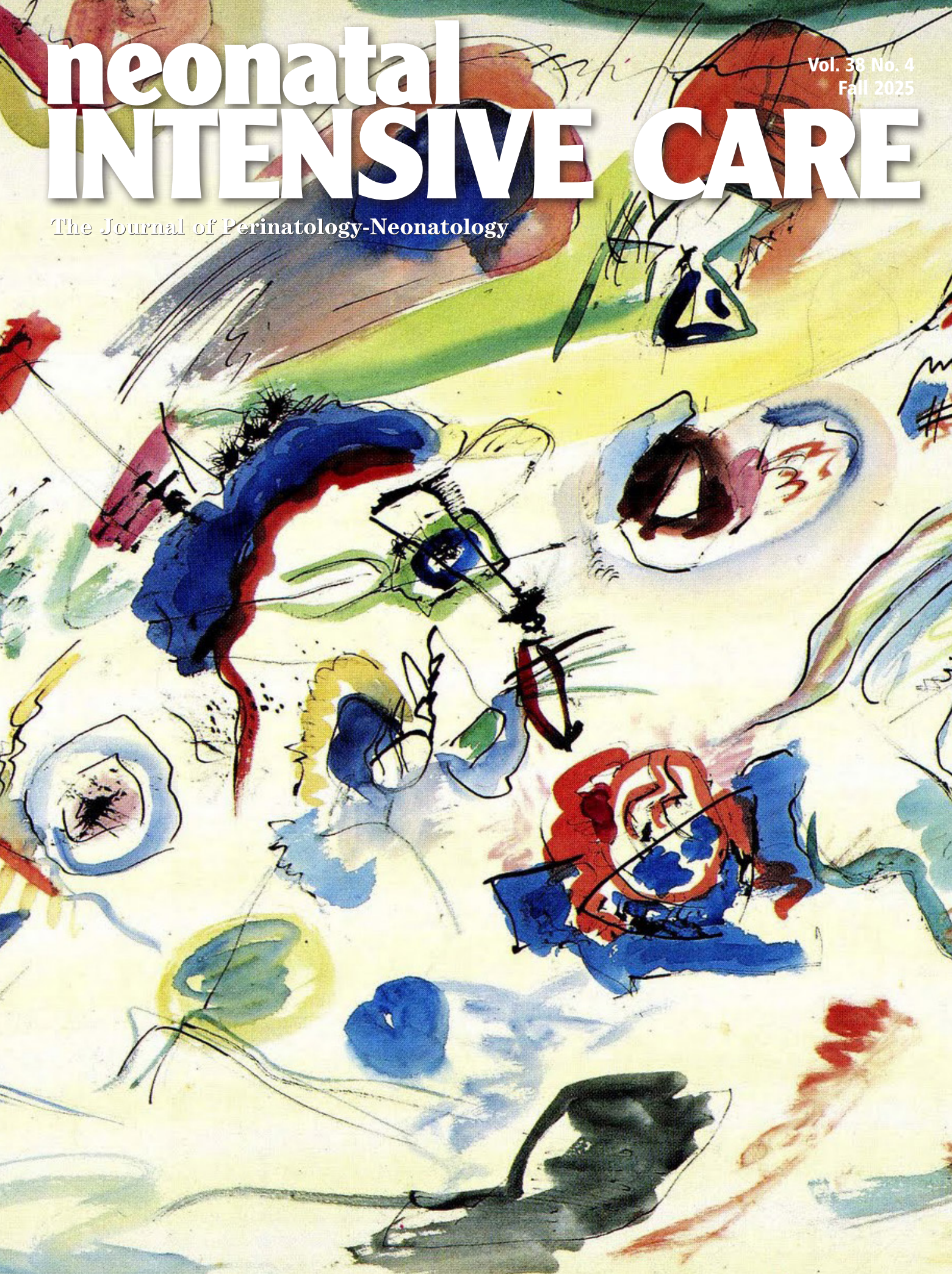


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From Isolation to Inclusion: A Case Study on Transforming Family Engagement and Clinical Connection

