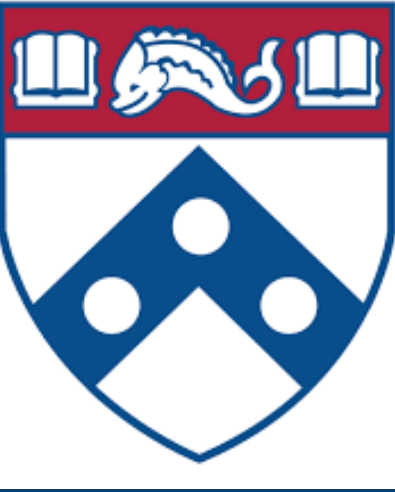




Neo-POPPINS: Neonatal Providers Perceptions of Intubation Study



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Background

- Number of neonatal providers who intubate is increasing.
- Number of neonatal intubation procedures is decreasing.
- Neonatal fellows must achieve procedural competency with limited opportunities.
- The impact of this environment on neonatal fellows' and attendings' intubation perceptions is unknown.

Objective

- To explore neonatal fellows' and attendings' perceptions of and experiences with intubation.

Setting

- Participants recruited from a neonatal division that covers a 38-bed level III NICU and a 100-bed level IV NICU in the United States.

Methods

- Single center qualitative interview study.
- One-on-one semi-structured interviews with 15 fellows and 11 attendings.
- Analysis conducted using Atlas.ti V7 qualitative data analysis software by an experienced qualitative analyst.
- Salient topics and themes generated using constant comparative method.

Results

- Analysis revealed 4 topics and 12 themes.
- Topics: importance of intubation, evolution of relationships with intubation, attending perception of fellow experience, and perspectives on failure.
- Perceived intubation importance differed between fellows and attendings.
- Provider relationships with intubation varied by training level (Table 1).
- Attendings expressed empathy for fellow anxiety and frustration with their preoccupation with intubation.
- Perspectives of failure differed by training level (Table 2).

Discussion

- This study highlights differences in fellow intubation perceptions by training level, suggesting this relationship evolves over time.
- With fewer intubations, educators should incorporate these distinct perceptions, whether they be inexperience, overconfidence, or frustration and doubt, to develop training-level specific intubation curricula.
- Third-year fellows experience fear of failure with complex intubations as they prepare to become attending neonatologists.
- To address third-year fellows' anxiety and offer further insight into becoming attendings, fellowship programs could establish peer mentorship between third-year fellows and junior faculty members.
- Emphasis on intubation supervision for skill maintenance may also allay third-year fellows' concerns.

Results

Table 1: Evolution of Provider Relationships with Intubation

Provider	Theme	Representative Quotation
First-Year Fellow	1.1: Eagerness to Learn	"I am in the very early stages of learning it or haven't learned it because until you do actual intubation it's very hard to say you've learned it...I'm eager to practice as much as possible to become proficient." (F3)
Second-Year Fellow	1.2: Increased Confidence with Intubation	"I felt that this [intubation] was a very skillful, very daunting experience, very daunting procedure, but now I feel like it's something that, you know, I can do." (F11)
Third-Year Fellow	1.3: Frustration with Limited Intubation Opportunities	"So sometimes we have to share intubations. And I don't like sharing the small ones because I still feel like I need to build my skills. And then certainly, like if there's babies with airway anomalies or things that we encounter here, I think those are always, they're just so few and far between, I just haven't had a ton of practice with them." (F8)
Attending	1.4: Maintaining Confidence & Skill through Supervision	"I think because I teach airway management so often and feel so comfortable and confident with my identification of landmarks, it's very easy for me to intubate in general...I've been out of training for a long time, and while we don't intubate all that often, I feel like I intubate enough to keep my skills sharp, and I certainly intubate in the sim lab all the time because I'm back there with the fellows all the time, so I never pass up a chance to just take a quick peek in the airway and intubate myself on the manikins." (A2)

Table 2: Perspectives of Failure

Provider	Theme	Representative Quotation
First-Year Fellow	2.1: Inexperience with Failure	
Second-Year Fellow	2.2: Limited Fear of Failure	"I feel more confident in my skill, more successful intubations I can do, and whenever I miss an intubation, which happens from now then, I certainly – I don't question my core competence, but it does remind me that there's always situations which we can improve our skills." (F15)
Third-Year Fellow	2.3: Fear of Failure with Complex Intubations	[Discussing a failed intubation] "I had never had that much challenge in getting a view. I had also really never been unsuccessful and had then also multiple of my more senior backup people also be unsuccessful. And then seeing [senior attending], who has way more procedural experience than I'll ever have be successful made me worry." (F7)
Attending	2.4: Embracing Failure as Part of Growth Mindset	"I don't think that there's a single person who's ever intubated somebody who hasn't failed, ever, so failure is a part of the learning process." (A11)