Grief in critical care nurses after pediatric suffering and death

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Background: Working in the pediatric intensive care unit (PICU) exposes nurses to intense and recurrent experiences with loss. Such experiences may result in unresolved grief or despair among these providers. Although previous studies have explored grief within the nursing profession, few have focused on grief following the death of children in the PICU, where sudden or traumatic deaths are more frequent. The aim of this study was to characterize the degree to which pediatric critical care (PCC) nurses experience symptoms of grief or distress following the suffering and/or death of a patient in the PICU.

Methods: An email invited PICU nurses at a large free standing children's hospital to complete an online survey with demographic questions and an open-ended, qualitative question about grief experiences. Research team members coded open-ended responses, using thematic content analysis. Final themes were further validated via member checking.

Results: Of the 104 participants, most were Caucasian (96.3%), female (97%), bedside (83.5%) nurses with a bachelor's degree (85.4%). Participants had variable years of experience and included both day (59.6%) and night (40.4%) shift nurses. After detailed analysis, the research team identified four major themes among pediatric critical care (PCC) nurses when asked about grief symptoms and distress following the suffering or death of a patient in the PICU: (I) continuum of emotional responses; (II) emotional prompts; (III) coping, and (IV) resilience.

Conclusions: Many PICU nurses were profoundly affected by the death of their patients, while others offered strategies that fostered resilience. Understanding the impact of repeated loss on these specialized nurses may inform the development of more effective grief and bereavement support programs for healthcare providers.

Keywords: Critical care; death; grief; pediatric; suffering

Introduction

The fundamental goal of critical care is to save lives, but despite this, critical care nurses encounter death on a regular basis. Although the healthcare team strives to preserve life; naturally, a critically ill child requiring intensive supportive care may not survive. Repeated exposure to patient death and suffering provokes a spectrum of intense physical and emotional responses (1-5).

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These responses may be amplified in pediatrics, where nurses not only care for the most vulnerable patients, but their families as well.

Frequent patient deaths expose nurses to intense and recurrent experiences with loss, which may result in unresolved grief or despair (6-8). Nurses may experience feelings of personal loss at the time of a patient death (6,8), but not feel as if they have a socially recognized right, role, or the capacity to grieve over their patients (9,10). Nurses often ignore feelings of grief leading to unrecognized and unaddressed grief that may become chronic and cumulative (11). Physical symptoms of cumulative grief may develop and include; physical illness, substance abuse, suicidal thoughts, apathy, poor self-esteem, depression, and anxiety (12,13). Cumulative grief may cause nurses to emotionally detach or overinvest in patients' lives (14). Grief in nursing is associated with burnout, decreased job satisfaction, increased staff turnover, interpersonal conflict and compassion fatigue (15-17).

Specific to pediatrics, the way nurses respond to grief is associated with extraneous factors (18). Factors contributing to the grief response can include, previous death experiences, personal grief, professional nursing attitudes and workplace environment (19).

Although, previous studies have explored grief within the nursing profession (3,4,20-23), few have focused on grief following the death and/or suffering of a child in the pediatric intensive care unit (PICU). Witnessing the suffering of a child can negatively affect healthcare professionals and is a significant contributor to moral distress (24,25). Understanding the nature of grief within this group of specialized nurses may provide organizations with tools for building more impactful grief and bereavement support programs for healthcare providers. The aim of this study was to characterize the degree to which pediatric critical care (PCC) nurses experience symptoms of grief or distress following the suffering and/or death of a patient in the PICU. We present the following article in accordance with the SRQR reporting checklist (available at https://apm.amegroups.com/article/view/10.21037/apm-21-3225/rc).

