

Pediatric Nurses' Experiences of Disclosing Medical Errors to Families: A Phenomenological Inquiry

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Abstract

Background: Medical errors in pediatric settings have profound implications for patient safety and healthcare professionals' psychological well-being. However, little is known about how pediatric nurses in low- and middle-income countries experience disclosing errors to families. This study explored the lived experiences of pediatric nurses in Urmia, Iran, regarding medical error disclosure to families.

Methods: A descriptive phenomenological study employing Colaizzi's seven-step method was conducted. Sixteen pediatric nurses from tertiary teaching hospitals in Urmia, Iran, participated in semi-structured interviews between March and September 2025. Participants had at least one year of pediatric experience and self-reported involvement in a medical error within the prior 24 months. Data analysis followed phenomenological procedures, with trustworthiness ensured through Lincoln and Guba's criteria.

Results: Four main themes emerged: (1) "The Weight of the Unspoken"—embodied moral distress and fear of family response; (2) "Walking a Tightrope Without a Net"—navigating hierarchical constraints (physician gatekeeping) and institutional silence (absence of disclosure policies); (3) "The Moment of Truth"—disclosure encounters as turning points, with healing disclosure contrasting with nondisclosure regret; (4) "Carrying It Home"—enduring psychological consequences including intrusive memories, hypervigilance, and absence of organizational aftercare. Negative cases demonstrated that supportive environments enabled successful disclosure. Negative-case analysis demonstrated that supportive physician-nurse collaboration and visible administrative backing enabled successful disclosure among three participants, thereby complicating the dominant narrative of inevitable nondisclosure.

Conclusions: Within this sample of 16 Iranian pediatric nurses, error disclosure is experienced as an intensely distressing phenomenon shaped by fear of family betrayal, hierarchical physician control, policy absence, and lack of aftercare. The findings suggest an urgent need for culturally tailored disclosure protocols, communication training, and second-victim aftercare in this context.

Key Words: Disclosure, Medical errors, Patient safety, Pediatric nursing, Phenomenology.

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1- INTRODUCTION

Medical errors represent a significant global challenge to patient safety, with pediatric populations being particularly vulnerable due to their physiological immaturity, reliance on caregivers, and often complex medication dosing (1). While substantial progress has been made in error prevention strategies, the post-error behavior of healthcare professionals specifically, the act of disclosing the error to the patient and family remains a critical yet understudied component of safe and transparent care (2). For nurses, who are at the frontline of continuous bedside care, the moments following a medical error are fraught with moral, professional, and emotional tension. In pediatric settings, this tension is magnified, as the nurse must not only confront their own distress but also navigate the heightened anxiety and protective instincts of parents or guardians (3).

Disclosure of medical errors is widely endorsed by professional codes of ethics and patient safety frameworks as a cornerstone of honesty, accountability, and patient-centered care. However, evidence suggests that full and timely disclosure remains inconsistent globally (4). Barriers such as fear of litigation, professional shame, lack of institutional support, and uncertainty about how to communicate bad news often lead to partial disclosure or nondisclosure (5). In pediatric nursing, these barriers intersect with unique ethical imperatives: the dual responsibility to the child and the family, the potential for long-term developmental consequences of errors, and the imperative to preserve the therapeutic trust relationship that is foundational to pediatric care (6).

Despite growing research on error disclosure in high-income Western healthcare systems, there is a marked paucity of studies exploring this phenomenon in low- and middle-income

countries, and particularly within the sociocultural context of Iran. The Iranian healthcare system, with its strong emphasis on familial involvement in caregiving and a deeply rooted cultural value of preserving dignity (ehteram) (7), presents a distinct environment where disclosure practices may be shaped by non-Western ethical priorities, legal frameworks, and hierarchical medical structures (8). In the Urmia region, which is characterized by a multicultural population including Azerbaijani and Kurdish communities, family dynamics and communication norms further influence how difficult medical information is shared.

To date, no published phenomenological study has specifically investigated the lived experiences of pediatric nurses in Iran regarding the disclosure of medical errors to families. Quantitative surveys may identify rates of disclosure, but they cannot capture the essence of the nurse's experience: the moral distress, the fear, the moments of courage, or the silence following an error (9). Therefore, this study aims to explore, describe, and interpret the lived experiences of pediatric nurses in Urmia, Iran, concerning their practices of disclosing medical errors to families.

The primary research question guiding this inquiry was: What are the lived experiences of pediatric nurses in Urmia, Iran, regarding the disclosure of medical errors to families? The sub-questions were: (a) What emotional, cognitive, and embodied responses do pediatric nurses experience before, during, and after error disclosure or nondisclosure? and (b) What organizational, interpersonal, and cultural factors shape pediatric nurses' disclosure decisions and their psychological aftermath?

2- MATERIALS AND METHODS

2-1. Study Design and Setting

This qualitative study employed a descriptive phenomenological approach inspired by Husserl's transcendental phenomenology to explore the lived experiences of pediatric nurses in disclosing medical errors to families. Phenomenology was chosen because it seeks to uncover the essence of experiences without presuppositions, making it ideal for examining a sensitive, morally charged phenomenon such as error disclosure (9). The study is reported in accordance with the COREQ (Consolidated Criteria for Reporting Qualitative Research) checklist (10).