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Background: Setting the Stage

Innovations in the Neonatal Intensive Care Unit (NICU) frequently focus on advancing clinical modalities; however, technologies that reshape the lived experience of families have proven equally transformative. Bedside camera systems—once considered luxury adjuncts—are emerging as essential infrastructure for family-centered care. The authors share their unique perspectives—Tara Lyngaas, as a seasoned NICU Manager who led the October 2023 bedside camera rollout at her Level IV NICU, and Jaylee Hilliard, as a former director, two-time NICU mom, and clinical strategist—and a blueprint for elevating family engagement, optimizing staff workflows, and driving measurable gains in satisfaction and discharge readiness.

The Problem: Parent Isolation & Team Limitations

In March of 2021, when Jaylee's first daughter was admitted to the NICU, there were no bedside cameras. This was her first baby—and the harsh reality of the NICU felt nothing like what she had hoped and dreamed motherhood would be. She was trying to stabilize her blood pressure, navigate the anxiety and depression that came during the COVID-19 pandemic, and make sense of the fear and sleep deprivation that blurred those early days. But what took the deepest toll was the feeling that she was abandoning her baby every time she left her child's bedside. The guilt became so overwhelming that she began to dread even visiting, knowing she would have to leave again. Despite being a NICU nurse, the feelings of helplessness and distance were too real; she was unable to fully step into the role of mother.

Before bedside cameras or a digital family engagement solution were available, parents experienced profound isolation and anxiety. Staff had to respond to a high volume of family update requests—reflecting their deep need for connection—which frequently interrupted critical clinical workflows.

The Transformation: A Better Experience for Families and the Care Team

In October 2023, McLane Children's Baylor Scott & White Health implemented comprehensive digital family engagement

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Jaylee Hilliard is the Vice President of Clinical Strategy at AngelEye Health, revolutionizing patient and family support through advanced technology.

“Families wanted updates constantly—and understandably so. We did everything we could, but without visual connection, our best efforts still fell short.”

– NICU Nurse

technology, including secure, live-streaming video, HIPAA-compliant one-way photo/video/text messaging, and automated family education. With that one change, when Jaylee's second daughter was admitted to the same NICU, everything felt different. This time, she received photos and video updates from the care team, as well as educational content that supported the child's care journey and helped prepare Jaylee for her baby's discharge. Most importantly, the constant connection allowed Jaylee to see her fragile infant whenever she couldn't be there in person. She never felt like she had to say “goodbye.” That ongoing visual connection—whether from the hospital bed, home, or anywhere in between—gave her peace of mind, allowing Jaylee to remain present, even when not at the bedside. It didn't erase the fear or uncertainty, but it transformed how she experienced them; she could stay connected, informed, and engaged as her new infant's mom—something she didn't realize was missing until she finally had it.

With the new technology, parents reported feeling continuously connected—no longer compelled to say “goodbye”—and staff feedback reflected an increase in perceived trust and communication efficiency between parents and the care team, enabling nurses to devote even more attention to direct patient care.

By the following year, the NICU leadership team had captured ongoing, real-time feedback by utilizing AngelEye's built-in survey module, which automatically sends brief questionnaires to families at key points during their stay (e.g., admission, every 4–10 days thereafter). Any family indicating their needs are not being met triggers a follow-up, often an in-person check-in by leadership or bedside staff. This just-in-time approach replaced the previous manual rounding process, boosting response reliability and enabling proactive interventions at the first sign of concern.

Figure A. Implementation Approach - A four-phase rollout to ensure staff adoption, optimize workflows, and capture early wins.

