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Nurse perceptions of caring for pediatric patients with behavioral health needs on non-psychiatric units during the COVID-19 pandemic

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ABSTRACT

Purpose: The study examined nurses' perceptions of barriers and needs when caring for pediatric patients with behavioral health needs in inpatient non-psychiatric units during the pandemic.
Design and methods: A quantitative descriptive comparative design was used. Members of Society of Pediatric Nurses and National Pediatric Nurse Scientist Collaborative were recruited. The survey included questions about perceived barriers and needs in caring for children with behavioral health needs in their units.
Results: A total of 335 nurses across the United States participated. Descriptive statistics, chi-square, and Kruskal-Wallis evaluated responses. Nurses in Southeast/Southwest regions were less fearful when caring for pediatric patients with behavioral health needs ($p = .03$), more often knew what to do ($p = .01$), and were supported by a behavioral health team with regular rounding ($p = .035$). Nurses in adult/pediatric hospitals were less likely to have adequate education to feel competent ($p = .012$). Nurses in the emergency department were less fearful ($p = .02$), more confident ($p = .025$), and more competent ($p = .006$). Nurses with up to two years of experience were likelier to feel assignments reflected the patient workload ($p = .001$) and more familiar with trauma-informed care protocols ($p = .013$).
Conclusions: This study illustrated significant variations in competence, readiness, and attitudes among nurses across different regions, hospital types, departments, and experience levels when caring for pediatric patients with behavioral health needs.
Practice implications: Results from this study could lead to the development of clinical practice guidelines, protocols, or policies to guide practice.

Introduction

In the United States, an increasing number of children and youth have been impacted by mental health disorders for decades (Sorter et al., 2023). Over the last 15 years, pediatric hospitalizations for behavioral health needs have surged by >50%, with total healthcare expenditures for this population estimated to be about $11.6 billion (Edgcomb et al., 2020). Economic challenges, including a lack of funding, have led to steadily declining psychiatric inpatient beds across the United States (American Psychiatric Association, 2022). Traditionally, pediatric patients needing immediate mental health care services would be admitted to specialized psychiatric facilities or hospitals. In these settings, trained and qualified staff would deliver tailored mental healthcare services. However, the number of children and adolescents requiring mental health services has continued to increase beyond treatment capacities (American Psychiatric Association, 2022). This crisis has led to children and adolescents often being held in the emergency department (ED) or non-psychiatric units while awaiting transfer, a process known as "boarding" (American College of Emergency Physicians, 2018; American Psychiatric Association, 2022). EDs and inpatient medical units are sometimes transformed into short-term mental health crisis intervention areas where patients, referred to as "boarders," may stay a week or longer and receive little to no psychiatric treatment (American Psychiatric Association, 2022).

In response to the COVID-19 pandemic in early 2020, various protective measures were implemented across the United States, such as school and childcare center closures and social distancing protocols (Patrick et al., 2020). Unfortunately, these measures resulted in isolation and worsening mental health symptoms for children due to a lack of social interaction and support (Lee, 2020). During this time, pediatric patients seeking care in the ED for behavioral health needs were more likely to have required an inpatient admission and had more extended hospital stays than patients seeking emergency care before the pandemic (Krass et al., 2021). Boarding of pediatric patients seeking behavioral health services increased during the pandemic, as psychiatric

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service programs for youths were not prepared to support the levels of acuity and demand that emerged during this time (Herrera et al., 2023). In a recent survey of 88 hospitals to evaluate pediatric patient boarding practices since the onset of the pandemic, 98.9% ($n = 87$) boarded children awaiting inpatient psychiatric care, with a median of four children boarding daily for 48 h (Leyenaar et al., 2021). The American Academy of Pediatrics, The American Academy of Child and Adolescent Psychiatry, and the American Psychiatric Association have all acknowledged the adverse effects that the pandemic has had on children's mental health (American Psychiatric Association, 2020). In October 2021, the American Academy of Pediatrics, the American Academy of Child and Adolescent Psychiatry, and the Children's Hospital Association made a joint declaration of a national state of emergency in child and adolescent mental health, requesting immediate intervention by policymakers (American Academy of Pediatrics, 2021).

Limited research exists regarding nurses' experiences while caring for children with behavioral health needs on non-psychiatric units. Even before the pandemic-related mental health crisis, nurses reported experiencing barriers that hindered their ability to provide high-quality holistic care to children with behavioral health diagnoses. A lack of skills, knowledge, and resources to care for children with mental health disorders prevented them from feeling adequately prepared to provide quality care (Holliday et al., 2020; Manning et al., 2017; Vallières-Noël et al., 2016). Nurses have viewed patient care as fragmented due to poor communication with the behavioral health providers when caring for these vulnerable patients on medical units (Vallières-Noël et al., 2016). This led to a "powerlessness loop" for nurses, as they felt helpless when did not how to provide supportive mental healthcare for their patients (Dahnke & Mulkey, 2021; Vallières-Noël et al., 2016). The stress of providing nursing care to these patients resulted in feelings of frustration, helplessness, injustice, and moral distress (Dahnke & Mulkey, 2021; Vallières-Noël et al., 2016).

The influence of the COVID-19-related pediatric mental health crisis on nurses' experiences when caring for this patient population has yet to be investigated. Therefore, the aim of this study was to evaluate nurses' perceptions of barriers and needs when caring for pediatric patients with behavioral health needs in inpatient non-psychiatric units during the COVID-19 pandemic.