Methods

Data for this paper was part of a larger study examining the well-being of nurses in the PICU. All pediatric critical care nurses working in the PICU at a large, pediatric institution in the Midwest region of the United States of America,

were eligible for participation in this cross-sectional study. The PICU is a 54-bed multidisciplinary unit with over 3,000 admissions per year. The institution is designated as a Level 1 trauma center, certified pediatric burn center, and provides care to a diverse patient population, including recipients of solid organ and bone marrow transplant, as well as patients requiring advanced organ support such as extracorporeal membrane oxygenation (ECMO) and continuous renal replacement therapy (CRRT). To provide additional description of the study setting in comparison to other institutions, we referenced the Virtual Pediatric Systems (VPS) database; a database with information on over 1 million PICU admissions, from over 130 hospitals addressing all aspects of PCC medicine (26). According to VPS for the year of the survey [2019], unadjusted mortality (number of deaths divided by the population at risk) in the PICU was 1.63% (52/3,192 admissions), compared to 2.06% (2,713/131,650 admissions) for PICU admissions across all institutions included in the national VPS database. Regarding institutional nursing support, there is a well-established second victim program embedded within the institution, and all employees have access to a finite number of free professional counseling sessions per year. The PICU has occasional, inconsistent debriefings but no formalized process for this after a patient death.

Data collection

Following approval from the Institutional Review Board, which included ethical approval, a purposive sample, which included all PICU nurses at a single institution were invited to participate in the study. PICU nurses received an email with an information sheet explaining the study purpose, procedures, risks, benefits, and their rights as a research volunteer. Participants opted in by clicking on the link to the online survey and had 6-week to complete it. The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). The study was approved by the Institutional Review Board of Nationwide Children's Hospital (#00000193) and informed consent was obtained by participant decision to complete the electronic survey embedded within the participant information sheet.

Upon completion of the survey participants received a gift card for the hospital coffee shop. The ten-minute online survey included a series of demographic questions, and a qualitative question with free text responses about their grief experiences as a PICU nurse. The qualitative question was developed after several discussions with

Table 1 Participant demographics

Demographics	n (%)
Gender	
Female	97 (94.2)
Male	6 (5.83)
Age, median [IQR]	29.0 [25.0, 35.2]
Race	
African-American	2 (1.92)
Asian	1 (0.96)
Caucasian	100 (96.2)
Other non-Caucasian	1 (0.96)
Ethnicity	
Hispanic	3 (2.91)
Non-Hispanic	100 (97.1)
Household income	
$26,000–50,000	9 (8.74)
$51,000–75,000	38 (36.9)
$76,000–100,000	17 (16.5)
$101,000–150,000	20 (19.4)
$150,000+	19 (18.4)
Partner	
No partner	27 (26.0)
Partner	77 (74.0)
Children	
No	57 (55.9)
Yes	45 (44.1)

bedside nurses and nursing managers regarding the emotional impact on healthcare workers after adverse patient events in the PICU. The question for our qualitative analysis was, "Some nurses who witness the suffering or death of patients in the PICU may experience grief symptoms or distress, while others may experience few if any symptoms. Please describe the degree to which you experience grief symptoms or distress following the suffering or death of a patient in the PICU". The study was done via electronic survey due to PCC nurses indicating a higher level of participation if the study was done electronically, as well as the importance of participant anonymity with a primarily PCC research team.

Statistical analysis

Thematic content analysis was conducted by a PCC attending level physician (MS), PCC senior fellow physician (KG), and a bachelor's level research assistant (AA). Transcripts of open-ended responses were coded, using a constant comparative method in batches of 25 responses, over several different in-person meetings. In these meetings, the research team would discuss, refine, and synthesize codes and themes until saturation was achieved. Discrepancies between team members were resolved by re-reading individual responses together and reaching consensus through discussion. Final themes and supporting responses were reviewed by a pediatric psychologist (CG), with expertise in the use of qualitative methods in behavioral research. Final themes were further validated via member checking. Member checking consisted of brief, in-person interviews with participants who were purposively chosen by the research team to ensure diversity within the group. Detailed notes were transcribed and reviewed by all research team members. No adjustments were required after completion of member checking process.

Results

A total of 104 of 210 (49.5%) nurses completed the survey. Most were Caucasian (n=97, 96.3%), female (n=100, 97%), bedside (n=86, 83.5%) nurses with a bachelor's degree (n=88, 85.4%). The Caucasian, female prevalence was expected, as this is representative of PCC nurse workforce at the institution. Participants included both day (n=62, 59.6%) and night (n=42, 40.4%) shift nurses (*Tables 1,2*).

