

Analyzing the Influence of Digital Media on the Perceived Urgency of Neonatal Surgical Conditions Among Parents

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ABSTRACT

This study examines the impact of digital media exposure on parental perceptions of neonatal surgical conditions and decision-making behaviours. A sample of 168 parents from GMC Jammu Hospital and Sikims Hospital, Kashmir, completed a structured questionnaire assessing media consumption patterns and healthcare-related decisions. Pearson's correlation coefficient was applied to analyze the relationships between digital media exposure, urgency perceptions, and decision-making behaviors. The results revealed a significant positive correlation between exposure to neonatal surgery-related media content and heightened perceptions of urgency ($r = 0.992$), as well as a strong influence of media frequency and content type (e.g., expert-driven and emotional content) on parental decision-making. These findings feature the critical role of digital media in shaping healthcare perceptions, highlighting the importance of expert-led, emotionally balanced content in neonatal health education.

Keywords: Digital Media, Parental Perceptions, Neonatal Surgery, Decision-Making, Pearson's Correlation

1. INTRODUCTION

The advent of digital media has transformed how individuals access, share, and interpret health-related information. Platforms such as social media, health blogs, and online forums have become indispensable sources of medical knowledge, shaping public perceptions and influencing decision-making processes in healthcare (Anderson & Jiang, 2018). This paradigm shift is particularly significant for parents of newborns who face critical medical decisions, such as those related to neonatal surgical conditions. These conditions, often life-threatening, require timely intervention and informed decision-making, making the accuracy and impact of digital media on perceived urgency a crucial area of study.

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Despite the extensive integration of digital media into modern life, little research has been conducted to investigate its influence on parental perceptions and healthcare behaviors specifically related to neonatal surgery. Existing studies primarily focus on the general role of digital media in healthcare awareness (Cline & Haynes, 2001) or on its impact on chronic diseases (Alhousseini et al., 2021; Merolli et al., 2013; Patel et al., 2015 ; Pousti et al., 2014). However, the intersection of digital media consumption and neonatal surgical care remains underexplored. This research seeks to fill this gap by examining the correlation between digital media exposure and the perceived urgency of neonatal surgical conditions among new parents.

The novelty of this study lies in its focus on the nuanced relationship between digital media and parental perceptions in the context of neonatal health—a field where timely action can have life-altering consequences. By employing Pearson correlation analysis, this research aims to quantify the strength of this relationship, offering actionable insights into how digital media influences healthcare decisions. These findings are expected to inform healthcare providers and policymakers about the role of digital media in shaping public perceptions, thereby enhancing educational campaigns and intervention strategies.

This research is critical as it addresses a growing reliance on digital media for health information, particularly among younger, tech-savvy parents. Understanding the impact of this reliance will not only provide clarity on its influence on parental perceptions but also highlight areas where digital media can be leveraged to improve neonatal healthcare outcomes.

2. OBJECTIVES

- To evaluate the correlation between digital media exposure and the perceived urgency of neonatal surgical conditions.
- To assess the influence of the frequency and type of digital media consumption on parental decision-making related to neonatal healthcare.

3. METHODOLOGY

3.1 Research Design

This study employed a quantitative, correlational research design to examine the relationship between digital media exposure and the perceived urgency of neonatal surgical conditions among parents. The study aimed to quantify the influence of digital media consumption patterns on parental perceptions and decision-making behaviors in the context of neonatal healthcare.

3.2 Sample

The sample for this study consisted of 168 parents of newborns, randomly selected from two pediatric hospitals: Government Medical College Jammu Hospital, and Sikims Hospital, Kashmir. Initially, a total of 188 questionnaires were distributed to the participants. However, after conducting a thorough data cleaning process, 168 complete and valid responses were retained for analysis. Incomplete or incorrectly filled questionnaires were excluded from the final dataset to ensure the accuracy and integrity of the results.

3.3 Data Collection

A structured questionnaire was developed to gather data on various aspects of digital media exposure, parental perceptions of neonatal surgical conditions, and decision-making behaviours. The questionnaire comprised multiple sections:

Demographic Information: This section collected details such as the age of the parents, educational background, and number of children.

Digital Media Exposure: Participants were asked about their frequency of consuming health-related content, particularly neonatal surgery information, and the types of media they engaged with (e.g., expert-led content, emotional narratives, helpful videos, and online health advice).

Perceived Urgency: Questions were designed to assess how urgently parents perceived neonatal surgical conditions after exposure to relevant digital media.

Decision-Making: This section explored the influence of digital media on parents' likelihood of seeking medical consultation and acting upon the information gathered online.

Informed consent was obtained from all participants before they completed the questionnaire. Ethical guidelines were rigorously followed throughout the study, ensuring confidentiality and voluntary participation. Participants were assured that their responses would be used solely for academic purposes.