Methods

Study design

The study used a quantitative exploratory, comparative design through the administration of an online electronic REDCap survey to pediatric nurses who have cared for children with behavioral health needs in inpatient non-psychiatric units during the COVID-19 pandemic. This study was proposed and designed by a task force of pediatric nursing content experts from the Society of Pediatric Nurses (SPN).

Ethical considerations

Ethical approval for this study was obtained from the Institutional Review Board of a large urban pediatric medical center in April 2022. A waiver for documentation of consent was approved for this study. The online survey was distributed to potential participants with an introduction explaining the study purpose, the voluntary nature of participating, and that consent was inferred if they chose to complete the survey. There was no personally identifiable information collected for this study.

Data collection

Participants were recruited from July – December 2022. With permission from the SPN Clinical Practice and Research Committee, the electronic survey link was distributed to over 3500 nurses via the SPN member list. In addition, the survey link was distributed to 161 nurse scientists across the country via the National Pediatric Nurse Scientist Collaborative (NPNSC). NPNSC members were encouraged to share the link with frontline nurses at their individual institutions.

Sample

Nurses were eligible to participate in this study if they met all of the following inclusion criteria:

- Frontline clinical registered and vocational nurses who directly provided care to inpatient pediatric patients with behavioral health needs in a non-psychiatric unit (including ED) during the COVID-19 pandemic
- 18 years and older
- Able to read and comprehend the English language

Nurses were excluded from this study if they met any of the following exclusion criteria:

- Frontline clinical registered nurse and vocational nurse who was primarily employed in an inpatient pediatric psychiatric unit
- Frontline clinical registered nurse and vocational nurse who was primarily employed in pediatric primary care, outpatient, or community setting
- Frontline clinical registered and vocational nurses who never directly provided care to inpatient pediatric patients with behavioral health needs in non-psychiatric unit
- Younger than 18 years old
- Unable to read and comprehend the English language

Instrument

The survey titled *Nurse Perceptions of Caring for Pediatric Patients with Behavioral Health Needs on Inpatient Non-Psychiatric Units (Acute Care Units/ED)* was created by a task force of SPN experts in the fields of pediatric behavioral health and nursing research. To ensure tool validity, the task force conducted a thorough literature review, concept mapping, and multiple iterations of survey items based on cognitive interviewing. All survey items were created based on this analysis of the literature. The survey consisted of eight demographic questions and 28 Likert-style questions related to nurse perceptions when caring for pediatric patients with behavioral health needs on non-psychiatric units. The remaining survey items were grouped into two subscales: *Perceived Barriers* and *Perceived Needs*.

Data analysis

Quantitative data were analyzed using IBM SPSS Statistics (version 25). A critical alpha level of ≤0.05 was used to show statistical significance. All survey responses were evaluated using descriptive statistics (frequencies/percentages, medians, and ranges). All demographic data were analyzed with survey items, and statistically significant findings were reported. Chi-squared test for independence was used to evaluate differences between nominal-level demographic data (geographic region, hospital type, and unit setting) with the ordinal-level Likert-style survey items from the Perceived Needs and Perceived Barriers subscales. The Kruskal-Wallis test was used to evaluate differences between five levels of nursing experience with the survey items (all ordinal-level). As this was a new survey, internal consistency reliability statistics (Cronbach's alpha) were calculated for the two subscales. Three negatively-worded survey items were reversed scored for data analysis.

Results

A total of 335 nurses completed the survey. The 15-item Perceived Barriers subscale and the 13-item Perceived Needs subscale both

