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Examining the Economic Impact of Surgeon Communication in Neonatal Surgery

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ABSTRACT

This exploratory study, conducted at the Neonatal Surgical Unit of the University of Calabar Teaching Hospital (UCTH) over a period of months, investigated the relationship between surgeon communication, parental satisfaction, and potential economic implications in neonatal surgery. Utilizing a mixed-methods approach, the study enrolled 25 parents of infants undergoing surgery and four neonatal surgeons. Data was collected through parental surveys (assessing communication style, satisfaction, and likelihood to recommend the hospital), chart reviews (surgical complexity and outcomes), and surgeon interviews (perspectives on communication). Quantitative analysis revealed a strong positive correlation between surgeon communication scores and parental satisfaction (Spearman's rho = 0.78, $p < 0.01$), and between parental satisfaction and likelihood to recommend UCTH (Spearman's rho = 0.85, $p < 0.01$). While directly quantifying cost savings proved challenging due to the study's scope, qualitative data and complaint records suggested a potential link between effective communication, reduced complaints, and improved hospital reputation. The findings emphasize the critical role of surgeon communication in enhancing parental satisfaction and influencing hospital performance indicators, ultimately suggesting a tangible economic impact through patient referrals and reduced negative feedback. Investing in communication training for surgeons can improve hospital performance.

Keywords: *Neonatal Surgery, Surgeon Communication, Parental Satisfaction, Hospital Performance, Economic Impact, Healthcare, Patient Experience, Quality Improvement*

1. INTRODUCTION

Neonatal surgery stands as a particularly delicate and demanding field within surgical practice. Beyond the expected high level of technical expertise required to operate on the smallest, most vulnerable patients, neonatal surgeons face the constant emotional weight of treating infants and interacting with their anxious, often overwhelmed families. While surgical acumen remains the cornerstone of successful outcomes, the influence of effective communication between surgeons and parents is now widely acknowledged as a crucial, and often underestimated, component of the patient experience. This communication acts as the foundation upon which trust is built, anxieties are addressed, realistic expectations are established, and ultimately, parental satisfaction is achieved (Epstein & Street, 2007). The uncertainty inherent in neonatal surgery necessitates a particularly sensitive and transparent approach to communication, enabling parents to participate actively in decision-making and feel supported throughout the entire perioperative process.

In today's healthcare landscape, where patient-centered care and value-based purchasing models are gaining increasing prominence, the quality of patient-provider interactions is no longer a secondary consideration. Understanding the profound impact of surgeon communication skills on measurable patient outcomes and overall hospital performance is therefore paramount. Poor communication can lead to misunderstandings, dissatisfaction, reduced adherence to treatment plans, and even increased litigation risk. Conversely, excellent communication can improve parental understanding of the infant's condition and treatment plan, enhance their sense of control and empowerment, and foster a stronger therapeutic alliance.

This study is designed to rigorously investigate the correlation between the specific communication skills exhibited by neonatal surgeons and the level of satisfaction reported by parents in the particularly stressful and emotionally charged environment of neonatal surgery. We aim to identify key communication behaviors and strategies that are associated with improved parental satisfaction scores. Furthermore, we will explore the potential economic implications of these surgeon-parent interactions. By examining the relationship between effective communication and factors such as length of stay, readmission rates, and patient referrals, we hope to provide evidence-based insights that can inform targeted interventions to improve surgeon communication skills, enhance the patient experience, and ultimately contribute to improved clinical and economic outcomes in neonatal surgery. The findings of this research will not only benefit individual surgeons and their patients but will also offer valuable guidance for hospital administrators and policymakers seeking to optimize the delivery of neonatal surgical care.

Justification:

The justification for this study stems from the confluence of two key trends in modern healthcare: the growing emphasis on patient-centered care and the increasing influence of patient satisfaction on hospital reimbursement and reputation.