Thematic content analysis revealed the emergence of four primary themes in response to the question about grief symptoms and distress following the suffering or death of a patient in the PICU. Themes related to the experience included: (I) continuum of emotional responses, (II) emotional prompts, (III) coping strategies, and (IV) resilience (*Table 3*).

Continuum of emotional responses

A prevailing theme identified by nurses was the experience of a continuum of emotional responses, which were further delineated on a spectrum of impact and described as minimal, transient, or persistent/intrusive (i.e., specific, repetitive thoughts related to trauma) emotional responses. Some nurses experienced an emotional response with

Table 2 Participant education and experience level summarized.

Education/experience level	n (%)
Education	
Associates	5 (4.85)
Bachelors	88 (85.4)
Masters	10 (9.71)
Years nursing	
≤3 years	35 (34.0)
>3–5 years	16 (15.5)
6–10 years	20 (19.4)
>10 years	32 (31.1)
Years PICU*	
≤3 years	38 (37.3)
>3–5 years	19 (18.6)
6–10 years	20 (19.6)
>10 years	25 (24.5)
Role	
Administrative	1 (0.97)
Bedside	86 (83.5)
Charge nurse	11 (10.7)
Research	2 (1.94)
Resource nurse	3 (2.91)
Location	
Both H2B and H8B	1 (0.96)
H2B	66 (63.5)
H8B	37 (35.6)
Shift	
Day	62 (59.6)
Night	42 (40.4)
Formal EOL** training	
No	53 (51.5)
Yes	50 (48.5)
Debriefing session	
No	84 (83.2)
Yes	17 (16.8)

*, pediatric intensive care unit; **, end of life.

minimal impact and shared statements like, "I do not feel many symptoms", or "I have dealt with these experiences in a healthy manner and not suffered from grief or distress". Others reported a transient response which subsided with time, such as "I like to let myself think of the patient and family for a little while to cope with their death, but I do try to detach myself from thinking about it for too long", and, "There's always grief. Many times, it's crying and accepting that this happened before moving on". Some expressed persistent/intrusive emotional responses highlighted by statements like, "After witnessing suffering, I often feel emotionally drained for sometimes days after the event. I also often think about the event for days to weeks after" or "I do think about the kids that I have taken care of or been there when they have passed. I can think about someone who died years ago randomly. They don't fully leave my mind". Some experience persistent daily grief, "It is rare for me to have a night where I do not have some sort of dream about work, almost always distressing". Additional participant quotes related to this theme can be found in *Table 3*.

Emotional prompts

Another theme expressed by nursing staff was experiencing emotional prompts, dichotomized by those which compound (increase) versus alleviate (decrease) emotional responses. Certain quotes will be highlighted here, however additional quotes can be found in *Table 3*. Compounding prompts may be identified as mirrored experiences, "The symptoms for me are the worst when I can imagine myself and kids in that situation" and "Now, after having my own children, I find distress is so much quicker to surface, and the distress and grief are so much more powerful. It's so easy to place myself in the shoes of the patient's parents and think 'what if', and it is terrifying on a whole new level". Personal relationships with the patient and family also magnified emotional responses, as evidenced by comments like, "The level of grief and distress I feel following a patient death mainly depends on the relationship I have with the patient and/or their family. It's all about connection for me" and "I have always experienced distress with suffering and grieved over patients' deaths—especially patients I have cared for long-term whom I've grown close to, or when I've formed special relationships with their families". Lastly, perceived

Table 3 Display of themes and subthemes with supporting participant responses.