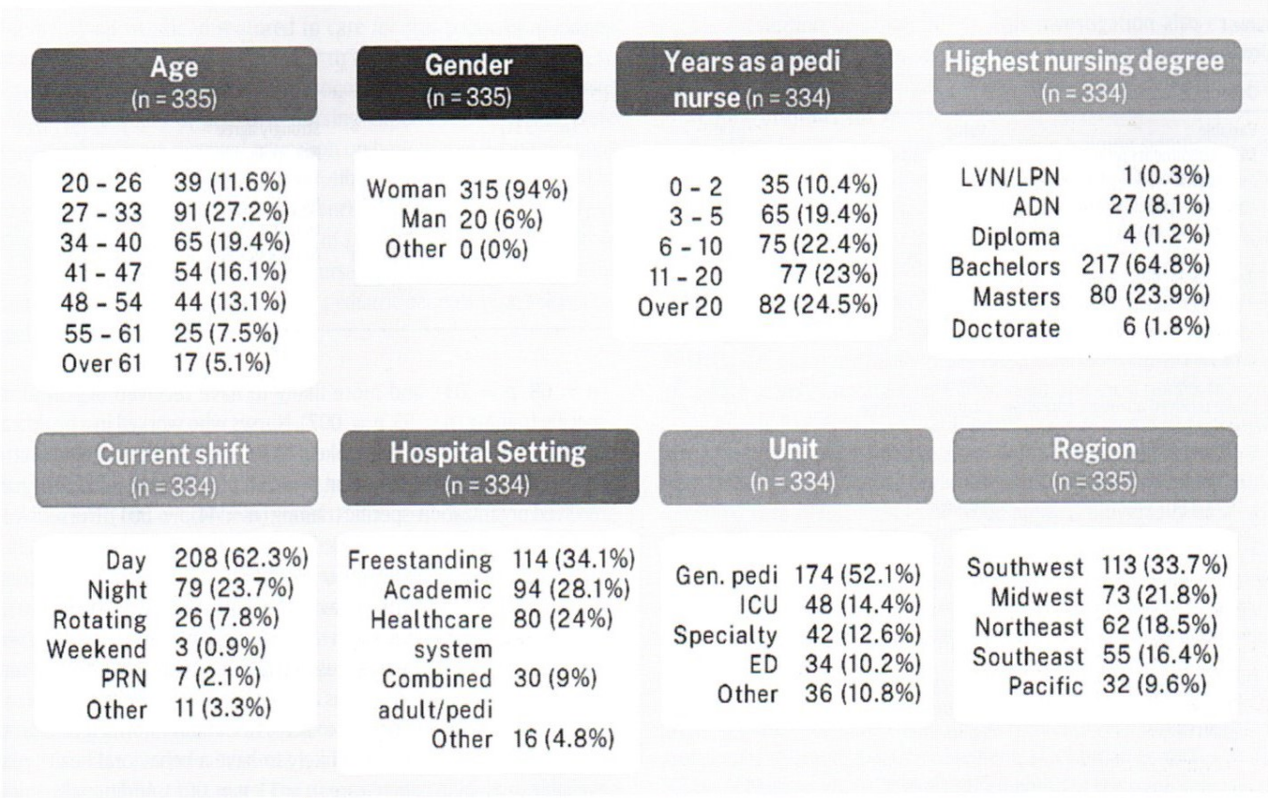

Fig. 1. Participant demographic data.

demonstrated good internal consistency ($\alpha = 0.82$ and $\alpha = 0.84$). Participant demographic data is available in Fig. 1. Most study participants identified as women (94%, $n = 315$) between 27 and 33 years old (27.2%, $n = 91$), had at least 11 years of pediatric nursing experience (47.5%, $n = 159$), had a bachelor's degree in nursing (64.8%, $n = 217$), lived in the Southwest region of the country (33.7%, $n = 113$), and worked on a general medical-surgical unit (52.1%, $n = 174$) on day shift (62.3%, $n = 208$) in a free-standing children's hospital (34.1%, $n = 114$). (See Table 1.)

Overall results

Overall survey results for the Perceived Barriers and Perceived Needs subscales can be found in supplementary materials 1 and 2, respectively. Regarding their perception of their situation when caring for pediatric patients with behavioral health needs on non-psychiatric units, 55.7% ($n = 184$) of nurses felt that nurses' assignments did not reflect the increased workload in caring for patients with behavioral health needs. Over half of the survey respondents (63.5%, $n = 212$) reported only sometimes, rarely, or never knowing what to do when caring for pediatric patients with behavioral health needs on non-psychiatric units, and 40.4% ($n = 135$) felt they had not received adequate education to be competent in caring for these patients. Over half of the respondents (55.5%, $n = 186$) felt they had insufficient physical resources available in their unit to care for this patient population. About half of the nurses in this survey (48.6%, $n = 163$) reported feeling stressed when assigned to a pediatric patient with behavioral health needs, 43.4% ($n = 145$) would prefer not to be assigned to care for this patient population, and 40.1% ($n = 132$) of nurses were unaware of strategies to feel emotionally supported during their shifts. Specific resources that were inaccessible to nurses were a trauma history screening tool (70.3%, $n = 234$), a toolkit for staff to use to offer coping strategies (66.5%, $n = 222$), and a trauma-informed care protocol (56.2%, $n = 186$).

Only 37.1% ($n = 124$) of nurses felt knowledgeable about de-escalation techniques, 55.4% ($n = 185$) reported not receiving de-escalation training, and de-escalation training was rated as the most important educational need. Other education topics that nurses reported *not* receiving were: sitter training (75.1%, $n = 251$), personal protective gear (69.5%, $n = 232$), therapeutic communication (57.5%, $n = 192$), organization-specific training (56.3%, $n = 188$), and modifications to ensure a safe environment (49.1%, $n = 164$).

The ability of nurses to provide knowledgeable care to these patients is impacted by 43.3% ($n = 143$) of nurses reporting they cannot access staff with behavioral health expertise for assistance. Additionally, 40.2% ($n = 133$) of nurses felt there was no effective communication between the bedside nurse and the behavioral health team. Similarly, 42.7% ($n = 140$) of respondents felt there was no strong collaborative relationship between the unit and the behavioral health team when these children were admitted to non-psychiatric units.

Significant differences by region

Nurses in the Southeast and Southwest regions ($n = 168$) indicated they were less fearful when caring for pediatric patients with behavioral health needs ($n = 101$, $p = .03$), more often knew what to do for their patients ($n = 74$, $p = .01$), were more likely to have received organization-specific training ($n = 89$, $p = .0.13$), and more likely to report rounding by the behavioral health team every 24 h or when called ($n = 92$, $p = .035$). Nurses working in the Pacific region ($n = 32$) were less likely to have sufficient resources when caring for patients with behavioral health needs ($n = 4$, $p = .014$), less likely to have received education on the use of personal protective gear ($n = 3$, $p = .04$), less likely to report being able to screen for trauma history on admitted patients ($n = 2$, $p = .16$), and less likely to feel there was a strong collaborative relationship between the unit and the behavioral health team ($n = 5$, $p = .025$).

Significant differences by hospital type

Nurses who worked in freestanding children's hospitals ($n = 114$) were more likely to have received education on caring for patients with behavioral health needs ($n = 88$, $p = .003$), more likely to be aware of specific strategies to feel physically safe during their shift

Table 1
Overall results summary.