First, patient-centered care prioritizes the patient's (or in this case, the parents' as proxies) values, preferences, and needs in all aspects of care (Institute of Medicine, 2001). Open, honest, and empathetic communication is fundamental to this model. In neonatal surgery, where parents are often grappling with immense anxiety and uncertainty regarding their child's health, the surgeon's ability to communicate effectively can significantly influence their emotional well-being and their perception of the care provided. Research has consistently shown that strong communication, characterized by empathy, clarity, and active listening, is associated with increased patient trust, reduced anxiety, and improved adherence to treatment plans (Street, 2003).

Second, patient satisfaction is increasingly tied to economic incentives for hospitals. The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey, for example, is a standardized assessment tool used to measure patients' perspectives on hospital care. HCAHPS scores directly impact hospital reimbursement rates from governmental payers like Medicare and Medicaid, as well as influencing patients' choice of hospital via online reviews and word-of-mouth (Centers for Medicare & Medicaid Services, n.d.). A hospital with high patient satisfaction scores is more likely to attract new patients, retain existing ones, and secure favorable reimbursement rates, ultimately leading to improved financial performance (Berry & Seiders, 2008).

The intersection of communication and economics becomes particularly relevant in the context of neonatal surgery. Given the emotional intensity and potential for long-term, complex care, parental satisfaction in this setting can have a particularly strong impact on hospital reputation and, consequently, financial stability. Imagine a scenario where two hospitals offer comparable surgical outcomes for a specific neonatal condition. However, at Hospital A, surgeons consistently demonstrate excellent communication skills, proactively addressing parental concerns, explaining complex medical information in an understandable manner, and fostering a sense of partnership. At Hospital B, communication is more perfunctory, leaving parents feeling uninformed and anxious. In the long run, Hospital A is likely to attract more patients, receive more positive reviews, and ultimately, secure a stronger financial position due to its commitment to effective communication.

Beyond direct reimbursement, strong communication can also impact costs associated with litigation. Poor communication can lead to misunderstandings, unmet expectations, and ultimately, increased risk of malpractice claims (Levinson et al., 1997). By investing in communication training for surgeons and prioritizing clear and empathetic interactions, hospitals can potentially mitigate these risks and reduce legal expenses.

Research Questions

To guide our investigation, we propose the following research questions:

1. To what extent does surgeon communication style (e.g., empathy, clarity, responsiveness) correlate with parental satisfaction scores in neonatal surgical settings?
2. What is the association between parental satisfaction following neonatal surgery and hospital HCAHPS scores, controlling for other relevant factors (e.g., surgical outcomes, hospital size)?
3. Does improved surgeon communication training for neonatal surgeons lead to a measurable reduction in hospital costs related to patient complaints and/or malpractice claims?

2. LITERATURE REVIEW

This literature review dissects several key concepts relevant to the relationship between surgeon communication, parental satisfaction, and economic implications in neonatal surgery.

Patient-Centered Communication: Patient-centered care has emerged as a guiding principle in contemporary healthcare, emphasizing the unique needs and preferences of each individual (Institute of Medicine, 2001). This approach recognizes that patients are active participants in their own care and that their perspectives, values, and beliefs should be central to the decision-making process. Moving beyond a purely biomedical model, patient-centered care seeks to understand the holistic context of a patient's illness, encompassing not only the physical symptoms but also the emotional, social, and psychological impact on their life.

A foundational element of patient-centered care lies in effective communication, as highlighted by Roter and Hall (2006). Their model emphasizes the importance of exploring both the patient's disease experience—the symptoms they are experiencing and how these symptoms impact their daily life—along with their feelings, beliefs, and expectations regarding their health. As Street et al. (2009) found, when healthcare providers actively solicit and validate patient perspectives, patients report higher levels of satisfaction and adherence to treatment plans. Further, understanding these two aspects of a patient's experience provides critical context for tailoring treatment plans and fostering a collaborative relationship.

Crucially, effective communication in a patient-centered model necessitates active listening, empathy, and shared decision-making (Epstein & Street, 2007). Active listening involves paying close attention to both verbal and nonverbal cues, demonstrating genuine interest in the patient's concerns. Empathy requires the healthcare provider to understand and acknowledge the patient's emotional experience, creating a safe and supportive environment. Shared decision-making, in turn, involves the healthcare provider and the patient working together to develop a treatment plan that aligns with the patient's values, preferences, and goals.

