications for training and implementation of suicide prevention activities

Study nurses expressed interest in receiving training in suicide prevention and offered suggestions for how best to integrate such training into routine workflow. This interest in training was mentioned despite the fact that nurses in the state are required to complete 6 h of continuing education in suicide assessment, treatment and management. Offering a general training broadly applicable to nurses is an important part of a public health approach to suicide prevention; however, it may still be necessary to offer tailored training in the specific skills acute and intensive care nurses need to support patients in their context. A recent review of empirically evaluated suicide prevention training programs for nurses indicates moderate short-term benefit on self-reported competence, knowledge, and suicide-related attitudes; however, there is limited data on long-term benefit or on how programs impact actual skills used in practice (Ferguson et al., 2018); whether general trainings are adequate for acute and intensive care nursing is an area in need of future research.

Findings from the application of the TDF point to the need for training that not only increases knowledge and skills, but also increases nurses' Beliefs about Capabilities (i.e., confidence in using the skills). Nurses have strengths to harness, such as the existing alliance with patients and experience caring for suicidal patients routinely on the units. Additional support may be needed, however, to ensure nurses have the opportunity to build confidence through practicing skills in role-plays and getting feedback on their skills practice. Simulation, or role-play with feedback and coaching is essential in building skills in counselling-based interventions such as suicide safety planning (Piot et al., 2022). Nurses mentioned that they value role-play practice and that simulating patient encounters is a normative part of nurse training; however, eLearning trainings must find novel ways to create such opportunities.

Although virtual or online continuing education is increasingly popular and appealing from an accessibility and scalability perspective, nurses in our study underscored the need to ensure trainings are engaging and interactive to ward off tendencies for people to skim the material. This suggestion is consistent with a recent review and meta-analysis of internet-based continuing education for health professionals which found that the degree of interactivity, having practice exercises, learning through repetition, and offering feedback on the application of knowledge and skills are key qualities of educational programs associated with positive training outcomes (Cook et al., 2010; Piot et al., 2022). Unfortunately, there is limited knowledge about how well eLearning continuing education training programs translate to improved patient care (Rouleau et al., 2019).

Instrumental supports, such as tailored resource lists for patients or cue cards with planning steps that could be carried on their person, could also help to build confidence. Nurses also mentioned that a barrier could be infrequent use of skills with actual patients if the rates of at-risk patients are low on their units, which may speak to the importance of offering refresher trainings. However, it may also be helpful to know which units to prioritize for suicide prevention and therefore which nurses to train so as to focus training resources on those units.

Findings point to training that addresses Beliefs about Consequences (i.e., beliefs about the potential beneficial impact for patients). Nurses pointed out that attempts to intervene could be rendered ineffective if patients themselves are not ready, willing, or able to engage in safety planning. Further, they noted that readiness could vary over the course of their hospital stay, and may be more of a barrier in intensive care since those patients are more likely to lack capacity to interact. Training needs to not only teach nurses how to do the intervention but also provide support in identifying the best timing of the intervention with patients based on patients' readiness to engage.

Addressing barriers related to the Environmental Context and Resources TDF domain, such as strategies to create uninterrupted time with patients, would require changes to how nurses' time is allocated and structured at an administrative level. Administrative decisions are made at acute and intensive care unit, hospital, and national levels. For instance, hospitals accredited by the Joint Commission must follow the requirements of the Joint Commission's National Patient Safety Goal 15.01.01: Reduce the Risk for Suicide (Joint Commission, 2019). At the unit level, nurse managers determine the staffing needs and how best to implement the hospital policies that align with Joint Commission requirements. Although hospitals and unit managers have leeway in what suicide prevention activities nurses engage in beyond what is required by the Joint Commission, it may be difficult to allocate nursing resources beyond addressing immediate patient safety needs without compromising other care. Suggestions offered by nurses in this study may be more or less administratively feasible across units and hospitals.