Overall Results Summary		
Variable	Value	(n) %
Staff assignments reflect the increased workload in caring for pediatric patients with behavioral health needs. ($n = 330$)	Strongly disagree	(77), 23.3%
	Disagree	(107), 32.4%
	Neutral	(55), 16.7%
	Agree	(73), 22.1%
	Strongly agree	(18), 5.5%
When caring for pediatric patients with behavioral health needs, I feel that I know what to do for my patients. ($n = 334$)	Never	(5), 1.5%
	Rarely	(39), 11.7%
	Sometimes	(168), 50.3%
	Often	(111), 33.2%
	Always	(11), 3.3%
I have received adequate education to feel competent in caring for pediatric patients with behavioral health needs. ($n = 334$)	Strongly disagree	(38), 11.4%
	Disagree	(97), 29%
	Neutral	(77), 23.1%
	Agree	(100), 29.9%
	Strongly agree	(22), 6.6%
Our unit has sufficient physical resources (e.g., protective gear, sitter availability, coping tools) for caring for pediatric patients with behavioral health needs. ($n = 335$)	Strongly disagree	(66), 19.7%
	Disagree	(120), 35.8%
	Neutral	(55), 16.4%
	Agree	(76), 22.7%
	Strongly agree	(18), 5.4%
I feel stressed when I am assigned a pediatric patient with behavioral health needs. ($n = 335$)	Strongly disagree	(40), 11.9%
	Disagree	(77), 23%
	Neutral	(55), 16.4%
	Agree	(122), 36.4%
	Strongly agree	(41), 12.2%
I would prefer not to be assigned a pediatric patient with behavioral health needs. ($n = 334$)	Strongly disagree	(43), 12.9%
	Disagree	(90), 26.9%
	Neutral	(56), 16.8%
	Agree	(97), 29%
	Strongly agree	(48), 14.4%
I know specific strategies to feel emotionally supported during my shift when caring for pediatric patients with behavioral health needs. ($n = 329$)	Strongly disagree	(36), 10.9%
	Disagree	(96), 29.2%
	Neutral	(80), 24.3%
	Agree	(108), 32.8%
	Strongly agree	(9), 2.7%
For every pediatric patient admitted to my unit, I am able to complete a screen to evaluate trauma history. ($n = 333$)	Yes	(52), 15.6%
	No	(234), 70.3%
	Not applicable	(47), 14.1%
Our unit has a toolkit available for staff to use that offers coping strategies when caring for pediatric patients with behavioral health needs. ($n = 334$)	Yes	(85), 25.4%
	No	(222), 66.5%
	Not applicable	(27), 8.1%
I am able to readily access a trauma-informed care protocol for guidance/advice when needed. ($n = 331$)	Strongly disagree	(52), 15.7%
	Disagree	(134), 40.5%
	Neutral	(78), 23.6%
	Agree	(59), 17.8%
	Strongly agree	(8), 2.4%
I have sufficient knowledge of de-escalation techniques with pediatric patients with behavioral health needs. ($n = 334$)	Strongly disagree	(33), 9.9%
	Disagree	(104), 31.3%
	Neutral	(73), 21.9%
	Agree	(92), 27.5%
	Strongly agree	(32), 9.6%
Please select all topics of specific education you received related to caring for pediatric patients with behavioral health needs. ($n = 334$)	De-escalation training	(149), 44.6%
	Organization-specific training course (e.g., Crisis Prevention Intervention)	(146), 43.7%
	Modifications to ensure a safe environment	(170), 50.9%
	Therapeutic communication	(142), 42.5%
	Sitter training	(83), 24.9%
	Personal protective gear	(102), 30.5%
I am able to readily access staff with behavioral health expertise for guidance/advice when needed. ($n = 330$)	Strongly disagree	(48), 14.5%
	Disagree	(95), 28.8%
	Neutral	(60), 18.2%
	Agree	(98), 29.7%
	Strongly agree	(29), 8.8%
I feel that there is effective communication between nurses on our unit and the Behavioral Health Team. ($n = 331$)	Strongly disagree	(48), 14.5%
	Disagree	(85), 25.7%
	Neutral	(74), 22.4%
	Agree	(83), 25.1%
	Strongly agree	(21), 6.3%
	Not applicable	(20), 6.0%
Our unit and the Behavioral Health Team have a strong collaborative relationship when pediatric patients with behavioral health needs are admitted to our unit. ($n = 328$)	Yes	(88), 26.8%
	No	(140), 42.7%
	Not sure	(61), 18.6%
	Not applicable	(39), 11.9%

($n = 68$, $p = .03$), and more likely to have received organization-specific training ($n = 55$, $p = .007$). Nurses who worked in a healthcare system ($n = 80$) were more likely to be able to screen each admitted patient for aggressive behavior ($n = 54$, $p = .001$) and likely to have received organization-specific training ($n = 44$, $p < .001$). Nurses working in combined adult/pediatric hospitals ($n = 30$) were less likely to feel they have received adequate education to feel competent in caring for pediatric patients with behavioral health needs ($n = 10$, $p = .012$), less likely to have a toolkit for staff with coping strategies to help with patient care ($n = 2$, $p = .001$), less likely to feel there was effective communication between unit nurses and the behavioral health team ($n = 5$, $p = .032$), less likely to be able to access a trauma-informed care protocol ($n = 3$, $p = .05$), and less likely to have a behavioral health team available to assist in patient care ($n = 11$, $p = .001$). Additionally, nurses working in combined adult/pediatric hospitals were more likely to request education on coping skills and a tool to assist in patient care ($n = 15$, $p = .015$) and were less likely to rank themselves as confident when caring for pediatric patients with behavioral health needs ($n = 4$, $p = .036$).

