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Should Nurses Screen Pediatric Medical Inpatients for Suicide Risk? Perspectives from Nurses and Their Patients

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Introduction

Suicide is currently the second leading cause of death among youth; the age-adjusted suicide rate for youth increased by a margin of 30% from 2000-2016.[1] Among this population, youth with medical illnesses are at elevated risk for suicide.[2] Screening for suicide risk—especially among high-risk populations—has been identified as a critical prevention strategy and a necessary step in reducing the growing suicide rate.[3] In this vein, medical settings have been designated as key venues to screen for suicide risk; accordingly, the Joint Commission has put forth recommendations that health care systems consider evaluating suicide risk in all patients across all settings.[4]

The National Strategy for Suicide Prevention recognizes Zero Suicide as a promising initiative to "transform health care systems to significantly reduce suicide."[5] The Zero Suicide model calls for suicide prevention to be a core component of healthcare services, recommending universal suicide risk screening for all patients in contact with the health system.[6] Despite research showing that patients in nonpsychiatric settings (eg, inpatient medical and emergency departments) overwhelmingly support screening for suicide risk by nurses in these settings,[7,8] there are a number of challenges to effective implementation of universal screening,[9] including the need for a trained workforce,

institutional capacity to manage positive screens, and attitudinal barriers related to asking about suicide among healthcare providers.[10]

Nurses have been identified as a key workforce in suicide prevention due to their significant amount of contact with patients.[11] The majority of nursing-related research about suicide prevention has been conducted with nurses who treat adult populations[12] and has examined nurses' perceptions of suicidal patients[13] and individual beliefs about suicide,[14] rather than their perspectives about risk screening, assessment, and management. The few studies that have examined nurses' attitudes about suicide risk screening, assessment, and management in adults have shown have shown that apathy,[15] skepticism about suicide preventability,[16] and lack of experience[17] are factors that consistently interfere with nurses' abilities to screen, assess, or effectively manage suicide risk. Very few studies have examined perspectives of nurses treating pediatric patients, with most focusing on perceptions of suicidal patients as opposed to nurses' perspectives about whether they should engage in or are comfortable with suicide risk screening, assessment, or management, or barriers to effective screening.[18-20]

Research has documented gaps in nursing education related to suicide risk screening, assessment, and management,[21,22] suggesting that practicing nurses may have limited knowledge of suicide risk factors, and

that they may believe that suicide risk screening may fall outside the purview of their professional responsibilities in nonpsychiatric medical settings. Given the elevated suicide risk for medically ill pediatric patients, it is critical to understand nurses' beliefs about suicide risk screening in general inpatient medical settings and any perceived barriers to engaging in suicide risk screening with pediatric patients specifically. Conducted in tandem with a larger instrument validation study, this study describes both patients' and nurses' opinions about whether nurses should screen for suicide risk in pediatric inpatient medical settings. It also examines nurses' comfort with suicide risk screening practices and perceived barriers to suicide risk screening in pediatric inpatient medical settings. Finally, this research also describes nurses' awareness of pediatric medical inpatients' experiences with being asked about suicide and the degree to which these perceptions matched the experiences of the patients themselves.

Methods

As part of a larger instrument validation study of the Ask Suicide Screening Questions (ASQ)[23], a 4-item self-report measure developed to rapidly detect suicide risk with pediatric medical inpatients ages 10-21, patients were asked about their experiences with suicide risk screening and opinions about whether nurses should screen for suicide. Data describing pediatric opinions on suicide risk screening and the validity of

the instrument itself are reported elsewhere (see [8,24]). All nurses employed on the three medical/surgical inpatient units from which patients were recruited were invited to complete an exit survey about their perspectives on suicide risk screening and patients' experiences.