In practice, this means that a surgeon, for example, would actively solicit input from parents regarding their concerns, beliefs about treatment options, and priorities for their child's care. Instead of simply presenting a pre-determined treatment plan, the surgeon would engage in an open dialogue, exploring the potential benefits and risks of different approaches, and collaboratively crafting a plan that reflects the family's unique circumstances and values. This collaborative approach not only empowers patients and enhances their satisfaction but can also improve treatment outcomes by fostering greater

adherence and engagement.

The Need For Empathy in Healthcare: Empathy, the cornerstone of meaningful connection, is the capacity to comprehend and resonate with the emotions experienced by another. According to Riess (2017), this ability to understand and share feelings is a crucial component of effective communication. In the context of healthcare, empathy transcends simple courtesy; it becomes a powerful tool for building trust and rapport, particularly when dealing with vulnerable populations. As highlighted by Halpern (2003), empathy is not simply feeling *for* someone, but understanding *with* them, acknowledging their lived experience and emotional state.

Research increasingly emphasizes the profound impact of empathy in surgeon-patient (or parent) interactions. Studies have shown that surgeons who demonstrate empathy are better able to establish a strong connection with parents, fostering a sense of trust and reducing anxiety during what is often a highly stressful time. As reported by Derksen et al. (2013), empathetic communication can significantly alleviate parental concerns and promote a collaborative approach to care. According to Berg, and colleagues (2011) surgeons who display empathy build stronger rapport with parents, fostering trust and reducing anxiety.

Furthermore, a growing body of evidence suggests a positive correlation between surgeon empathy and parental satisfaction. When parents feel understood and supported, they are more likely to be satisfied with the care their child receives and, consequently, more likely to adhere to treatment plans and follow medical advice. A study by Kelley and Kraft (2012) revealed that parents perceive surgeons who demonstrate empathy as more competent and trustworthy, leading to increased confidence in their decisions. Reiterated this position when he said; "Surgeons who demonstrate empathy have the ability to increase a parents confidence. These doctors are also more trustworthy as they are more understanding"

This is especially paramount in high-stress environments such as neonatal surgery, where parents are facing immense emotional challenges. The ability of a surgeon to communicate with empathy can make a significant difference in the parents' experience and ultimately contribute to improved outcomes for the child. By actively listening, acknowledging their concerns, and providing compassionate support, surgeons can empower parents to be active participants in their child's care, leading to a more positive and effective treatment journey (Sinclair et al., 2017).

Clarity and Transparency: Communicating complex medical information effectively is paramount, especially in the sensitive field of neonatal surgery, where parents are frequently confronted with unfamiliar medical concepts and terminology (Butow et al., 2019). These parents, often lacking extensive medical backgrounds, rely heavily on the surgeon's ability to translate intricate details into accessible language. A critical element involves actively avoiding medical jargon and instead employing plain language to describe the surgical procedure, potential complications, and anticipated outcomes. The goal is to ensure that parents fully grasp the implications of each decision point in their child's care.

To empower parents in navigating these challenging circumstances, surgeons must prioritize transparent and comprehensive communication. This includes providing clear explanations of potential surgical risks, anticipated benefits, and viable alternative treatment options. Research consistently indicates that shared decision-making, fostered through open dialogue, leads to improved patient satisfaction and adherence to treatment plans (Epstein & Street, 2007). When parents feel informed and understood, they are more likely to actively participate in the care of their child, contributing to enhanced outcomes (Rosenbaum et al., 2015).

Ultimately, clear and transparent communication serves as a cornerstone for mitigating misunderstandings and fostering trust between the surgical team and the family. By taking the time to patiently address parental concerns, clarify uncertainties, and provide ongoing support, surgeons can cultivate a strong therapeutic alliance. This collaborative approach enhances the overall care experience, promoting a sense of confidence and partnership during a stressful and emotionally charged time for families facing neonatal surgery.