Significant differences by hospital unit

Nurses who worked in the ED ($n = 34$) were less likely to be fearful when caring for pediatric patients with behavioral health needs ($n = 4$, $p = .02$), more often knew what to do for their patients ($n = 22$, $p = .034$), and were more confident ($n = 17$, $p = .025$) and competent when caring for children with behavioral health needs ($n = 19$, $p = .006$). Nurses in the ED received sufficient education on ensuring a safe environment ($n = 23$, $p = .013$) and de-escalation techniques ($n = 23$, $p = .005$). While nurses in the ED were less likely to report feeling stressed when caring for a child with behavioral health needs ($n = 7$, $p < .001$) and more often had access to a toolkit with coping strategies ($n = 16$, $p = .008$), they were more likely to feel that stress reduction education would be beneficial for their staff ($n = 24$, $p = .022$). Behavioral health teams were less likely to be available to nurses in the ED via regular rounding or when called ($n = 15$, $p < .001$). Finally, nurses in the ED were less likely to report being able to evaluate patients' trauma history ($n = 11$, $p = .002$).

Nurses working on general pediatric units ($n = 174$) were more likely to prefer not being assigned to care for a child with behavioral health needs ($n = 90$, $p = .01$), less likely to have sufficient resources to provide patient care for these patients ($n = 35$, $p < .001$), and more likely to report feeling education on coping skills and tools would be beneficial ($n = 111$, $p = .022$). Nurses working in the intensive care unit ($n = 48$) were more likely to have received education about caring for this patient population ($n = 37$, $p = .028$), specifically on ensuring a safe environment ($n = 32$, $p = .013$) and being patient safety sitters ($n = 20$, $p = .019$).

Significant differences by years of pediatric nursing experience

Nurses with up to two years of pediatric nursing experience ($n = 35$) were less likely to feel confident in their ability to use restraints ($n = 11$, $p = .004$), more likely to feel nurse assignments reflected

the increased workload required to care for this patient population ($n = 14$, $p = .001$), and more likely to be knowledgeable on how to access a trauma-informed care protocol ($n = 13$, $p = .013$). Nurses with 6 to 10 years of pediatric nursing experience ($n = 72$) were more likely to have received education on how to make modifications to promote a safe environment ($n = 46$, $p = .009$). Nurses with 11 to 20 years of pediatric nursing experience ($n = 77$) were less likely to have received education on the use of personal protective gear ($n = 14$, $p = .007$) and less likely to feel nurse assignments reflected the increased workload required to care for pediatric patients with behavioral health needs ($n = 10$, $p = .001$).

Discussion

More than half of the participating nurses in this study indicated that they only sometimes, rarely, or never know what to do when caring for children with behavioral health needs on non-psychiatric units. These findings align with prior research, underlining that nurses frequently encounter situations where they feel unprepared, uncertain in their actions or responses, and unsupported when tending to pediatric patients with behavioral health needs in non-psychiatric settings (Bowden et al., 2021; Singh-Weldon et al., 2022; Vallières-Noël et al., 2016). Bowden et al. (2021) found that interventions, such as applying restraints or administering psychiatric rescue medication, particularly to a child, can trigger anxiety and moral distress among staff who are not adequately trained for such circumstances. The unique needs of children with mental health needs often make it difficult to find units or hospitals equipped to meet their unique needs, leading to boarding and a cycle of unprepared nurses taking on the care of children experiencing a mental health crisis. The current study shows that nurses lack confidence in their ability to perform certain skills when caring for these children, including de-escalation techniques and using therapeutic communication. Only 36.5% of survey respondents feel that the education they've received has equipped them to competently care for these children. This reinforces the findings of Singh-Weldon et al. (2022), who established a close relationship between nurses' education and their confidence levels. In the absence of adequate education, nurses perceive their lack of knowledge as a barrier to delivering effective care to children with behavioral health needs. This also aligns with prior investigations that underscore the willingness of nurses to deliver top-tier care to this patient demographic but highlight how administrative hurdles, such as inadequate education, impede their sense of competence (Dahnke & Mulkey, 2021; Vallières-Noël et al., 2016).

Behavioral health teams are a strategy used to provide expert guidance for staff in real-time and to manage patient de-escalation for patients with behavioral health needs on non-psychiatric units (Dahnke & Mulkey, 2021). While most of the nurses in this study acknowledged the presence of a behavioral health team in their hospital to aid in the care of these patients, a substantial portion encountered difficulties in accessing these specialists. Furthermore, only 26.8% of nurses felt that a collaborative relationship existed between their unit and the behavioral health team. This discrepancy could stem from inconsistent or absent protocols governing the utilization of behavioral health response teams across different regions, despite evidence of their positive effects on staff satisfaction, safety, and patient outcomes (Parker et al., 2020; Rajwani, Clark, & Montalvo, 2023).

Participants in this study rated de-escalation training as the most important educational need. Without accessible support from a behavioral health team, frontline nurses must manage de-escalation techniques to prevent violent behavior, avoid restraints, and maintain a safe environment for patients and staff (The Joint Commission, 2019). However, only 37.1% of survey respondents agreed they had sufficient knowledge of de-escalation techniques with pediatric patients with behavioral health needs. A recent survey study of over 3000 healthcare professionals revealed that 31% of respondents reported having received de-escalation training either only once or never at all (Crisis Prevention Institute, 2023). This investigation also exposed substantial disparities in the delivery and frequency of de-escalation training across healthcare organizations, regardless of their size (Crisis Prevention Institute, 2023).