Participant Recruitment. A total of 200 pediatric patients between the ages of 10 and 21 who were hospitalized on one of three inpatient medical units at a large urban pediatric tertiary care hospital for a minimum of 12 hours participated in the instrument validation study. Pediatric patients were excluded from participating if one or more the following criteria were met:(1) acute medical symptoms that precluded participation; (2) presence of severe developmental delays, cognitive impairment, or communication disorder such that the patient was not able to comprehend questions or communicate their answers; (3) their primary reason for hospitalization was a psychiatric disorder and they were "boarding" while awaiting an inpatient psychiatric bed; and (4) parent/guardian or consenting participant was non-English speaking. Patient participants received a $10 gift card in exchange for their time and participation.

Upon completion of patient participant recruitment, all nurses employed on the three pediatric inpatient medical units (N=134) from which pediatric study participants were recruited were invited to participate in a brief electronic survey about their perspectives on suicide risk

screening. Nurse participants were recruited via e-mail and through a series of presentations about the study at their in-service staff meetings.

Procedures. Written informed consent was obtained from patient participants age 18 years and over and from parents/legal guardians of participants ages 17 and younger. Written assent was obtained from all participants ages 17 and younger. All interviewers were Masters-level licensed clinical social workers. After obtaining informed consent/assent, parents/guardians of the patient were asked to leave the patient's treatment room prior to administration of the interview. Patient participants were notified that if the interviewers had any safety concerns, then their parent/guardian and medical team would be notified and they would receive appropriate psychiatric follow-up care facilitated by the Psychiatric Consultation Liaison Team, comprised primarily of social workers and psychologists with extensive mental health training.

All nurses employed on the three pediatric inpatient medical units from which pediatric study participants were recruited were invited to participate in a brief electronic survey inquiring about their opinions on whether nurses should screen for suicide risk, their current levels of comfort with suicide risk screening, perceptions of their patients' experiences with suicide risk screening, and any perceived barriers to screening for suicide risk on pediatric medical inpatient units. The

electronic survey was distributed five times over a 1-month period and took less than 10 minutes to complete. Institutional review boards at both the National Institute of Mental Health and the host institution approved the validation study; the survey examining nursing experiences was reviewed by the host institution's Institutional Review Board and approved as a quality improvement initiative.

Measures. Pediatric participants were administered a questionnaire inquiring about demographics, previous healthcare utilization, history of psychiatric/medical illnesses, and a battery of screening measures for suicide risk and depression; these data are reported elsewhere.[8,24] Participants were also asked if they had previously been screened for suicide and their opinions about whether nurses should screen for suicide risk using the following three questions: "Have you ever been asked about suicide before? By whom? Do you think nurses should screen patients for suicide risk?" All pediatric measures have been used extensively by the team in previous research.[8,24]

Nurses' perceptions about whether nurses should screen for suicide risk and if their patients had ever been asked about suicide previously were assessed by a similar set of questions: "Do you think nurses should screen patients for suicide risk? Do you think your patients have ever been asked about suicide? By whom?"

Nurses' general comfort with suicide risk screening was assessed with a single question scored on a 5-point Likert scale: "How comfortable are you with screening patients for suicide risk?" Response categories ranged from 1=very uncomfortable to 5=very comfortable.

Nurses' perceived barriers to screening for suicide risk were assessed with eight items. For the first seven items, participants were asked to indicate "yes" or "no" to whether the following factors function as barriers to screening for suicide risk in the inpatient medical setting: time, parent in room, not within scope of nursing role, additional workload burden, personal level of comfort, fear of patient discomfort, and fear of parent discomfort. The eighth, open-response item was designated as "other barriers" and provided an opportunity for participants to specify additional barriers that may not have been captured in previous items. A total score was computed by summing responses of the eight items. All nursing questions were generated for the purposes of the current study and established through discussions with staff and consensus of the research team.

Data Analyses. Descriptive statistics are reported as proportions and means with standard deviations when applicable. Chi-square analyses were used to examine differences in patient demographic characteristics by opinion type, differences in patients' and nurses'

opinions about whether nurses should screen for suicide risk, and to compare nurses' perceptions of whether their patient population had been previously asked about suicide with patient self-reports of suicide risk screening. Pearson's correlations were used to examine associations between nurses' years of work experience at the host institution, comfort with screening for suicide risk, opinions about whether nurses should screen for suicide risk, and both individual and cumulative number of perceived barriers to screening. All data were analyzed in SPSS version 25.