Impact on Patient Satisfaction (and Proxies): Parental satisfaction serves as a pivotal indicator of quality within the healthcare landscape, exerting a significant influence on various aspects such as a hospital's reputation, patient retention rates, and ultimately, financial reimbursements (Berry & Seiders, 2008). These satisfied parents are more inclined to advocate for the hospital by recommending it to their social circles, leaving positive reviews on online platforms, and diligently adhering to the prescribed treatment plans for their children (Manary et al., 2014). These behaviors collectively contribute to an overall improvement in the hospital's performance metrics. Conversely, parental dissatisfaction can trigger a cascade of negative consequences, including unfavorable publicity that can deter potential patients, a decline in patient volume, and an elevated risk of legal actions against the healthcare facility (Hertzog et al., 2018).

The direct correlation between patient perspectives and hospital finances is exemplified by the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey. While widely used, it is important to acknowledge the survey's primary focus on adult patient satisfaction. Therefore, in cases where the primary focus is on the satisfaction levels of pediatric patients and their families, employing alternative survey instruments designed specifically for children may prove more beneficial (Boudreaux et al., 2015). These child-centered surveys often incorporate age-appropriate language and address concerns relevant to the pediatric population, providing a more accurate assessment of the child's healthcare

experience.

Improving parental satisfaction requires a multi-faceted approach. Effective communication between healthcare providers and parents is paramount, ensuring that parents are well-informed about their child's condition, treatment options, and potential outcomes (Street et al., 2009). This open dialogue helps build trust and fosters a collaborative environment. Furthermore, addressing the emotional needs of both the child and the parents is crucial, especially during stressful medical situations. Providing support services, such as counseling or family support groups, can help alleviate anxiety and improve the overall healthcare experience.

Therefore, prioritizing parental satisfaction is not simply a matter of improving a hospital's bottom line; it is an ethical imperative. By actively listening to parental concerns, addressing their needs, and striving to provide the best possible care for their children, healthcare organizations can create a positive and supportive environment that benefits both patients and their families. This commitment to excellence not only enhances the hospital's reputation but also strengthens its position as a trusted and valued member of the community.

The Need For Communication Training for Surgeons: Communication skills are often perceived as inherent traits, but research consistently demonstrates that they are, in fact, learnable and improvable through focused training interventions (Epstein & Street, 2007; Hargie, 2011). These programs offer a structured approach to developing essential communication competencies. Effective communication training typically incorporates elements such as active listening exercises, where participants learn to fully engage with and understand the speaker's message (Rogers & Farson, 1957). Empathy-building activities are also crucial, enabling individuals to better perceive and respond to the emotional states of others, fostering stronger connections (Riess, 2017). Furthermore, these programs often address techniques for clear and concise articulation, as well as strategies for navigating challenging dialogues constructively.

The benefits of targeted communication training extend across various professional domains, including the medical field. Studies have specifically investigated the impact of communication training on surgeons, yielding compelling evidence of its effectiveness. For example, research by Stewart et al. (1999) showed that communication skills training for surgeons led to significant improvements in patient satisfaction scores. Beyond patient perception, improved communication has been linked to tangible health outcomes. A study by Rosenbaum et al. (2010) found that surgeons who underwent communication training reported reduced patient anxiety levels and demonstrated improvements in overall patient recovery rates following surgery.

These improvements stemming from communication training are likely due to multiple factors. Clear and compassionate communication can alleviate patient fears and uncertainties, fostering a sense of trust and collaboration (Street, 2003). By actively listening to patient concerns and demonstrating empathy, surgeons can better understand individual needs and tailor treatment plans accordingly (Epstein et al., 2005). Ultimately, enhanced communication contributes to a more positive and supportive patient-physician relationship, which is a crucial element in promoting optimal health outcomes.

Economic Implications of Communication: The economic impact of surgeon communication is a multifaceted issue that stretches far beyond the immediate realm of direct reimbursement. As highlighted by Levinson et al. (1997), effective communication serves as a potent tool in risk management, particularly in mitigating the likelihood of costly malpractice claims. Surgeons who prioritize clear, empathetic, and proactive communication strategies cultivate a stronger sense of trust with their patients. This trust, in turn, allows for more realistic expectation management and provides avenues to address patient concerns before they escalate into formal complaints or legal action. By preemptively addressing anxieties and fostering a transparent dialogue, surgeons can significantly reduce the potential for misunderstandings that often fuel patient dissatisfaction and subsequent litigation (Vincent et al., 1994).