Phase 1: Camera Installation, Privacy Protocols & Expectation Setting	
<p>OBJECTIVE</p> <p>Introduce bedside cameras while establishing privacy safeguards and crystal-clear family expectations.</p>	<p>ACTIVITIES</p> <ul style="list-style-type: none"> • Family Orientation - at admission (or camera “go live” day), every family receives a concise, multilingual “How-To” overview • Staff participate in hands-on role-play workshops using a unified script they helped develop within their shared governance councils. • Staff scripts at the bedside and in the patient admission packet ensure every team member delivers the same message at the bedside. • Installed cameras at every bedside in our open unit, paying special attention to where they were mounted to ensure they could easily be paused during cares/procedures with a digital “Your baby is receiving care” display. • Implemented roaming in-services to meet staff where they were and educate them on HIPAA compliance, camera operation, and compassionate communication. • Leaders integrated daily camera checks during daily rounds to ensure proper use and protocol adherence.
Phase 2: Digital Education Automation	
<p>OBJECTIVE</p> <p>Streamline family orientation, discharge teaching, and resource distribution via the platform’s education system.</p>	<p>ACTIVITIES</p> <ul style="list-style-type: none"> • Updated and uploaded unit-specific education and local resources • Activated educational content was made available through the platform after it was reviewed and vetted • Set up automated content to be “pushed” to families and noted which content was recommended versus required
Phase 3: One-Way Messaging & Engagement Incentives	
<p>OBJECTIVE</p> <p>Deepen family connection through secure, one-way photo, video, and text messaging.</p>	<p>ACTIVITIES</p> <ul style="list-style-type: none"> • Rolled out one-way messaging to nurses, physicians, and allied-health staff (lactation consultants, social workers). • Launched the “Care Connection Challenge” – a monthly contest recognizing the teams sending the most updates (milestones, general updates, educational reminders). • Collected feedback during daily huddles to refine message templates and streamline workflows.
Phase 4: Digital Rounding & Feedback Surveys	
<p>OBJECTIVE</p> <p>Capture real-time family experience and identify families in need of extra support.</p>	<p>ACTIVITIES</p> <ul style="list-style-type: none"> • Automated family-experience surveys to all families • Defined a “Rapid Response Rounding” protocol: any family identified as less than satisfied triggered a personalized follow-up visit or call. • Integrated survey analytics into weekly leadership dashboards to track trends and spotlight areas for improvement.

Charting the Course: Implementation Journey (Methodology)

Under Tara Lyngaas's direction, the Level IV NICU implemented a four-phase rollout, each phase lasting approximately three months (see *Figure A: Implementation Approach*). The staged approach allowed clinicians to master a small, clearly defined set of tasks before progressing, kept the workload manageable, and created early "wins" that the team could celebrate.

To verify that bedside-camera adoption produced measurable benefits, the evaluation team tracked four indicators—patient-family satisfaction, staff engagement, feeding outcomes, and operational efficiency—using each metric's pre-rollout benchmark (e.g., FY 2023 Press Ganey scores, May 2023 pulse-survey results) and then pulling the same data at regular intervals from automated dashboards, in-app micro-surveys, and EHR exports. Any time a metric stalled or trended unfavorably for two consecutive reporting cycles, a rapid-response quality-improvement huddle was triggered to identify the barrier and adjust workflows before the next review period.

Barriers to improvement were flagged whenever a metric plateaued for two successive data pulls or trended opposite to target. The quality-improvement (QI) council then:

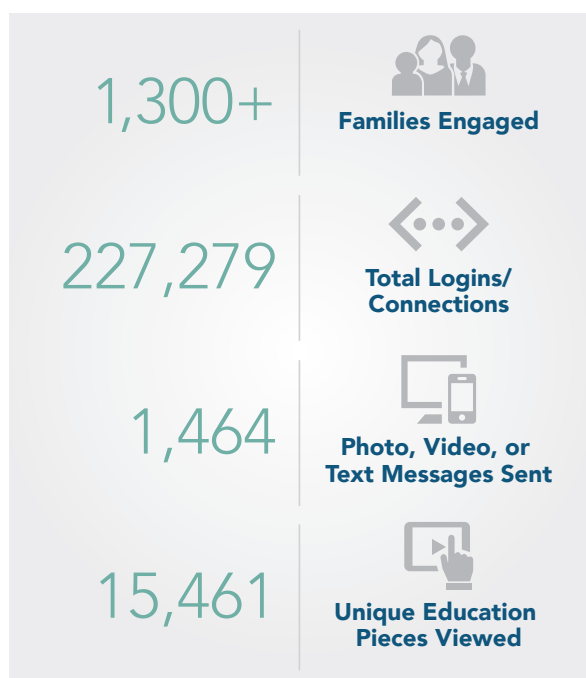
1. **Reviewed raw data** within seven days.
2. **Performed root-cause mini-huddles** with bedside teams.
3. **Issued countermeasures** (e.g., refresher huddles, workflow tweaks) logged in the QI tracker.