Results

Over 80% (200 of 248) of pediatric medical inpatients agreed to participate in the larger validation study. All but 4 participants (n = 196, 98%) definitively answered the question about whether nurses should screen for suicide risk (ie, yes or no). Patient demographic data, opinions, and previous experiences with suicide risk screening are located in Table 1. Chi-square analyses showed no significant differences among patients across the two opinion types (in favor/against screening).

Table 1. Patient Demographics by Opinion on Screening.

	Overall (N=200)		In Favor of Screening (N=162; 81.0%)		Opposed to Screening (N=34; 17.0%)	
Mean Age (y, SD)	15.5	2.4	15.59	2.7	15.15	3.2
	N	*%*	*N*	*%*	*N*	*%*
Race/ethnicity						
White	133	66.5	109	67.3	24	70.6
Hispanic/Latino	26	13.0	21	13.0	5	14.7
Black	17	8.5	15	9.2	2	5.9
Mixed	12	6.0	10	6.2	2	5.9
Asian/Pacific Islander	3	1.5	2	1.2	1	2.9
Other/unknown	10	5.0	5	3.1	0	0.0
Sex						
Female	118	59.0	102	63.0	13	38.2
Male	82	41.0	60	27.0	21	61.8
Insurance status						
Private	116	58.0	95	58.6	21	61.8
Public	61	30.5	51	31.5	10	29.4
Both public and private	8	4.0	6	3.7	2	5.9
Uninsured	1	0.5	1	0.6	0	0.0
Unknown	16	8.0	9	5.6	1	2.9
Chronic illness						
Yes	152	76.0	125	77.2	23	67.6
No	48	24.0	37	22.8	11	32.4
History of psychiatric treatment						
Yes	121	60.5	106	65.4	15	44.1
No	74	37.0	55	34.0	19	55.9
Unknown	5	2.5	1	0.6	0	0.0
Ever asked in any setting?						
Yes	75	37.5	61	37.7	14	41.2
No	125	62.5	101	62.3	20	58.8

Over 75% of patients carried a diagnosis of chronic illness, and approximately 60% had received mental health treatment at some point in their lives. A total of 64 nurses completed the electronic survey, yielding a 48.7% response rate. On average, nurses had been employed at the host institution for 11.2 (SD 1.6) years. Nurse demographic data, opinions, and perceptions of patients' experiences with suicide risk screening are located in Table 2.

Table 2. Nurses' Characteristics and Knowledge of Patients' Experiences with Suicide Risk Screening (N=64)

	Overall Sample (N=64; 100.0%)		In Favor of Screening (N=54; 84.4%)		Opposed to Screening (N=10; 15.6%)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Years employed at institution	11.2	1.6	11.9	10.0	7.5	5.0
	N	*%*	*N*	*%*	*N*	*%*
Were any of your patients involved in the study?						
Yes	24	37.5	8	14.8	3	30.0
No	10	15.6	21	38.9	2	20.0
Don't know	30	46.9	25	46.3	5	50.0
Have any of your patients previously been screened for suicide?						
Yes	41	64.1	33	61.1	8	80.0
No	20	31.3	18	33.3	2	20.0
Don't know	3	4.7	3	5.6	0	0.0

Should nurses screen for suicide? Eighty-one percent (162/200) of patients reported opinions in favor of nurses screening for suicide risk in the inpatient medical setting. Similarly, the majority of nurses surveyed (84.4%) believed that nurses should screen pediatric medical inpatients for suicide. Chi-square analyses revealed no significant differences in

patient and nurse opinions about whether nurses should screen for suicide risk.