3.4 Data Cleaning

After the questionnaires were collected, a data cleaning process was undertaken. This involved reviewing all responses to ensure completeness and consistency. Any incomplete or incorrectly filled-out questionnaires were excluded from the final analysis, resulting in a total of 168 valid questionnaires.

3.5 Statistical Analysis

The data were analyzed using Pearson’s correlation coefficient to examine the strength and direction of the relationships between digital media exposure, parental perceptions of urgency, and decision-making behaviors. Pearson’s correlation was chosen due to its suitability in measuring linear relationships between continuous variables the test were performed using Excel 2024

3.6 Two primary hypotheses were tested

Hypothesis 1: There is a significant positive correlation between digital media exposure and parental perceptions of the urgency of neonatal surgical conditions.

Hypothesis 2: The frequency and type of digital media consumption significantly influence parental decision-making in neonatal healthcare.

For both hypotheses, correlation coefficients were calculated to determine the strength of the relationships between the variables. A significance level of $p < 0.05$ was set for all statistical tests.

3.7 Data Interpretation and Discussion

The data interpretation for this study highlights the influence of digital media exposure on parental perceptions of urgency in neonatal surgical conditions and their decision-making behaviours. Results from both tables reveal significant correlations between digital media usage patterns and parental responses, demonstrating that the type and frequency of media consumption play a critical role in shaping perceptions and actions related to neonatal health.

Table 1: Correlation Between Digital Media Exposure and Perceived Urgency of Neonatal Surgical Conditions

Column1	Health Content Consumption	Reliance on Neonatal Health Info	Neonatal Surgery Content Frequency	Perceived Urgency of Surgery	Likelihood of Medical Consultation
Health Content Consumption	1				
Reliance on Neonatal Health Info	0.999302797	1			
Neonatal Surgery Content Frequency	0.997788208	0.997061828	1		
Perceived Urgency of Surgery	0.985877566	0.981147928	0.992278179	1	
Likelihood of Medical Consultation	0.985957922	0.990963364	0.979125543	0.946824862	1

Hypothesis 1 Result: Accepted

The correlation analysis in Table 1 demonstrates a highly significant positive relationship between digital media exposure and the perceived urgency of neonatal surgical conditions. Strong correlations (e.g., 0.992 between content frequency and urgency perception) indicate that greater exposure to neonatal surgery-related media content is linked to higher parental urgency perceptions.

Table 2: Correlation Between Media Consumption Patterns and Decision-Making Behaviors

Column1	Seek-Online-Advice	Engage-Expert-Content	Helpful-Videos	Impact-Emotional-Content
Seek-Online-Advice	1			
Engage-Expert-Content	0.937214134	1		
Helpful-Videos	0.989740713	0.96031698	1	
Impact-Emotional-	0.964934069	0.970475604	0.967356902	1

Content	0.959321299	0.989208108	0.974654293	0.993999803
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Hypothesis 2 Result: Accepted

Table 2 demonstrates significant correlations between the frequency and type of digital media consumption and decision-making behaviours. For example, the correlation between emotional content and helpful videos (0.967) and the strong relationship between seeking online advice and engaging in expert-led content (0.937) confirm the substantial influence of digital media consumption on healthcare decisions.

4. DISCUSSION

In both tables, the high correlation coefficients (above 0.9) validate the hypotheses, showing that digital media significantly influences perceptions and decision-making in neonatal healthcare.

The findings collectively affirm the two research objectives. Objective 1 is fulfilled through the evidence that digital media exposure is positively correlated with parental urgency perceptions. Objective 2 is met by demonstrating the significant impact of media consumption frequency and content type on parental decision-making.

These results align with prior research, such as studies highlighting the influence of digital media on healthcare decisions (Laranjo et al., 2015) and those exploring the emotional impact of health-related media content (Vahabi, 2007). For instance, Vahabi, (2007) study identified that emotionally engaging media content shapes individuals’ perceptions of medical conditions, mirroring the findings here. Similarly, Laranjo et al., (2015) found that expert-led content enhances trust and drives healthcare-seeking behaviors, supporting the observed correlation between expert content engagement and decision-making.

Digital media represents a transformative conduit through which health information is disseminated, consumed, and internalized. Its ubiquity and accessibility empower parents to engage with a plethora of content, ranging from professionally curated advice to emotionally resonant patient testimonials. This democratization of health information enables parents to gain unprecedented insights into neonatal healthcare issues, fostering a more informed and engaged approach to medical decision-making. However, it also imposes significant challenges, particularly in discerning credible information from the vast influx of unverified and potentially misleading content.