This continuous feedback loop ensured the rollout remained data-driven while still responsive to frontline realities—ultimately linking bedside-camera adoption to measurable gains in satisfaction, engagement, feeding success, and efficiency.

The Results: Platform Utilization & Digital Resource Engagement

Utilization Metrics

Since launching in November 2023, this Level IV NICU has embraced AngelEye Health's platform with remarkable



“Technology alone didn’t transform our unit; purposeful use with compassion and transparency did.”

— Tara Lyngaas

engagement from both families and staff. Over 1,300 families have actively used the system, generating more than 227,000 secure logins between July and May (a period of 10 months)—evidence of a consistent, ongoing connection. The live-streaming feature alone has delivered over 1,770 hours of viewing time, allowing parents to remain visually connected to their infants even when they can’t be at the bedside. Staff have also contributed meaningfully to family engagement, sending more than 1,460 secure one-way messages—photos, videos, and texts—to keep parents informed and emotionally supported throughout their NICU journey.

Families viewed 15,461 unique pieces of on-demand content—from high-impact topics like Infant Choking First Aid (1,775 views), Coping With Crying at Home (1,629), and Infant CPR (1,316) to diagnosis overviews, formula-mixing instructions, procedural guides, and competency checklists for G-Button and NG-tube care. Available in multiple languages, this digital library eliminated the time staff spent searching for paper handouts, printing materials, and coordinating interpreter services. Interpreter-mediated teaching sessions declined, and overall discharge-teaching time was noticeably reduced, freeing nurses for direct patient care and hands-on family instruction, while families maximized their precious in-unit time with their infants.

High usage across streaming, messaging, on-demand education, and embedded family surveys demonstrates that both families and staff have fully integrated AngelEye into their daily routines. These multiple touchpoints—visual connection, digital resources, just-in-time updates, and rapid feedback loops—directly supported the gains in patient satisfaction, staff engagement, feeding outcomes, and operational efficiency detailed above.

The Outcomes

The results described reflect a collection of quality-improvement efforts that align closely with the phased rollout and demonstrate that the AngelEye Health platform was a significant enabler.

Patient & Family Satisfaction

+6%

During FY 2024, the NICU modestly exceeded its Press Ganey patient and family satisfaction target of 79.7, achieving a score of 80.6. In FY 2025, satisfaction continued to climb, surpassing the goal of 80.7 and reaching 85.8. This sharp upward trajectory coincided with the phased rollout of the AngelEye digital engagement platform, suggesting that continuous video access, on-demand education, and real-time feedback loops made a meaningful contribution to families’ overall experience.

In addition to continuous video access and digital updates, leaders utilized AngelEye’s built-in survey feature, which

captured real-time family feedback (even from off-site locations) for rapid intervention. At the same time, app-based education freed parents to spend more meaningful time at the bedside, together driving scores above target.

Staff Engagement

+11%

Between May 2023 and December 2024, staff engagement scores rose steadily, up 3% from May to December 2023, followed by an additional 4% increase over the next five months. By December 2024, the increase in satisfaction scores rose by over 11 percent during the 18-month period surveyed. According to the NICU’s pulse surveys, this upward trend was driven in large part by improved work–life balance, a reduction in on-shift workload, and the streamlined communication and education workflows enabled by the AngelEye platform. These tools provided nurses and providers with the time and confidence to focus on patient care, thereby reinforcing overall engagement and job satisfaction.