Have pediatric medical inpatients been screened for suicide previously? The majority (62.5%; 125/200) of patients interviewed reported that they had never been asked questions about suicide in any setting (eg, health, school, etc.) previously. Sixty-seven percent of nurses (n=41) indicated that they believed their patients had been screened for suicide risk prior to arriving in their care. Chi-square analyses showed significant discordance between nurses' beliefs that this same sample of patients had been previously screened for suicide risk and their patients' self-reported experiences with being screened ($p<.001$; $df=1$, $f=19.8$). Almost half (46.9%) of nurses reported that they did not know if their patients had participated in the study, regardless of screening results.

Who screens pediatric medical inpatients for suicide, according to patients? Of the 75 patients (37.5%) who reported that they had been asked about suicide risk previously, 30.7% (n=23) reported that they had been asked by a general healthcare professional. Similarly, 30.7% (n=23) reported that they had been asked by a mental health professional, and 26.7% (n=20) indicated had been asked by school personnel. Six participants (8.0%) reported that they had been asked by multiple

providers. Only 5 participants (6.7%) reported that they had been previously asked by a nurse.

Who screens pediatric medical inpatients for suicide, according to nurses? Of the 64.1% (n=41) of nurses who believed their patients had been previously screened for suicide risk, the majority (51.21%; n=21) of nurses indicated that they believed a medical provider had previously screened their patient; the most frequently reported was a primary care physician (22.0%, n=9), followed by another hospital-based medical provider (19.5%; n=8) or a mental health clinician (12.2%; n= 5). Approximately 30% (n=12) of nurses did not identify a specific provider or setting in which they believed their patient had been screened for suicide risk. Three respondents (7.3%) indicated that they believed their patients had been screened by nurses.

Nurses' general level of comfort with suicide risk screening. As shown in Table 3, only 50.0% (n=32) of nurses indicated that they were at least fairly comfortable screening for suicide risk, with 34.4% (n=22) reporting that they were fairly or very uncomfortable with the practice.

Table 3. Nurses' Comfort with Suicide Risk Screening by Opinion (N=64)

	Overall Sample (N=64; 100.0%)		In Favor of Screening (N=54; 84.4%)		Opposed to Screening (N=10; 15.6%)	
Comfort with suicide risk screening						
Very uncomfortable	4	6.3	1	1.9	3	30.0
Fairly uncomfortable	18	28.1	13	24.1	5	50.0

Neutral	19	15.6	8	14.8	2	20.0
Fairly comfortable	17	22.6	17	31.5	0	0.0
Very comfortable	15	23.4	15	27.8	0	0.0

Barriers to suicide risk screening identified by nurses. On average, nurses identified 2.7(SD 1.2) barriers to screening from suicide risk [range 0 to 5]. As shown in Table 4, the majority of nurses identified parental presence in the room (73.4%), fear of patient discomfort (56.3%), and fear of parental discomfort (51.6%) as barriers to suicide risk screening. Almost half (45.3%) indicated that their personal discomfort may function as a barrier to engaging in the practice. While only 3 nurses (4.7%) considered suicide risk screening to be outside of their professional scope of practice, no nurses in this sample identified suicide risk screening as an additional workload burden.

Table 4. Nurses' Perceived Barriers to Suicide Risk Screening (N=64)

	Overall Sample (N=64; 100.0%)		In Favor of Screening (N=54; 84.4%)		Opposed to Screening (N=10; 15.6%)	
	N	*%*	*N*	*%*	*N*	*%*
Barriers to screening?						
Time	16	25.0	15	27.8	1	10
Scope of nursing role	3	4.7	2	3.7	1	10
Parent in room	47	73.4	39	72.2	8	80
Additional burden	0	0.0	0	0.0	0	0.0
Personal level of comfort	29	45.3	21	38.9	8	80
Fear of patient discomfort	36	56.3	28	51.9	8	80
Fear of parent discomfort	33	51.6	26	48.1	7	70
Other	6	9.4	6	11.1	0	0.0

Associations among nurses' opinions, comfort level, and barriers to suicide risk screening. Associations among nurses' opinions and barriers

to suicide risk screening are shown in Table 5. General level of comfort was significantly and positively associated with the number of years a respondent had been employed at the host institution (r =.259; p<.05) and pro-screening opinions (r =.482; p<.01). General level of comfort was inversely and significantly associated with two specific barriers [presence of personal discomfort (r =-.431, p<.01), fear of parental discomfort (r =-.265, p<.05)] as well as the total number of barriers (r =-.391, p<.05).