Themes	Participant responses
Continuum of emotional responses	
Minimal	I do not feel many symptoms
	In the past I have dealt with these experiences in a healthy manner and not suffered from grief or distress
	I do not feel many symptoms. I recognize that this is part of everyone's journey
	I am always sad when we lose a child, however I try to keep work and life balance
	So far, I have not had many feelings of grief or distress following the death of a patient
	I feel sympathy for my patients and their families but do not experience many grief symptoms outside of work
	I rarely experience intense feelings of grief for my patients
Transient	I usually feel more sadness for the families of the patients who are experiencing intense grief
	It's sad, but I don't linger on that feeling
	I like to let myself think of the patient and family for a little while to cope with their death, but I do try to detach myself from thinking about it for too long
	I always try to remain professional at work, but I accept the fact that I am human and need to get my emotions out
	I felt a little grief for my patient that passed away. It was emotional for me, but I believe that it is okay for nurses to feel emotional about a patient's death. I was able to easily deal with the grief, and it did not hinder my work
	There's always grief. Many times, it's crying and accepting that this happened and a day or two to process the fact before moving on
Persistent/intrusive	Extra horrible situations, and I guarantee they'll stay with me forever
	I struggle to understand the "why" and find myself thinking about various cases at random times in my life
	I do think about the kids that I have taken care of or been there when they have passed. I can think about someone who died years ago randomly. They don't fully leave my mind. They can come and go
	Mentally exhausted, emotionally drained, can't leave work at work. thinking about it at home, having dreams about it
	After witnessing suffering, I often feel emotionally drained for sometimes days to weeks after the event. I also often think about the event for days to weeks after
	It is very rare for me to have a night where I do not have some sort of dream about work, almost always distressing
	I have images running through my head about the things we saw. I hear the parents' sounds of crying. That is the worse sounds in the world

Table 3 (*continued*)

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Themes	Participant responses
Emotional prompts	
Enhanced	My distress is over the suffering that we inflict on patients by not allowing them to die. I am significantly impacted by this
	My biggest emotion that I run into at work is why we continue to put children through what we do. I know it sounds terrible, but sometimes I see it as torture
	I feel very frustrated when patients suffer and nothing is being done to help or nothing more can be done. I feel defeated
	I worried that I wasn't doing enough to alleviate the suffering, or that I made mistakes that ultimately led to suffering
	I have always experienced distress with suffering, and grieved over patients' deaths– especially patients I have cared for long-term whom I've grown close to, or when I've formed special relationships with their families
	If it was someone I was very close to, it has been more difficult
	The level of grief and distress I feel following a patient death mainly depends on the relationship I have with the patient and/or their family. It's all about connection for me. If I have formed a deep connection with who I am caring for, I will grieve hard after the death
	It depends on how much I cared for the patient. If I took care of them often, I sometime think about it and can be sad
	I have more symptoms in cases where I am directly in something traumatic or in cases I have spent a lot of time with the patient and their family
	The symptoms for me are the worst when I can imagine myself and kids in that situation
	Now, after having my own children, I find the distress is so much quicker to surface, and the distress and grief are so much more powerful. It's so easy to place myself in the shoes of the patient's parents and think, "what if", now, and it is terrifying on a whole new level
	If the patient is the age of one of my children or I have taken care of them frequently, it is more difficult
	Prior to me losing a close family member, I felt I was able to work through grief of those patients well. After I personally faced a loss, coping with death of patients in the PICU has become more of a challenge
Diminished	When the patient has been suffering for a while, such as a cancer patient or chronic patient, I somehow feel more at ease with their death
	A lot of the time when a patient passes, I am able to acknowledge their suffering is over
	If I had not clue who they were or did not care for them, it does not affect me
	The only deaths I have personally witnessed have been withdrawing care on more "chronic" patients, and I think that this has helped to lessen some of the distress that I might otherwise feel
Coping	
Compartmentalize	Sometimes cry on the way home or upon arrival but then look at the good in my own life and my own family and distance my personal life and work life
	It touches me, but I tend to leave work at work
	I can manage these symptoms in myself, almost like out of sight, out of mind
	Essentially, I have formed a wall
	I cry in the car on my way home
	I always allow myself to cry when I get to my car
	It usually hits in the car
	Can separate my work from my life outside of work well

Table 3 (*continued*)

Table 3 (*continued*)