Staff surveys indicated that improved work–life balance, reduced in-shift workload, and having dedicated tools to streamline communication and education were key drivers of this engagement boost.

Mom’s Own Milk at Discharge

+6%

Mother’s own milk at discharge rose from 61% (CY 2023) to 67% (CY 2024). This improvement was supported not only by reinstating three full-time NICU lactation consultants in December 2024 but also by the use of AngelEye’s secure messaging to confirm lactation consults, provide words of encouragement, and share targeted educational content. Of particular help was the platform’s digital education modules on the importance of providing breastmilk, as well as real-time video streaming, which allows mothers to see their infants during pumping sessions, encouraging additional nighttime pumping.

Parent Engagement

Discharge Teaching Time

Nurses observed that parents engaged in caregiving tasks (feeding and hands-on care) sooner and with greater confidence. Parents who consistently used the AngelEye app for educational purposes and discharge preparation felt more prepared when taking their baby home.

It is important to note that while broader initiatives (workflow standardization, nursing incentives for morale, and lactation program enhancements) contributed to these improvements, the

timing, survey insights, and qualitative feedback strongly indicate that the AngelEye digital engagement platform was a significant catalyst for these outcomes.

Qualitative Findings

Methods

During the process, the NICU leadership team wanted to monitor not just the hard numbers, but what mattered to staff. To capture frontline clinician perspectives, a digital SurveyMonkey questionnaire was sent to all NICU staff in June 2025, with reminders sent over a 72-hour window to encourage rapid completion. A total of 47 team members (approximately one-third of the total staff) responded, providing timely and representative feedback across both day and night shifts. See Figures B and C.

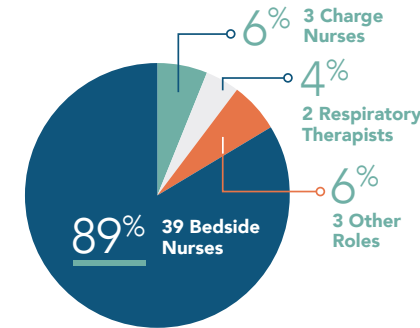


Figure B. Staff Role Breakdown.

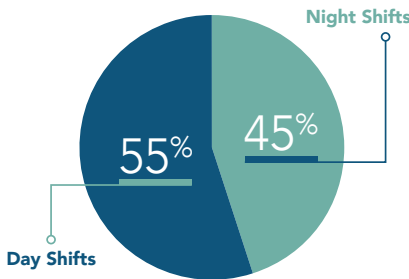


Figure C. Shift Distribution.

The balanced shifts and predominance of bedside nurses demonstrate that the survey primarily captures direct caregiving experiences, with input from leadership and ancillary staff supplementing our thematic analysis and grounding key takeaways in representative team feedback.

Qualitative Feedback

The NICU’s clinical team reports that AngelEye solutions contributed substantially to improved communication and engagement:

- **Efficient Updates:** Fellows and attendings provide daily digital updates, ensuring consistency even when in-person contact is limited.
- **Capturing Milestones:** Staff record holiday events, milestones, and other memorable moments when families are unable to be present.
- **Digital Education Impact:** On-demand, multilingual modules empower families to learn at their own pace.
- **Proactive Support:** Survey data guide targeted follow-up with families who were not present during daily patient and family experience rounds.
- **Staff Morale:** “Care Connection” contests and positive feedback reinforced a culture of pride and connection.

Overcoming Resistance & Building Trust

Initial staff concerns regarding bedside cameras—ranging from privacy to potential workflow disruptions—were real and valid. Some feared added responsibilities; others worried about constant observation. Addressing these head-on through transparency, workflow alignment, and consistent messaging was essential.

Within just 4–6 weeks, the tone of the unit started to shift. “Once nurses were more comfortable with their workflow and realized how engaged and happy the parents were with being able to see their baby from home, they became advocates,” Tara shared. Today, the cameras are embraced as an integral part of the NICU’s family-centered care model, not an add-on.