Research demonstrates that de-escalation training significantly enhances nurses' confidence in managing patients exhibiting aggressive behaviors (Christensen et al., 2022; Lamont & Brunero, 2018). However, de-escalation training strategies can vary widely and often require in-person, simulation-based education events, which can be impacted by financial barriers and a lack of resources across settings (Somani et al., 2021).

Over 75% of survey respondents rated trauma-informed care as an important or very important education need, and most nurses reported being unable to access a trauma-informed care protocol to guide their care of patients. Most survey respondents reported being unable to complete a trauma history evaluation for their patients, yet trauma-informed care is recommended to be applied universally as a basic means of providing patient care (American Association of Colleges of Nursing, 2023). The absence of education about and access to trauma-informed care protocols among nurses in this study mirrors a recent literature synthesis by Bargeman et al. (2022) highlighting a lack of clear conceptual understanding and a lack of standardized implementation of trauma-informed care within the healthcare sector. Trauma-informed care is a patient-centered, empathy-driven approach to healthcare to prevent the re-traumatization of patients (Fleishman et al., 2019). The Future of Nursing 2020–2030 report emphasizes the significance of offering nurses expanded learning opportunities to ensure their capability in providing equitable care to a population grappling with deteriorating mental health (National Academies of Sciences, Engineering, and Medicine, 2021).

Over half of the nurses in this study reported insufficient resources (including sitters) available to assist in caring for children with behavioral health needs on non-psychiatric units. The Joint Commission requires one-on-one, in-person visual observation of patients at risk for suicide, often completed by a staff designated as a "sitter" (The Joint Commission, 2022). When a sitter is required but unavailable, nurses are sometimes called upon to fill this role; however, about 75% of the nurses in this study reported never receiving training to do so. A scoping review of 44 articles on patient sitters showed a lack of standard training requirements and a lack of comprehensive definition of the role among settings (Wood et al., 2018). To ensure patient safety, nurses must be given the education, tools, and support they need to feel confident and competent in providing high-quality care to every patient admitted to their unit.

Differences between groups

Nurses' experiences and resources differed based on the type of hospital they worked in. This study shows that nurses working in freestanding children's hospitals reported receiving more education and support when caring for children with behavioral health needs. Freestanding children's hospitals are designed to comprehensively support specially trained multidisciplinary teams to meet the individualized needs of children and their families (Casimir, 2019). Nurses working in healthcare systems received organization-specific training and were empowered to conduct aggression screening upon patient admission. Healthcare systems often work to integrate care by leveraging information technology and integrating care laterally across hospitals, settings, and specialties (Agency for Healthcare Research and Quality, 2023; Casalino, 2023). The wide-reaching impact of broad healthcare systems may more easily lead to the integration of screening tools in electronic health records and provide standard training to staff. In the current study, nurses in combined adult/pediatric hospitals reported education, resources, and communication challenges, leading to lower confidence levels when caring for pediatric patients with behavioral health needs on non-psychiatric units. Combined adult/pediatric hospitals often do

the increased workload required to care for this patient population ($n = 14$, $p = .001$), and more likely to be knowledgeable on how to access a trauma-informed care protocol ($n = 13$, $p = .013$). Nurses with 6 to 10 years of pediatric nursing experience ($n = 72$) were more likely to have received education on how to make modifications to promote a safe environment ($n = 46$, $p = .009$). Nurses with 11 to 20 years of pediatric nursing experience ($n = 77$) were less likely to have received education on the use of personal protective gear ($n = 14$, $p = .007$) and less likely to feel nurse assignments reflected the increased workload required to care for pediatric patients with behavioral health needs ($n = 10$, $p = .001$).

Discussion

More than half of the participating nurses in this study indicated that they only sometimes, rarely, or never know what to do when caring for children with behavioral health needs on non-psychiatric units. These findings align with prior research, underlining that nurses frequently encounter situations where they feel unprepared, uncertain in their actions or responses, and unsupported when tending to pediatric patients with behavioral health needs in non-psychiatric settings (Bowden et al., 2021; Singh-Weldon et al., 2022; Vallières-Noël et al., 2016). Bowden et al. (2021) found that interventions, such as applying restraints or administering psychiatric rescue medication, particularly to a child, can trigger anxiety and moral distress among staff who are not adequately trained for such circumstances. The unique needs of children with mental health needs often make it difficult to find units or hospitals equipped to meet their unique needs, leading to boarding and a cycle of unprepared nurses taking on the care of children experiencing a mental health crisis. The current study shows that nurses lack confidence in their ability to perform certain skills when caring for these children, including de-escalation techniques and using therapeutic communication. Only 36.5% of survey respondents feel that the education they've received has equipped them to competently care for these children. This reinforces the findings of Singh-Weldon et al. (2022), who established a close relationship between nurses' education and their confidence levels. In the absence of adequate education, nurses perceive their lack of knowledge as a barrier to delivering effective care to children with behavioral health needs. This also aligns with prior investigations that underscore the willingness of nurses to deliver top-tier care to this patient demographic but highlight how administrative hurdles, such as inadequate education, impede their sense of competence (Dahnke & Mulkey, 2021; Vallières-Noël et al., 2016).