Themes	Participant responses
Support network	After taking care of a critically ill patient, I enjoy talking about it with other coworkers who understand
	I have close friends with whom I can talk and lean on
	I have found talking about and not burying my feelings is beneficial
	Talk about it w/other RNs
	Everyone copes in different ways, but I have never felt alone in this job. We are good about checking on each other
	I feel like I need someone to relate too, so I talk with fellow nurses
	I enjoy talking about it with other coworkers who understand
Internal transformation	I grieve a little for patient deaths even if I was not the one caring for them. It's hard not to. But I do find that that has lessened over the years as I have "hardened"
	I believe I have become hardened to patient scenarios. It can be difficulty seeing each patient as an individual
	I used to grieve more than I do now
	I personally have not experienced a patient death, but my outlook on death is its natural, it happens, we just don't know when or how but it will happen. Some people may think that my outlook on death is slightly morbid or unemotional, but it's how I handle it and how I separate myself from my work
Validation in good work	I feel I did a good job and can take some solace in that
	My friends who are coworkers helped me realize I did a good job taking care of this patient and made me realize I did nothing to harm or hinder them
	When I know I have done everything in my power for the patient and family it helps me process the situation better
	I try to think about the good things I have done to help the patient throughout their suffering
	I think about all the positive patient outcomes/miracles I have been a part of in the PICU
Resilience	I feel that I relate so well to many people, and I can feel the physical hurt and strain that some parents feel with their children in the hospital, but I think this makes me a better nurse, person, and mother to my children at home
	It makes me appreciate my life and my children. I am lucky to not have to go through the pain and suffering that some of these patients and families go through
	I don't feel a lot of grief. I put it in aspect that I cherish and appreciate my family
	I am empathetic for the families but don't allow myself to fall apart, because I need to comfort them and not make them feel the need to comfort me
	I personally do just fine. As I said above, I think about all the positive patient outcomes/miracles I have been a part of in the PICU
	Death is a part of life. A PICU nurse understands that death is part of the job. Again, it takes a special person to work in the PICU. Yes, I will be upset, but it doesn't consume me. We see more healing than death at times in the PICU

PICU, pediatric intensive care unit; RN, registered nurse.

patient suffering may compound or alleviate the level of emotional response dependent on perception. Some nurses commented, "My distress is over the suffering we inflict on patients by not allowing them to die. I'm significantly impacted by this" and "I feel very frustrated when patients suffer and nothing is being done to help or nothing more can be done. I feel defeated". Alternatively, other nurses explained, "When the patient has been suffering for a while, I somehow feel more at ease with their death" or "When a patient passes, I am able to acknowledge their suffering is over".

Coping

Nurses offered strategies they used to cope with the suffering and death of children in the PICU. Coping was further delineated into 4 subthemes, identified as (I) compartmentalization, (II) reliance on a support network, (III) internal transformation, and (IV) validation in providing quality care. Compartmentalization was described as, "It touches me, but I tend to leave work at work", and "I can manage these symptoms myself, almost like out of sight, out of mind". Coworkers were often identified as a source of support, highlighted by comments such as, "I feel like I need someone to relate to, so I talk with fellow nurses", "Everyone copes in different ways, but I have never felt alone in this job. We are good about checking on each other", and "After taking care of a critically ill patient, I enjoy talking about it with other coworkers who understand". Internal transformation described the change over time in how nurses steeled themselves so losses had less effect on them, such as, "I believe I have become hardened to patient scenarios", "I do find that [grief] has lessened over the years as I have 'hardened", and "I used to grieve more than I do now". Some nurses focus on the positive and find validation in work well done, such as "When I know I have done everything in my power for the patient and family, it helps me process the situation better" and "I think about all the positive patient outcomes/miracles I have been a part of in the PICU". Again, additional participant quotes can be found in *Table 3*.

Resilience

A final theme identified by nurses reflected resilience. Resilience is a complex process encompassing optimism, realism, self-efficacy, and sometimes humor, which are all represented in the study data (27). Nurses shared many examples of resilience, such as resilience through self-efficacy, "I don't feel a lot of grief. I put it in aspect that I cherish and appreciate my family". As well as resilience through optimism, "I am lucky to not have to go through the pain and suffering that some of these patients and families go through". Lastly, resilience through realism, "Death is a part of life. A PICU nurse understands that death is a part of the job. Again, it takes a special person to work in the PICU...". Resilience is important to successfully adapt and prosper as a PCC nurse. Please refer to *Table 3* for additional quotes supporting the theme of resilience.