There are added challenges for acute and intensive care nursing, given these settings have been on the front lines of the COVID-19 pandemic. On the one hand, the pandemic may have increased stress and the risk of suicide among the patient population traditionally served at the hospital (Eden et al., 2022), making the need for suicide prevention services that much more important. On the other hand, the stress of the pandemic on the healthcare system and nursing workloads may reduce the capacity for adding suicide prevention activities that can reach the full population of at-risk patients. Turnover is known to be high among nurses, but this was worsened during the pandemic in part due to high rates of nurses leaving staff positions at hospitals to serve as travel nurses for higher pay to cover staffing needs at other hospitals (Yang & Mason, 2022). Given that travel nurses are temporary hires with inherent turnover, this phenomenon underscores the need to develop brief interventions as well as efficient and effective trainings that are resistant to the impact of staff turnover. Additionally, given the challenges facing acute and intensive care, efforts to ensure follow-up at post-discharge medical and surgical visits and implementing suicide prevention activities in these settings may be particularly important.

4.2 | Limitations

The data from these studies reflect the perspectives and opinions of nurses who expressed interest in the topic of suicide prevention and may not reflect those of the larger population of nurses in acute and intensive care at this hospital or other hospitals. Additionally, the Study 2 focus groups occurred during a pandemic, which may have influenced nurses' perspectives reported in those groups. Future survey research based on the findings from this study could examine the degree to which other nurses both at the study hospitals and other healthcare settings in the U.S. perceive the same barriers, believe the strategies offered could be feasible, and perceive the same suicide prevention activities as within their role. Identifying barriers and facilitators from the perspective of the bedside nurse is important for guiding development of successful interventions. Knowing how the larger community of frontline nurses feels about expanding their role in suicide prevention could help inform administrative decisions about how best to allocate personnel and the types of trainings that would be needed.

Since our sample of nurses primarily identified as female and White or Caucasian, our results may not generalize to nurses who identify as men, non-binary, or transgender or nurses who identify as multiracial, Hispanic or Latino, or Black, Indigenous, or people of colour (BIPOC). Percentages or female and White or Caucasian-identified nurses we observed are, however, similar to those observed nationally in the 2020 National Nursing Workforce Survey in which men account for 9% of the registered nurse workforce and 81% identify as White or Caucasian (Smiley et al., 2021). Our findings also may be unique to public safety net hospitals and trauma centers which likely serve patient populations at greater risk of suicide than other inpatient medical settings, which could influence the perceived need for additional suicide prevention activities. Although some of the barriers, such as challenges in finding uninterrupted time to engage patients in a brief intervention, may be applicable to a number of healthcare settings, the strategies suggested in this study may be unique to the acute and intensive care nursing context.

We started data collection and designed Study 1 focus groups prior to the COVID-19 pandemic, completing all activities in person. For Study 2 focus groups, all research activities were conducted remotely using the same procedures to maintain standardization of group process (e.g., introductions, orientation to the focus groups, inviting participants to share perspectives); however, we do not know if this impacted nurse participation or the group dynamics during the focus groups. We did not observe any logistical problems with conducting remote research with hospital nurses; rather, the groups may have been more accessible for nurses since nurses could do the focus group from any location with internet or cellular phone access. Additionally, for researchers, using videoconferencing technology resulted in better quality recordings that were more easily transcribed.

5 | CONCLUSION

Acute and intensive care nurses play a key role in the public health approach to suicide prevention. Understanding their perspectives is critical for guiding development and deployment of effective brief interventions. Our findings suggest suicide prevention training for nurses in this context is highly relevant and there may be opportunities to expand the nursing role beyond screening patients and ensuring immediate safety in the environment. Barriers to engaging patients in suicide prevention interventions in the hospital setting must be overcome; in particular, nurses and nursing managers will need to find ways to ensure nurses have adequate uninterrupted time to engage in discussion with patients about the sensitive topic of suicide. Further, training must be delivered in a flexible and accessible format to meet the needs of busy nurses, target the skills most likely to be utilized in the hospital context, and be interactive, ideally with opportunities for skills practice with feedback.

AUTHOR CONTRIBUTIONS

DD, AP, SD, EB, KC: Made substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data. DD, AP, JW, CW, SD, EB, PA, KC: Involved in drafting the manuscript or revising it critically for important intellectual content. DD, AP, JW, CW, SD, EB, PA, KC: Given final approval of the version to be published. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content. DD, AP, JW, CW, SD, EB, PA, KC: Agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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CONFLICT OF INTEREST STATEMENT

No conflict of interest has been declared by the author(s).

PEER REVIEW

The peer review history for this article is available at https://www.webofscience.com/api/gateway/wos/peer-review/10.1111/jan.15650.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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