Conversely, inadequate or deficient communication can have significant adverse financial consequences for both surgeons and healthcare institutions. Poor communication often leads to patient dissatisfaction, unmet expectations, and, consequently, an increased susceptibility to litigation. Studies have shown a direct correlation between communication failures and malpractice claims, with communication breakdowns frequently cited as a contributing factor in medical negligence cases (Beckman et al., 1994). The resultant litigation costs, including legal fees, settlements, and potential damage awards, can be substantial, placing a significant strain on a hospital's financial resources (Gallagher et al., 2003). Furthermore, negative patient experiences stemming from poor communication can damage a hospital's reputation, leading to decreased patient volume and further economic losses (Hickson et al., 1992).

Therefore, investing in comprehensive communication training programs for surgeons represents a strategic financial decision. By equipping surgeons with the skills and knowledge to engage in clear, empathetic, and patient-centered interactions, healthcare institutions can potentially mitigate the risks associated with poor communication and enhance their overall financial stability (Roter et al., 1997). Prioritizing communication proficiency not only fosters stronger patient-physician relationships and improves patient satisfaction but also contributes to a safer, more efficient, and financially sound healthcare environment. A proactive approach to communication, acknowledging its economic implications, is essential for optimizing patient care and safeguarding the financial well-being of healthcare organizations.

3. METHODOLOGY

This exploratory study was conducted at the Neonatal Surgical Unit of the University of Calabar Teaching Hospital (UCTH) between February, 2024 and May, 2025. The study employed a mixed-methods approach, primarily quantitative with qualitative elements to explore the nuanced impact of communication.

Participants: A convenience sample of 25 parents of infants who underwent surgical procedures within the unit during the study period was recruited. Inclusion criteria included parents or legal guardians of infants aged 0-28 days who underwent non-emergency reconstructive or corrective surgery and were able to provide informed consent. Parents of infants with critical, life-limiting diagnoses or those who did not speak English were excluded to minimize confounds related to palliative care discussions or language barriers. Four neonatal surgeons providing care in the unit during the study period also participated by providing general feedback on communication training and perceived impacts.

Data Collection: Data were collected through several means:

1. **Parental Survey:** A structured questionnaire was administered to participating parents 7-10 days post-surgery, either in person during follow-up visits or via phone. The survey included sections on:
    - Surgeon communication style (assessed using a 5-point Likert scale (1=Poor, 5=Excellent) across dimensions like clarity of explanation, empathy, time spent answering questions, active listening, and honesty). A composite "Communication Score" was calculated.
    - Parental satisfaction with the overall surgical care experience (assessed using a 5-point Likert scale, 1=Very Dissatisfied, 5=Very Satisfied).
    - Likelihood to recommend UCTH for neonatal surgery (assessed using a 5-point Likert scale, 1=Very Unlikely, 5=Very Likely), serving as a proxy for HCAHPS-like metrics relevant to local context.
    - Demographic information (parent age, infant age, gender).
2. **Chart Review:** Limited data on surgical procedure complexity (categorized as Low, Medium, High based on duration and post-operative care requirements) and surgical outcomes (successful vs. requiring immediate re-intervention within the study period) were extracted from medical charts for the 25 cases.
3. **Surgeon Feedback:** Brief, semi-structured interviews were conducted with the four participating surgeons to gather their perspectives on the importance of communication, any prior communication training, and their *perceptions* regarding how effective communication might influence parent complaints or other hospital costs.

Data Analysis: Quantitative data from parent surveys and chart reviews were entered into a spreadsheet for analysis. Descriptive statistics (means, standard deviations, frequencies) were calculated. Correlation analysis (Spearman's rho due to the ordinal nature of the scale data and small sample size) was used to explore the relationship between composite Communication Score and Parental Satisfaction (RQ1), and Parental Satisfaction and Likelihood to Recommend (RQ2). The association between satisfaction and likelihood to recommend was further examined by stratifying by surgical complexity. For RQ3, the analysis focused on qualitative feedback from surgeons and a simple frequency count of reported instances of parental complaints related to communication issues noted in the medical charts or reported by surgeons during the study period (although formal complaint data tracking was limited and not available for a historical comparison within this study's scope).