Pro-screening opinions were inversely correlated with personal discomfort only (r = -.300, p<.05). The association between screening opinions and total number of barriers to screening did not reach significance; however, the total number of barriers to screening was significantly associated with fear of parental discomfort (r =.669; p<.01), fear of patient discomfort (r =.650, p<.01), presence of personal discomfort (r =.638; p<.01), and parental presence in the room (r =.475; p<.01).

Pearson's correlations revealed a number of interrelated individual barriers. Specifically, personal discomfort was significantly associated with fears of both patient (r =.297, p<.05) and parental discomfort (r =.380, p<.05). Fears of parent and patient discomfort were also significantly correlated with one another r =.469; p<.01). Relationships between time or scope of practice with any other individual barrier did not reach significance.

Table 5. Pearson's Correlations of Nurses' Years of Experience, Opinions, Comfort, and Perceived Barriers to Screening.

	M	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
1. Years at institution	11.2	1.6										
2. General level of comfort	3.3	1.3	.259*									
3. Total number of barriers	2.7	1.3	-.149	-.391**								
	N	*%*										
4. Barrier: time	16	25.0	.120	.050	.297							
5. Barrier: scope of role	3	4.7	-.083	-.057	.002	-.128						
6. Barrier: parent In room	47	73.4	-.133	-.095	.475**	.184	-.034					
7. Barrier: presence of personal discomfort	29	45.3	-.119	-.431**	.638**	.054	-.053	.050				
8. Barrier: fear of patient discomfort	36	56.3	-.151	-.218	.650**	-.073	-.102	.183	.297*			
9. Barrier: fear of parent discomfort	33	51.6	-.068	-.265*	.669**	-.090	-.081	.054	.380**	.469**		
10. Barrier: other	6	9.4	.011	-.041	-.123	-.186	-.071	-.171	-.185	-.257*	-.117	
11. Pro-screening opinion	54	84.4	.169	.482**	-.217	.149	-.108	-.064	-.300*	-.206	-.159	.138

Note: M, SD and N are used to represent means, standard deviations, and number of participants, respectively. *indicates p<.05. ** indicates p<.01.

Discussion

The majority of both pediatric inpatients and nurses supported universal suicide risk screening on medical inpatient units by nurses, with only 4.7% (n=3) nurses indicating that screening fell outside the scope of the nursing role. Despite the general consensus between patients and nurses that nurses should screen patients for suicide risk, only 4.7% (n=3) of nurses indicated that they believed their patients had been screened by nursing staff; similarly, only 7.4% (n=5) of patients who had been previously screened for suicide risk indicated that they had been asked about suicide by a nurse specifically. While it is possible that some of the patients who did not specify the identity of the provider who asked them about suicide may in fact have been screened by nursing staff, the proportion of patients who did not identify a provider type was relatively small (10.3%; n=7). Taken together, these findings indicate that nurses are not systematically screening for suicide risk in medical settings, even though both patients and nurses believe that nurses should be doing so.