Thematic Insights

Staff Perspectives were organized by theme and each paired with a key takeaway to illustrate frontline impact.

Equity & Access Initiatives

Ensuring equitable access to family engagement tools was a guiding principle from day one. The leadership team made a conscious decision to remove barriers—technological, linguistic, and logistical—so that all families, regardless of background or circumstance, could experience the connection, peace of mind, and empowerment the CameraSystem provides.

- Embedded CameraSystem orientation into admission workflows

“Once nurses were more comfortable with their workflow and realized how engaged and happy the parents were with being able to see their baby from home, they became advocates.”

– Tara Lyngaas

- Provided multilingual quick-start guides for families
- Delivered content at a 5th-grade literacy level, translated into more than 70 languages through the AngelEye platform
- Bridged transportation and access barriers that many families face during their NICU journey with the camera technology, ensuring that all parents can stay connected to their infant.

Conclusion: Toward a Smarter, Integrated Future

Tara shared one last thought for her colleagues – “Our experience confirms that bedside camera systems are foundational to modern NICU care. A phased, staff-centered implementation—prioritizing privacy, equity, and engagement—yields measurable improvements in family satisfaction, staff morale, and clinical readiness. We encourage other units to adapt this blueprint to their workflows, thereby redefining the NICU journey and strengthening support for families from admission through discharge and beyond.”

1. Emotional Well-Being & Anxiety Reduction

“I have seen parents who would have otherwise been unable to physically leave the bedside...be able to go home and get some much-needed rest.”

KEY TAKEAWAY

Real-time video access meaningfully reduces separation anxiety and supports parental rest and maternal recovery—even overnight.

2. Enhanced Family Connection & Inclusion

“I had a family that was able to show off their baby to grandparents who were out of the country.”

KEY TAKEAWAY

Multi-user access enables parents to include friends, family, and distant relatives in their baby’s care journey, bolstering emotional support networks

3. Maternal Support & Milk-Production Benefits

“A mom told me that her milk supply increased once she was able to visualize baby while pumping.”

KEY TAKEAWAY

Maintaining visual contact during pumping sessions can enhance lactation confidence and increase milk output.

4. Trust-Building Through Transparent Communication

“Parents love getting pictures and videos of their babies. They love the little updates and I think it gives them peace of mind when they can’t be here.”

KEY TAKEAWAY

One-way messaging and milestone snapshots promote unit transparency, foster stronger parent–caregiver relationships, and support the development of parental trust in the care team – a challenging outcome to achieve.

“We insisted this be a standard offering—not a privilege—so every family reaps the benefits.”

—Tara Lyngaas

By uniting technology with compassion, this Level IV NICU has redefined family engagement as a core pillar of neonatal care. The leadership team invites other units to adopt the four-phase blueprint and join them in making every NICU a place of connection—until no family ever has to say ‘goodbye’ again.

As a next step in expanding family-centered care for their NICU, Tara and her team are particularly excited about the upcoming implementation of NICU2Home, AngelEye’s evidence-based NICU navigation and discharge coordination solution, which will further streamline staff workflows and unlock additional time savings by bringing discharge planning and education into a single, user-friendly interface. NICU2Home enables intelligent, automated assignment of tailored educational modules and features a visual discharge roadmap—empowering parents to take the lead on preparation and transition home while ensuring clinical teams maintain full oversight.

AngelEye Health’s strategic integration of AI across the platform—from predictive alerts to advanced analytics in the CameraSystem and NICU2Home—will surface real-time clinical insights that bolster care team decisions, strengthen family engagement, and ultimately drive improved patient outcomes throughout the NICU-to-home continuum.

By placing families at the heart of every decision—and equipping staff with tools that inspire trust, efficiency, and equity—this NICU has not only reimagined the care journey from admission to discharge, but has created a model for the future of neonatal care: connected, compassionate, and powered by purpose-built technology.

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