4. RESULTS

A total of 25 parent participants were included in the final analysis. The infants' ages at surgery ranged from 3 to 25 days (mean 11.5 days). Surgical complexity broke down as 8 cases (32%) low, 11 cases (44%) medium, and 6 cases (24%) high. All 25 surgical outcomes within the study period were initially successful, requiring no immediate re-operation during the follow-up window. Four neonatal surgeons were involved, with participant cases distributed among them (Surgeon A=8, Surgeon B=7, Surgeon C=6, Surgeon D=4).

Research Question 1: Correlation between Surgeon Communication Style and Parental Satisfaction

Analysis of the survey data revealed a strong positive correlation between the composite Surgeon Communication Score and Parental Satisfaction Score. Parents who rated their surgeon's communication highly consistently reported higher overall satisfaction with the care received.

Table 1: Correlation Matrix (N=25)

Variable	Communication Score	Parental Satisfaction	Likelihood to Recommend
Communication Score	1.00	0.78*	0.65*
Parental Satisfaction	0.78*	1.00	0.85*
Likelihood to Recommend	0.65*	0.85*	1.00

** $p < 0.01$ (Spearman's rho)*

As shown in Table 1, the Spearman correlation coefficient between Communication Score and Parental Satisfaction was 0.78, indicating a very strong positive relationship ($p<0.01$). This finding strongly suggested that effective communication by the surgeon was a key driver of parental satisfaction in this setting.

Research Question 2: Association between Parental Satisfaction and Hospital Performance Indicator (Likelihood to Recommend)

The study found a very strong positive association between Parental Satisfaction and their Likelihood to Recommend UCTH for neonatal surgery (Spearman's rho = 0.85, $p<0.01$), also shown in Table 1. This suggested that satisfied parents were highly likely to speak positively about their experience and recommend the hospital to others.

When examining this relationship considering surgical complexity, high satisfaction scores and high likelihood to recommend scores were observed across all complexity levels when communication scores were also high. While the small sample size limited rigorous statistical control, the qualitative feedback from parents indicated that clear communication and empathetic support *regardless* of the outcome or complexity significantly shaped their positive perception and willingness to recommend. For instance, parents of infants with high complexity procedures often expressed profound gratitude for surgeons who took extra time to explain risks and potential long-term challenges with empathy, even if the journey was difficult.

Table 2: Average Scores by Surgical Complexity Level

Complexity Level	Average Communication Score (1-5)	Average Parental Satisfaction (1-5)	Average Likelihood to Recommend (1-5)	Number of Cases
Low	4.2	4.4	4.5	8
Medium	3.8	4.0	4.1	11
High	3.5	3.8	3.9	6
Overall	**3.9**	**4.1**	**4.2**	**25**

Table 2 illustrates that while average scores were slightly lower for higher complexity cases (perhaps reflecting the inherent stress), the patterns of correlation within each group generally mirrored the overall findings, and scores remained relatively high overall, particularly when communication was perceived as good.

Research Question 3: Potential Link to Hospital Costs (Complaints/Malpractice)

Formal, objective data on the economic impact of communication, such as direct cost savings from reduced complaints or

malpractice suits, were challenging to quantify within the scope and sample size of this short study. However, the study explored potential indicators:

- **Parental Complaints:** During the study period, only one instance of a formal parental complaint specifically citing poor communication as a primary issue was recorded among the 25 cases. This parent's communication score rating for their surgeon was 2 (Poor), and their overall satisfaction was 1 (Very Dissatisfied). In contrast, cases with communication scores of 4 or 5 had no recorded complaints.
- **Surgeon Perspectives:** Interviews with the four surgeons revealed a shared understanding of the importance of communication. They anecdotally reported that taking extra time to communicate clearly and address concerns proactively often diffused potential tensions and complaints. While none could provide specific data on cost savings, they generally perceived that good communication reduced instances of demanding or confrontational interactions and built trust that could potentially mitigate the risk of future disputes, although they did not specifically link this to malpractice claims within this discussion.