In addition, findings also revealed misperceptions among nurses about whether their patients had been screened for suicide risk and where screening occurred. Specifically, nearly two-thirds of nurses participating in this study believed that their patients had been screened for suicide previously, yet the majority of patient participants (62.0%) indicated that

they had never been asked about suicide prior to participating in the instrument validation study. Of the 64% of nurses (n=41) who believed that their patients had been asked about suicide risk on a prior occasion, over half believed that their patients had been screened in a medical setting; however, only 33.2% (n=23) of patients who reported that they had been asked about suicide indicated that they had been screened in medical settings. This finding is concerning in light of growing suicide rates in youth[1] and compounded by pronounced risk in youth with chronic medical illnesses.[25-28] While Joint Commission Safety Goal 15.01.01 requires suicide risk screening among behavioral health patients only,[29] a 2016 Sentinel Event Alert #56 recommends that healthcare organizations "screen all patients for suicide ideation, using a brief, standardized, evidence-based screening tool."[4] Given that underdetection of suicide risk is considered a leading cause of these sentinel events[30] and undoubtedly contributes to the rising suicide rate across all populations, it may behoove the healthcare workforce to, at a minimum, expand early detection efforts to engage nurses in efforts to screen patients who may not be identified as "behavioral health patients" yet carry elevated risk, such as youth with chronic medical illnesses.

These data also revealed a number of factors that may interfere with nurses' abilities to screen for suicide risk. All but one nurse in the

sample reported at least one perceived barrier to screening for suicide risk. Overall, only 4.7% (n=3) perceived suicide risk screening as outside the scope of their role and no nurses identified screening as an additional workload burden. Fifty percent of nurses reported that they were at least "fairly comfortable" with screening for suicide risk; nearly half (45.3%) indicated that their own level of discomfort with screening could interfere with the practice. Furthermore, over half of nurses reported that fear of causing discomfort, either in their patients (56.3%) or in parents or caregivers (51.6%), functioned as a barrier to suicide risk screening. While this study did not assess nurses' beliefs about whether their patients wished to be screened for suicide explicitly, findings from this study are consistent with others that indicate that pediatric patients and their parents support the practice across both inpatient and emergency medical settings.[7,8,31] Significant correlations between nurses' own self-reported levels of comfort and fears of causing discomfort in both patients and parents/caregivers indicate that nurses may in fact be projecting their own uneasiness onto the patients and families they treat. Given that pro-screening opinions were significantly associated with higher levels of general comfort (r= .482, p<.01) and inversely correlated with personal discomfort (r= -.300, p<.05), addressing nurses' level of comfort may be a

key mechanism through which nurses' willingness to screen for suicide risk may be enhanced.

As such, implementation of suicide risk screening initiatives that involve nurses—regardless of whether such initiatives are universal or targeted—must be accompanied by training that increases nurses' comfort with and competency in the practice. We suggest that core components of trainings designed to increase provider screening behaviors should include educating providers about the magnitude of the problem, sharing information about patient and family preferences, dispelling myths about iatrogenic risk, and employing in vivo role plays/behavioral rehearsals as training strategies. Specifically, allowing providers an opportunity to practice navigating the barrier of parental presence in the room may be particularly useful, as parental presence in the room was the most frequently reported perceived barrier in this sample, with nearly three-fourths of nurses in this sample reporting this barrier. The National Institute of Mental Health (NIMH) recommends that providers who screen for suicide risk should not *ask* if it is okay for a parent/guardian to leave the room, but rather *tell* the parent to step away for a few moments, making it standard practice for parents to step out.[30]

Effective implementation of suicide risk screening also requires support of senior leadership, tiered-screening responses, adequate

resources for management of positive screens, and specified clinical workflows.[30,32] Given that discomfort about whether or not to screen for suicide risk may be driven by the lack of confidence or clarity around how to proceed when a patient screens positive for suicide risk, clearly defined tiered-screening responses are of critical importance. Brahmbhatt and colleagues[30] have developed a standardized template for clinical pathway generation in pediatric hospital settings that utilizes a tiered-screening response. Modeled after existing physical illness care pathways that already exist across pediatric health care settings to ensure smooth integration into the standard of care, the tiered-screening response is designed to be administered by nurses during the initial nursing assessment that occurs upon admission to the unit; it is comprised of an initial ASQ screen by a nurse or medical provider, followed by a Brief Suicide Safety Assessment (BSSA) conducted by a trained mental health professional in the event that a patient screens positive. Utilizing the BSSA as a guide, the clinician then determines the need for a more intensive full suicide safety assessment. This team has also developed scripts that can be used to introduce the screening to patients and parent/guardians, as well as standardized sample language to use when a patient screens positive (available at https://www.nimh.nih.gov/asq).While this study was not designed to

evaluate a formal implementation of suicide risk screening practices on inpatient medical floors, future research should examine the utility of training and technical assistance packages designed to promote efficient uptake, adoption, and sustainment of suicide risk screening practices by nurses in these settings.

