Exploring the Physician Experience of Death and Non-death loss in the Neonatal Intensive Care Unit

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Background

- Neonatal-perinatal medicine physicians are frequently exposed to neonatal and infant death and morbidity (non-death loss).
- The professional and personal impacts of this repetitive exposure to emotional events remain under explored.
- There are multiple personal and external factors that may modify these experiences.

Objectives

1. To explore NICU physicians' recollections of patient deaths and non-death losses to identify which cases are most likely to cause lasting impact.
2. To investigate how patient deaths and non-death losses affect neonatologists both professionally and personally.
3. To understand what resources and supports neonatologists utilize to cope with patient loss.
4. To assess how each of the above change over the course of a neonatologists' career.

Methods

- This study was approved by the Boston Children's Hospital Institutional Review Board.
- The interview structure was informed by available data and the specific aims. It was piloted on non-study participants and revised.
- Neonatal-perinatal medicine physicians practicing in Massachusetts were recruited via email to participate in Zoom interviews. We recruited in three groups:
    1. Current fellows
    2. ECANs (practicing 0-7 years)
    3. M/LCANs (practicing >7 years)
- Semi-structured Zoom interviews were conducted and transcribed. The transcripts were subsequently cleaned and deidentified.
- Thematic analysis of the transcripts is being performed using NVIVO.

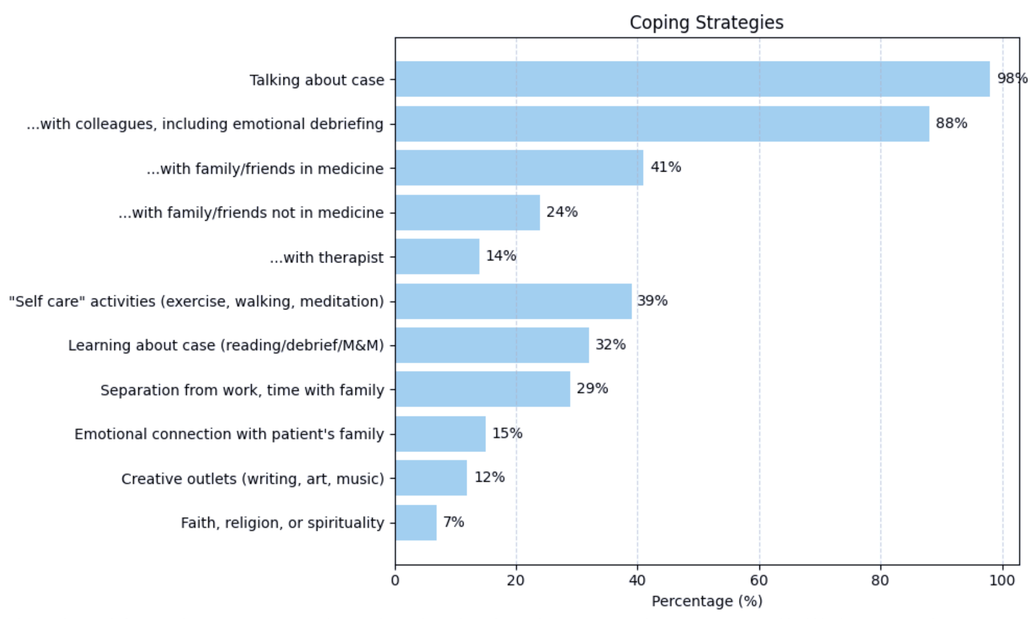
Results

- In a cohort of 41 participants (13 fellows, 14 early-career neonatologists, ECANs, and 14 mid-late career neonatologists, M/LCANs; 80% female; mean age 41 years), emerging themes have been identified.
- The most impactful losses fell largely into three categories – 1. mismatch between outcome and expectations, 2. meaningful patient/family relationships, and 3. weight of responsibility.

Impactful Losses

THEME	SUB-THEME	EXAMPLE QUOTE
MISMATCH BETWEEN OUTCOME AND EXPECTATIONS	For the physician: unexpected, unexplained	*"[The] baby was born. There were no complications. [She] was on CPAP in the NICU, doing well, and then all of a sudden, on day four coded and died… It was very dramatic… Crash blood, fluids, compressions, pressors… Everything was done for this baby, and … [we] couldn't resuscitate."*
	For the family: loss of the dream	*"This is a family that expected two healthy, beautiful girls, and… the thought in their head that one would be sitting… in front of the car, and the other would need a wheelchair… it was not something that they could live with… It's those kinds of … devastating news that… shake family… to their core."*
MEANINGFUL RELATIONSHIP WITH PATIENT/FAMILY	Longstanding	*"I found them to be extraordinary, generous, and kind to their baby, extremely courageous. And it established … a friendship… I remember going to their house when there was the funeral of the baby. And then we still write each other every Christmas for … maybe twenty years or so."*
	Learning experience	*"This family had this beautiful moment all together as a family of four for… the first and last time… That was a really impactful moment for me … I shaped that family's experience… and that brought me meaning."*
	Identification/ countertransference	*"He was just a very sweet baby who would smile at me and laugh with me and was exactly the same age and a really similar temperament to my son."*
WEIGHT OF RESPONSIBILITY	Early/firsts	*"That level of responsibility that you feel as an attending can be really overwhelming, especially as someone… transitioning from fellowship… It was the first experience I had as an attending where… I was the one ultimately in charge."*
	Ethical challenges/ moral distress	*"That was so against my best judgment, principles, beliefs… I cannot stop thinking that I basically killed that baby…"*
	Guilt	*"I will always think that if I would have been there from the beginning on my A game… maybe the outcome would have been different for that full-term baby that didn't deserve to die."*

- The experience of loss may be influenced by factors including career stage, pregnancy or having young children, exhaustion, and workplace culture.
- The types of impactful loss did not vary with career stage, but early experiences were frequently recollected, even among M/LCANs.
- Most participants described maintaining or increasing their optimism about patient outcomes over time. They also viewed prognostic uncertainty as a vehicle for hope and reported that responsibilities related to patient loss improve their sense of professional fulfillment.
- Talking about difficult cases was a nearly universally identified coping mechanism, especially with colleagues or family members/friends who also work in medicine.



- Commonly cited barriers to coping included other work responsibilities and an unsupportive workplace environment.

Discussion & Conclusions

- These findings provide valuable insight into the physician experience of loss in the NICU and suggest multiple future avenues for intervention-minded research.
- Losses that are unexpected or unexplained and those that result in moral distress, guilt, and/or questioning of skills, knowledge, or ability seem most likely to create lasting negative emotions that may impact physician mental health.
- Trainees, new attending physicians, and individuals who are pregnant/expecting or currently have a baby at home may need extra support surrounding patient loss.
- Workplace culture is critical to healthy coping and recovery after experiencing a difficult patient loss. Talking about difficult cases is helpful, but likely only if done in a supportive environment. When these discussions occur in a setting that is blaming or punitive, they can be harmful. There is still much to learn about trauma-informed debriefing.
- A protective mindset occurs when NICU physicians are more optimistic about patient outcomes they may have previously viewed as negative. This facilitates seeing prognostic uncertainty, which is inevitable in our work, in a positive light.
- When NICU physicians feel confident and comfortable in their ability to provide compassionate and effective care and counseling surrounding patient loss, they are able to draw professional fulfillment from such events. This suggests that medical educational initiatives focused on communication in these situations may improve physician wellbeing.

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