Discussion

Pediatric nurses caring for children who die may experience grief after the death of a patient (20). Reactions to patient death swing along a pendulum that is influenced by many factors. In this qualitative analysis, we aimed to identify unifying themes in the grief reactions of pediatric critical care nurses, to develop a better understanding of the emotional distress experienced by bedside staff amid patient suffering and/or death. Based upon participant responses describing grief and distress after the suffering or death of a patient in the PICU, we identified four major themes, each with associated subthemes; (I) a continuum of emotional responses (limited, transient, and persistent emotional responses), (II) emotional prompts (compounding versus alleviating prompts), (III) coping strategies (compartmentalization, support networks, internal transformation, and validation in good work), and (IV) resilience.

The first theme, continuum of emotional responses, demonstrated the significant variation in the level of emotional impact each nurse experienced after patient death/suffering (28,29). The level of emotional response is dependent upon the nurses' own ability to process the death and grieve (30). Our study described this variation with subthemes that differentiated the temporal impact of emotional responses as limited, transient, or persistent/intrusive. Symptoms of intrusive grief, such as nightmares, repetitive thoughts, or flashbacks, occur when a person's normal flow of thought is interrupted and dominated by unwanted thoughts or images related to a trauma (31). Though intrusions can be difficult to control, they are generally considered to be normal reactions in traumatic experiences, and most weaken and diminish over time (32). Some nurses may experience prolonged intrusions (e.g., "It

is rare for me to have a night where I do not have some sort of dream about work, almost always distressing") that may have an impact on work or sleep. Difficulty processing these intense emotional responses may lead nurses to become disengaged at the bedside, or to attempt to avoid exposure to human suffering (30,33,34).

Emotional prompts were found to either compound or alleviate grief. Relief of patient suffering alleviated nursing grief, while grief was magnified when nurses identified closely with families, had personal relationships with the patient and family, or perceived patient suffering. Personal history and relationships with patients and families lead to a caring bond and stronger attachment, which can exacerbate personal feelings of grief (20,29,33). Families often desire continuity of nursing care from admission to patient death and beyond as a means of support and may feel their child's death was impersonal if too many new staff are present (35). Attempting to provide continuity for the family and patient enhances the nurse-family, nurse-patient relationship. Literature suggests that healthcare professionals experience grief after a patient death in ways that are similar to personal losses (15,20,29). However, a recent NICU nursing study, using the Revised Grief Experience Survey, demonstrated lower levels of grief in bedside nurses when compared to family caregivers (36). In relation to patient suffering, grief may be compounded by feelings of guilt and powerlessness when providing what is perceived as futile care to patients (29,37). Moral distress is a complex concept that occurs when an individual cannot follow through with actions they deem to be moral, which in turn compromises their own professional integrity (38). Unresolved moral distress in nurses is associated with emotional exhaustion and leaving the nursing profession (38). It may also compromise the quality of patient care (38). Alternatively, some nurses feel relief and peace when a terminally ill patient dies (29).

Although coping was not explicitly asked about in the survey, responses to our qualitative question unveiled coping as a theme when participants were asked to describe grief and distress following the suffering or death of a pediatric patient. This may be due to the emotional difficulty associated with coping after death and suffering (39). We further identified 4 subthemes which explained specific coping mechanisms identified within participant responses: compartmentalization, support network, internal transformation, and validation in good work. Compartmentalization or setting boundaries, helps maintain work-life balance (39). Multiple studies identify emotional disassociation as an important coping mechanism to promote longevity in one's nursing career and a method of protecting emotional well-being (4,40). It is not always easy, however, to separate one's professional and personal life. Therefore, a reliable support network of understanding colleagues is important. The healthcare team is viewed as an important resource for management of grief (41). Coworker support can buffer against distress in nurses exposed to adverse events in the NICU, as casual and spontaneous conversations with coworkers provide support and an opportunity to discuss shared experiences with loss (4,40,42). Over time, increased exposure to patient death may require nurses to undergo an internal transformation to decrease distress (43). Some nurses learn how to participate in the dying process without being overly involved emotionally, and they come to expect coping with death as part of the job. However, with repeated deaths, some nurses may become apathetic or complacent toward patient death and suffering, which can negatively affect patient care (2,4). Lastly, coping also occurs through perceived caregiving benefits, or the extent to which providing care is meaningful. This idea was identified as validation in good work. Healthcare workers feel more prepared for a patient death when their provided healthcare is viewed positively (44). Nurses feel privileged and derive meaning from being present with people in their most intimate and vulnerable moments (45). Finding meaning in one's work makes the daily stressors easier to endure and results in positive feelings about work (46). The varied responses in our study illustrate how PICU nurses find different ways of dealing with stressors in the intensive care atmosphere, some which may be more adaptive in the long run than others.