Behavioral health teams are a strategy used to provide expert guidance for staff in real-time and to manage patient de-escalation for patients with behavioral health needs on non-psychiatric units (Dahnke & Mulkey, 2021). While most of the nurses in this study acknowledged the presence of a behavioral health team in their hospital to aid in the care of these patients, a substantial portion encountered difficulties in accessing these specialists. Furthermore, only 26.8% of nurses felt that a collaborative relationship existed between their unit and the behavioral health team. This discrepancy could stem from inconsistent or absent protocols governing the utilization of behavioral health response teams across different regions, despite evidence of their positive effects on staff satisfaction, safety, and patient outcomes (Parker et al., 2020; Rajwani, Clark, & Montalvo, 2023).

Participants in this study rated de-escalation training as the most important educational need. Without accessible support from a behavioral health team, frontline nurses must manage de-escalation techniques to prevent violent behavior, avoid restraints, and maintain a safe environment for patients and staff (The Joint Commission, 2019). However, only 37.1% of survey respondents agreed they had sufficient knowledge of de-escalation techniques with pediatric patients with behavioral health needs. A recent survey study of over 3000 healthcare professionals revealed that 31% of respondents reported having received de-escalation training either only once or never at all (Crisis Prevention Institute, 2023). This investigation also exposed substantial disparities in the delivery and frequency of de-escalation training across healthcare organizations, regardless of their size (Crisis Prevention Institute, 2023).

Research demonstrates that de-escalation training significantly enhances nurses' confidence in managing patients exhibiting aggressive behaviors (Christensen et al., 2022; Lamont & Brunero, 2018). However, de-escalation training strategies can vary widely and often require in-person, simulation-based education events, which can be impacted by financial barriers and a lack of resources across settings (Somani et al., 2021).

Over 75% of survey respondents rated trauma-informed care as an important or very important education need, and most nurses reported being unable to access a trauma-informed care protocol to guide their care of patients. Most survey respondents reported being unable to complete a trauma history evaluation for their patients, yet trauma-informed care is recommended to be applied universally as a basic means of providing patient care (American Association of Colleges of Nursing, 2023). The absence of education about and access to trauma-informed care protocols among nurses in this study mirrors a recent literature synthesis by Bargeman et al. (2022) highlighting a lack of clear conceptual understanding and a lack of standardized implementation of trauma-informed care within the healthcare sector. Trauma-informed care is a patient-centered, empathy-driven approach to healthcare to prevent the re-traumatization of patients (Fleishman et al., 2019). The Future of Nursing 2020–2030 report emphasizes the significance of offering nurses expanded learning opportunities to ensure their capability in providing equitable care to a population grappling with deteriorating mental health (National Academies of Sciences, Engineering, and Medicine, 2021).

Over half of the nurses in this study reported insufficient resources (including sitters) available to assist in caring for children with behavioral health needs on non-psychiatric units. The Joint Commission requires one-on-one, in-person visual observation of patients at risk for suicide, often completed by a staff designated as a "sitter" (The Joint Commission, 2022). When a sitter is required but unavailable, nurses are sometimes called upon to fill this role; however, about 75% of the nurses in this study reported never receiving training to do so. A scoping review of 44 articles on patient sitters showed a lack of standard training requirements and a lack of comprehensive definition of the role among settings (Wood et al., 2018). To ensure patient safety, nurses must be given the education, tools, and support they need to feel confident and competent in providing high-quality care to every patient admitted to their unit.

Differences between groups

Nurses' experiences and resources differed based on the type of hospital they worked in. This study shows that nurses working in freestanding children's hospitals reported receiving more education and support when caring for children with behavioral health needs. Freestanding children's hospitals are designed to comprehensively support specially trained multidisciplinary teams to meet the individualized needs of children and their families (Casimir, 2019). Nurses working in healthcare systems received organization-specific training and were empowered to conduct aggression screening upon patient admission. Healthcare systems often work to integrate care by leveraging information technology and integrating care laterally across hospitals, settings, and specialties (Agency for Healthcare Research and Quality, 2023; Casalino, 2023). The wide-reaching impact of broad healthcare systems may more easily lead to the integration of screening tools in electronic health records and provide standard training to staff. In the current study, nurses in combined adult/pediatric hospitals reported education, resources, and communication challenges, leading to lower confidence levels when caring for pediatric patients with behavioral health needs on non-psychiatric units. Combined adult/pediatric hospitals often do

not have the specialized resources and training that standalone children's hospitals do (Casimir, 2019). Without education, nurses lack confidence in caring for this patient population (Singh-Weldon et al., 2022).

While nurses in the ED in this study felt more confident and knowledgeable with access to education and resources, they also reported less access to behavioral health teams and desired more stress reduction training. This aligns with recent research showing that nurses working in the ED have felt that caring for patients with behavioral health problems can be more stressful and challenging than caring for patients with physiological concerns (García-Carpintero Blas et al., 2023; Ryan et al., 2021). With increased mental health-related illnesses and a lack of inpatient treatment options, more and more patients turn to the ED for mental healthcare needs (Emergency Nurses Association, 2023). Regular access to mental health experts, such as those on a behavioral health team, may help nurses feel more supported in their goal of providing compassionate, patient-specific care in the ED.

Nurses on general pediatric units expressed a preference against caring for such patients and lacked resources. This aligns with previous literature that shows a lack of resources directly impacts nurse perception of their physical, mental, and emotional workload, making it unlikely they would prefer to take the assignment (Ivziku et al., 2022). A preference for not being assigned to care for children with behavioral health needs may also be indicative of stigmatization stemming from a lack of adequate support and education for nurses, leaving them to manage their bias on their own (Ryan et al., 2021).