One of the most salient attributes of digital media is its ability to personalize content delivery. Algorithm-driven platforms can tailor health information to align with individual preferences and concerns, thus amplifying its relevance and immediacy. For neonatal healthcare, this personalization could serve as a double-edged sword—on the one hand, it ensures that parents receive pertinent information, but on the other, it risks reinforcing anxiety through the overrepresentation of critical cases. Emotional storytelling, while effective in capturing attention and eliciting empathy, can inadvertently amplify parental stress and urgency perceptions if not counterbalanced by factual, evidence-based information.

4.1 Implications for Healthcare Providers and Policy

The implications of these findings are manifold and extend across the domains of clinical practice, public health policy, and digital health strategy. First, healthcare professionals may actively participate in digital media ecosystems to assert their role as authoritative sources of information. By leveraging social media platforms and other digital channels, they can counter misinformation, disseminate evidence-based guidance, and provide reassurance to parents navigating complex medical decisions.

Second, the findings feature the importance of curating emotionally balanced and actionable digital media content. While emotionally charged narratives are effective in engaging audiences, they must be accompanied by clear, factual information to avoid exacerbating parental anxiety. Policymakers and content creators must collaborate to establish guidelines for responsible health communication in digital spaces, ensuring that content adheres to ethical and professional standards.

Third, the role of expert-led digital media is highlighted as a cornerstone of trust-building in healthcare interactions. Parents are more likely to act on information presented by medical professionals than by unverified sources. As such, efforts to amplify the visibility of credible, expert-led content should be prioritized. This includes initiatives to certify and promote healthcare providers who utilize digital media to educate the public.

The findings of this study extend beyond the immediate context of neonatal healthcare, offering insights into the broader role of digital media in influencing health behaviors. The correlations observed suggest that digital platforms can serve as powerful tools for health promotion and education when harnessed effectively. Future research should explore innovative strategies to optimize digital media for health communication, such as interactive content, virtual consultations, and artificial intelligence-driven health assistants.

Moreover, the relationship between digital media exposure and parental decision-making highlights the need for a nuanced

understanding of the psychosocial factors that mediate this relationship. Further studies could investigate how variables such as socioeconomic status, digital literacy, and cultural attitudes toward healthcare modulate the impact of digital media.

This study underscores the transformative potential of digital media in shaping perceptions and decision-making in neonatal healthcare. The strong correlations observed reaffirm the necessity of leveraging this medium to guide parents toward informed and balanced healthcare decisions. By addressing the challenges and harnessing the opportunities presented by digital media, healthcare providers, policymakers, and researchers can collectively contribute to enhancing health outcomes for neonates and their families.

5. CONCLUSION

This investigation accentuates the profound influence exerted by digital media in sculpting parental cognitions and decision-making paradigms within the realm of neonatal healthcare. The empirical evidence elucidates a robust and statistically significant positive correlation between digital media exposure and the heightened urgency attributed by parents to neonatal surgical conditions. Moreover, the findings reveal that the frequency of digital media engagement and the specific nature of the consumed content—particularly expert-driven and emotionally resonant material—serve as critical determinants of parental decision-making processes. These observations substantiate the hypotheses, illustrating that digital media transcends its informational role to actively mold parental responses in high-stakes healthcare scenarios, thereby underscoring its pivotal role in mediating perceptions and actions within this sensitive domain.

5.1 Key Findings

- Digital media exposure correlates strongly with heightened urgency perceptions among parents regarding neonatal surgical conditions.
- The frequency of media consumption and engagement with specific content types—such as expert-led and emotionally charged material—significantly influence healthcare decision-making.

5.2 Limitations

While this research offers valuable insights, it has limitations. The sample size, though adequate, may not capture the diversity of parental demographics and media consumption behaviours across regions or cultures. Furthermore, the study relies on self-reported data, which may introduce biases such as overestimation or underestimation of media consumption.

5.3 Future Recommendations

1. **Broader Demographic Studies:** Future research should include larger and more diverse samples to generalize findings across different populations and cultural contexts.
2. **Longitudinal Research:** Investigating the long-term effects of digital media exposure on healthcare decision-making could provide deeper insights into its impact.
3. **Intervention Development:** Studies should focus on designing and testing digital media interventions, such as educational campaigns or mobile applications, to optimize parental decision-making in neonatal healthcare.
4. **Content Analysis:** Analyzing the quality and reliability of neonatal health-related digital media content can guide efforts to combat misinformation.

This research delineates the transformative capacity of digital media within the context of neonatal healthcare, providing profound insights for healthcare practitioners, policymakers, and architects of digital content. By harnessing the dissemination of authoritative, empirically grounded, and emotionally calibrated digital material, stakeholders are poised to mitigate the chasm between the proliferation of online information and the exigencies of informed clinical decision-making. Such strategic utilization of digital platforms has the potential to substantially enhance healthcare outcomes for neonates while simultaneously fostering a more nuanced and effective engagement with their families.

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