The final identified theme was resilience. Resilience is a multidimensional characteristic reflecting an individual's ability to thrive in the face of adversity (43,47,48). It can be a protective mechanism preventing psychological disorders in healthcare providers exposed to the stressful PICU environment (47), including the suffering and death of pediatric patients (49,50). For example, many health care professionals approach their work with a high degree of commitment and meaning despite high levels of stress (51). More resilient nurses can create personal meaning when circumstances are painful, overwhelming, or unreasonable (49). Resilient nurses in our study found appreciation for life, family, and friends. They acknowledged that death is inevitable and recognized their role in the recovery and healing of other patients who survived. Coping and resilience are psychological

concepts that are often equated with one another, though more recent work has highlighted that these two concepts appear to be distinct (52). Nursing responses in our study that reflected resilience were responses that showed longer term adaptation or recovery from experiences encountered at a child's end of life, while responses that demonstrated various forms of coping more often described actions that nurses utilized at the time, or close to the time, that a child died. Resilience is a quality that individuals can be taught. Bereavement support programs that promote adaptive coping, social connection, mindfulness practice (e.g., self-reflection), and self-awareness are programs that would help staff further develop resilience (53,54).

Our findings must be considered in the context of several limitations. The use of an electronic survey rather than in-person interviews eliminated the opportunity for probing questions prompting additional participant explanation and clarification of responses. Additionally, the effect of possible confounding variables (e.g., sex, gender, race, ethnicity, and years of experience) were not evaluated and may have affected individual grief reactions. Although grief is a universal experience to loss, it is also highly individual or unique to different people, including PCC nurses. Future mixed method research with diverse samples would help to replicate findings.

Conclusions

This study aimed to provide a deeper understanding of the grief experiences of pediatric critical care nurses after patient suffering and/or death. There is universal acknowledgement and a growing acceptance of grief in the nursing profession, but limited research on the experiences of the pediatric critical care nurses. This qualitative study provides a rich, contextualized understanding of PCC nurses' grief experiences. The four themes and underlying subthemes unveiled areas of importance for nurse support programs, such as the necessity to know and recognize maladaptive grief responses, the importance of institutional peer support programs, and the value of teaching resilience amongst PCC nurses.

In conclusion, we found that after experiencing patient suffering and/or death, some PICU nurses reported symptoms consistent with grief and distress (e.g., intrusions), while others reported few, if any, symptoms of grief. The identification of intrusive symptoms of grief in PCC nurses indicates the need to recognize maladaptive emotional responses to loss and ensuring access to professional mental health services. The praise of peer support suggests a need for the development of institutional, structured peer support programs. Psychological and emotional support programs that focus on shared external experiences between staff and families may help staff navigate their grief. Lastly, resilience is a learnable protective mechanism, indicating the value of education in adaptive coping, mindfulness practice and meaning making. Implementing these programs may enhance the well-being and retention of skilled, experienced nurses in the PICU.

Footnote

Reporting Checklist: The authors have completed the SRQR reporting checklist. Available at https://apm.amegroups.com/article/view/10.21037/apm-21-3225/rc

Data Sharing Statement: Available at https://apm.amegroups.com/article/view/10.21037/apm-21-3225/dss

Conflicts of Interest: All authors have completed the ICMJE uniform disclosure form (available at https://apm.amegroups.com/article/view/10.21037/apm-21-3225/coif). KG reports that intramural grant funding for the study was received from The Research Institute at Nationwide Children's Hospital. The other authors have no conflicts of interest to declare.

Ethical Statement: The authors are 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. The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). The study was approved by the Institutional Review Board of Nationwide Children's Hospital (#00000193), which includes ethical approval. Informed consent was obtained by participant decision to complete the electronic survey embedded within the participant information sheet.

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