This study showed that nurses' years of experience in pediatric nursing can influence their confidence, knowledge, awareness of support strategies, and perception of nurse assignments when caring for pediatric patients with behavioral health needs. Nurses with fewer years of experience might require additional training and support, whereas those with more tenure could exhibit specific knowledge gaps, such as knowledge of trauma-informed care protocols and identifying workload imbalances. Previous research has indicated that nurses with more experience tend to possess higher self-confidence and self-efficacy in their clinical abilities (Abu Sharour et al., 2022; Shorey & Lopez, 2021). This knowledge disparity between novice and seasoned nurses may stem from a heightened emphasis on prioritizing emotional well-being, as reflected in contemporary professional nursing education standards (American Association of Colleges of Nursing, 2021).

Limitations

Limitations of this study included the small study sample. The survey link was sent to over 3500 members of SPN and 161 nurse scientists to distribute at their respective clinical facilities. Many nurse scientists encountered barriers with survey distribution to their hospitals across the country, including simultaneous Magnet® site visits, other hospital or organization-wide surveying of nurses, nurses on strike, on-site surveys by The Joint Commission, critical staffing shortages, and general survey fatigue felt by nurses across the country. Future research should aim to include a more extensive and diverse sample of nurses to ensure more representative findings. Efforts should be made to overcome the barriers encountered during survey distribution to ensure broader participation from nurses across different regions and healthcare settings.

Practice implications

Using the results of this study, healthcare organizations can make targeted improvement efforts to better prepare and support nurses in caring for pediatric patients with behavioral health needs on non-psychiatric units, ensuring high-quality and equitable care for this vulnerable population.

Education and training

It is crucial to provide comprehensive education and training programs to address the knowledge gap and lack of preparedness nurses report in caring for pediatric patients with behavioral health needs on non-psychiatric units. Education topics most highly valued by nurses are de-escalation techniques, management of agitated patients, trauma-informed care, coping skills and tools, and stress reduction for staff. Nurses should have expanded learning opportunities to ensure patients receive equitable care without bias or stigmatization. On-demand webinars and toolkits would be accessible to front-line nurses across the country.

Establish collaborative relationships

Efforts should be made to foster a collaborative relationship between non-psychiatric units and behavioral health teams. This can be achieved by facilitating easy access to behavioral health experts for consultation and guidance. Regular communication, shared protocols, and joint educational sessions can help create a collaborative environment where nurses can seek support and expertise when caring for patients with behavioral health needs. Purposeful collaboration between SPN and groups of content experts, such as the American Psychiatric Nurses Association, the American Organization for Nursing Leadership, and the Emergency Nurses Association, may help facilitate more comprehensive support and education for frontline nurses nationwide.

Implement trauma-informed care

While it is expected that trauma-informed care is universally applied as a fundamental approach to providing patient care, nurses first need training and have access to trauma-informed care protocols to guide their care of patients. Efforts should be made to standardize and operationalize trauma-informed care in healthcare settings to ensure consistency and clarity in its application.

Ensure sufficient resources

Nurses must be provided with the necessary resources to care for pediatric patients with behavioral health needs. This includes patient safety sitters for one-on-one observation and training for nurses who may need to fill the sitter role when necessary. Adequate staffing, specialized equipment, and supportive measures should be in place to create a safe environment for patients and staff.

Tailor support for different hospital settings

Recognize the differences between hospitals, particularly freestanding children's hospitals and combined adult/pediatric hospitals. Freestanding children's hospitals should continue prioritizing education, support, and specialized resources for caring for pediatric patients with behavioral health needs, as this has shown that nurses feel more competent in providing care. Efforts should be made to integrate care in combined adult/pediatric hospitals and provide necessary training and resources to nurses in these settings. Collaboration between hospital associations and professional organizations, including SPN, may help ensure that similar recommendations for staff education and patient care protocols support hospitals nationwide.

Address ED challenges

As more patients turn to the ED for mental health-related issues, it is essential to provide education and resources to ED nurses. This includes training on managing behavioral health emergencies, stress reduction techniques, and access to behavioral health teams for consultation. Recognizing the specific challenges ED nurses face and addressing their

needs will help improve care for pediatric patients with behavioral health needs in the ED setting.

Bridge the gap between novice and tenured nurses

Acknowledge the knowledge gap between novice and tenured nurses and provide tailored support and training for nurses at different stages of their careers. Novice nurses may require more comprehensive training and mentoring, while tenured nurses may benefit from specific educational interventions to address their knowledge gaps. Supporting the professional development and ongoing education of nurses across all experience levels is essential.

Conclusion

This study highlighted pediatric nurses' challenges when caring for patients with behavioral health needs in non-psychiatric units during the pandemic. The findings reveal that nurses often feel unprepared and unsupported in their roles, with limited access to necessary resources and training. The increasing demand for pediatric mental healthcare has led to admitting children and adolescents to general care units, resulting in added workload and stress for nurses. There is a need for structured education, training, and support for nurses who practice in varying environments and settings with different levels of experience. Addressing these challenges is crucial to ensure high-quality care and better outcomes for this vulnerable patient population.

CRediT authorship contribution statement

Julie Van Orne: Methodology, Formal analysis, Investigation, Data curation, Writing – original draft, Writing – review & editing, Project administration.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.pedn.2023.11.017.

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