Given the small sample size (N=25) and the limited timeframe, a definitive economic impact could not be statistically proven. However, the strong observed link between poor communication and the single recorded complaint strongly suggested that communication breakdowns could be a significant driver of patient dissatisfaction leading to formal grievances, which carry administrative costs and negatively impact reputation.

Table 3: Relationship Between Communication Score and Reported Complaints (N=25)

Communication Score Range	Number of Cases	Cases with Reported Complaint
1-2 (Poor/Fair)	3	1
3 (Average)	5	0
4-5 (Good/Excellent)	17	0
Total	**25**	**1**

Table 3 shows that the single complaint reported during the study period originated from a case where the communication score was in the "Poor/Fair" range, suggesting a potential association.

5. DISCUSSION

The findings from this small study at UCTH Calabar strongly supported the premise that effective surgeon communication was profoundly linked to parental satisfaction in the high-stress environment of neonatal surgery. The robust positive correlation between communication scores and both parental satisfaction and likelihood to recommend highlights the human element of care and its direct impact on how families perceived the hospital.

While quantifying the precise economic impact within this study's limitations was challenging, the data suggested a plausible link between communication effectiveness and potential cost drivers. High parental satisfaction, fueled by good communication, translated directly into a greater likelihood of positive word-of-mouth and recommendations, which are invaluable for a hospital's reputation and future patient volume – essentially, its marketing and recruitment efforts at minimal cost. Conversely, poor communication appeared linked to at least one documented complaint, underscoring its potential role in generating administrative burden, potential legal risks, and negative impacts on reputation, all of which carry economic costs.

The study's small sample size limited the generalizability of the findings and the ability to perform rigorous statistical controls or longitudinal cost tracking. However, the consistency of the correlations observed in this specific population and setting provided valuable preliminary evidence.

Conclusion:

This study at UCTH Calabar demonstrated a clear and significant correlation between effective surgeon communication and

parental satisfaction in the context of neonatal surgery. High levels of parental satisfaction were, in turn, strongly associated with a greater likelihood of recommending the hospital. Although direct economic impacts in terms of cost reduction were difficult to quantify definitively within this small-scale study, the findings suggested a potential link between poor communication and formal complaints, highlighting the potential for communication breakdowns to incur economic costs through administrative processes and reputational damage, while effective communication built goodwill and positive reputation. Ultimately, the study underscored that beyond surgical skill, the human aspects of care, particularly empathetic and clear communication, were paramount for patient experience and likely contribute positively to a hospital's operational and financial health.

6. RECOMMENDATIONS

Based on the findings of this study, the following recommendations are proposed for UCTH and similar neonatal surgical units:

1. **Implement Formal Communication Skills Training:** Develop and implement structured communication skills training programs for surgeons, focusing on clarity of explanation, empathy, active listening, and honesty. These programs should be tailored to the specific challenges of communicating with parents in the high-stress context of neonatal surgery, including communicating risks, managing expectations, and providing emotional support.
2. **Track Communication-Related Feedback:** Establish a system to systematically track and analyze parental feedback related to surgeon communication. This could include incorporating relevant questions into post-surgery satisfaction surveys and implementing a structured process for documenting and addressing parental complaints related to communication.
3. **Promote a Culture of Communication:** Foster a hospital culture that prioritizes and values effective communication between surgeons, patients, and families. This could involve incorporating communication skills into performance evaluations, recognizing and rewarding surgeons who demonstrate excellent communication skills, and creating opportunities for surgeons to share best practices in communication.
4. **Investigate Cost-Effectiveness of Communication Training:** Conduct a more in-depth study to quantify the economic impact of communication training on hospital costs. This could involve tracking metrics such as the number of formal complaints, the incidence of malpractice claims, and the hospital's reputation scores before and after the implementation of communication training programs.

Tailor Communication Strategies to Surgical Complexity: Develop communication strategies specifically tailored to different levels of surgical complexity. Recognize that parents of infants undergoing complex surgeries may require more detailed explanations, more frequent communication, and more emotional support.

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