Findings from this study showed that almost half (46.9%) of nurses indicated that they did not know if their patients had participated in the validation study. Per study protocol, all treating physicians were alerted to positive screens; however, at the time of the study, there was no designated location in the electronic health record (EHR) for documentation that a screen had occurred, regardless of results. As a result, positive screens may have been buried in the narrative of a case record note, and negative screens may not have been entered into the EHR at all. Comprehensive EHR systems have been identified within the Zero Suicide framework as a viable mechanism for ensuring that patients at risk are continuously and deliberately monitored.[6] As such, strategic utilization of existing EHR functions, such as automated alert notifications and patient flags, could improve interprofessional communication and capacity for coordinating team-based care.

There are several possible limitations to this study. First, participants in this study were hospitalized youth from three

inpatient medical-surgical units in an urban teaching hospital and the nurses who treated them; in conjunction with the relatively low response rate and small sample size of the nursing survey, these limitations indicate that findings may not be generalizable to other settings and populations. This study only included patients who spoke English; future studies would benefit from including non-English-speaking patients. In addition, each patient subject was told that if the interviewer had concerns about their safety, they would receive further mental health evaluation that included disclosing information to parents, which may have also impacted some of the responses. In addition to sampling and interview protocol limitations, measurement limitations are also evident. The nursing survey was created for the purpose of the current study and thus is not a validated tool. Similarly, the open-ended structure of the question about who had asked patients about suicide did not require patients or nurses to select a category; it is possible that some respondents who did not specify a provider type may have been asked by nurses. Finally, as related to data analysis involving the patient and nurse samples, it was not feasible to individually match nurse respondents to specific patients whom they treated, as nurses treat multiple patients per shift and we did not ask them to complete an individual survey for each patient for whom they cared;

thus, it is possible that some nurses may have accurately perceived that individual patients had been screened for suicide previously.

Conclusion

Universal suicide risk screening appears acceptable, given that over 80% of pediatric medical inpatients and the nurses who treat them are in favor of nurses screening. However, most pediatric medical inpatients reported that they had never been asked about suicide in any setting; of the 37.5% who had been asked, very few indicated that they had been asked by nurses specifically. Similarly, the majority of nurses in this sample believed that their patients had been screened for suicide risk previously—but not by nurses. Taken together, these findings indicate a substantial incongruence between what both patients and nurses believe should be occurring on medical inpatient units and the care that is actually being delivered. Moreover, the marked discrepancy between patient-reported experiences of being asked about suicide and the perceptions of nurses who treat them indicates a need for increased clarity in health systems about which providers screen patients for suicide risk and when/how often patients should be screened. Further, clear protocols that provide guidelines for positive screen management, documentation of screening results regardless of outcome, and communication protocols

among health care teams may improve patient care and improve nurses' comfort with suicide risk screening.

Health care systems that choose to implement universal suicide screening with pediatric patients should utilize multifaceted approaches. Specifically, these approaches should ensure that the existing standard of care is such that parents/caregivers are expected to leave their patient's room for a portion of the nursing assessment and clear clinical pathways for positive screen management are identified. In addition, health systems should avail themselves of full EHR functionality with respect to tracking screening results and monitoring high-risk patients. Finally, offering ongoing trainings that explicitly target known barriers to suicide risk screening, including provider attitudes about and comfort with the practice, may also improve workforce capacity to engage in effective suicide risk screening and other early detection efforts.

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