The study was conducted in the pediatric wards of two tertiary teaching hospitals affiliated with Urmia University of Medical Sciences, Urmia, Iran, between October 2025 and March 2026. These hospitals provide acute and chronic pediatric care, including medical-surgical units, intensive care, and oncology services, and have formal incident reporting systems. However, no structured error disclosure protocol existed at the time of the study. Pediatric nurses in this context face unique challenges, including hierarchical physician-nurse dynamics, family-centered decision-making norms, and medico-legal ambiguity regarding disclosure of harm to families. Understanding nurses' firsthand experiences is essential for developing culturally sensitive, institutionally feasible disclosure guidelines.

2-2. Participants and Sampling

Participants were registered nurses working in pediatric inpatient units with at least one year of experience directly caring for children (age ≤ 18 years) and their families. Inclusion criteria were: (a) current employment in a pediatric ward, (b) at least one year of pediatric nursing experience, (c) self-reported involvement in at least one medical error (ranging from near-miss to adverse event) involving a pediatric patient in the past 24 months, (d)

an active role in communicating with families during or after the error, and (e) willingness to reflect on the experience.

Exclusion criteria were: (a) temporary or agency nursing staff, (b) nurses on extended leave (>3 months) during the study period, (c) nurses with fewer than three months in their current unit, (d) involvement in an error that was subject to active legal investigation, and (e) self-reported severe psychological distress related to the error at the time of recruitment (with referral to hospital counseling services offered). Two nurses were excluded and referred to counseling services based on this criterion.

Purposive sampling was used initially to identify nurses who had directly experienced error disclosure. Specifically, the first author approached potential participants face-to-face during shift handoffs in each participating unit, briefly explained the study, and invited those who met inclusion criteria to participate. Of 22 nurses approached, 16 agreed to participate (72.7% response rate). Of the six who declined, reasons included: lack of time ($n=3$), discomfort discussing the error ($n=2$), and imminent shift change ($n=1$).

Maximum variation sampling was then applied to capture diverse perspectives based on years of pediatric experience, type of error (medication, procedural, diagnostic), severity of harm (no harm, temporary harm, permanent harm), unit type (general ward, ICU, oncology), and prior formal training in disclosure or error communication.

Data saturation in this phenomenological study was defined not mechanically, but as the point at which interpretive depth and richness were achieved specifically, when no new meaning units or themes emerged from three consecutive interviews, and when the research team reached consensus that the essential structure of the phenomenon was sufficiently described to

capture both commonalities and variations. Saturation was assessed through ongoing team discussion after each interview, with systematic comparison of newly identified meaning units and attention to whether new interpretations challenged or refined existing themes. Formal saturation was declared at interview 14, with two additional interviews (n=16 total) confirming theme structure and producing no novel experiential variations.

2-3. Data Collection

Semi-structured, face-to-face individual interviews were conducted in a private consultation room within each hospital, separate from clinical areas and scheduled during non-peak hours (mid-morning or early afternoon). None of the interviewers had prior acquaintance with participants before study enrollment. All interviews were conducted solely by the first author, a male PhD in nursing with 5 years of clinical nursing experience in pediatric settings and training in qualitative methods and no supervisory or evaluative authority over any participant. The first author explicitly stated at the beginning of each interview that participation was voluntary, had no connection to performance evaluations, and that all identifying information would be removed.

An interview guide (Table 1) was developed based on a literature review of medical error disclosure in nursing, phenomenological studies on clinician

experiences of error, and existing disclosure frameworks (e.g., IOM's "To Err is Human"). The guide was piloted with two pediatric nurses not involved in the study and revised for clarity and emotional safety.

Interviews typically began with a broad opening question about the participant's general experience in pediatric nursing, followed by a transition to the error disclosure experience. Probing questions were used flexibly to explore emotional responses (e.g., "Can you tell me more about what that felt like physically?"), decision-making processes (e.g., "What went through your mind when you decided whether to tell the family?"), and contextual factors (e.g., "Was there anyone else in the room?"). When participants showed signs of emotional distress such as crying, long pauses, or a lowered voice, the interviewer paused, offered tissues, provided reassurance, and asked whether the participant wished to continue or take a break. No interviews were terminated early due to distress, but breaks were offered in two interviews.

All interviews were conducted in Persian (Farsi), which all participants spoke fluently. Initial translation of selected quotes into English for publication purposes was performed by a bilingual translator with healthcare experience and native proficiency in both Persian and English.

Table-1. Interview guide.

- "Can you describe a specific situation where a medical error occurred involving a child in your care? What happened, and what did you do immediately after?"
- "How did you come to communicate (or not communicate) the error to the family? What did you say, and how did the family respond?"
- "What thoughts, feelings, or physical sensations did you experience before, during, and after disclosing (or not disclosing) the error?"
- "What made disclosing the error easier or harder? Consider your own beliefs, team dynamics, hospital policies, and family characteristics."
- "What would need to change for you to feel more prepared to disclose errors to families in the future?"

To ensure conceptual equivalence, back-translation of 20% of quotes was performed by an independent translator, and discrepancies were discussed and resolved through consensus. Culturally loaded expressions (e.g., *ehteram* [respect/dignity]) were retained in Persian with explanatory footnotes to preserve cultural meaning. Interviews lasted 35–90 minutes (average: 55 minutes). Field notes captured nonverbal cues, emotional responses (e.g., crying, long pauses, lowered voice), and contextual details about unit culture, disclosure policies, and perceived consequences of errors. Data collection and analysis occurred iteratively.

2-6. Statistical Analysis

Data analysis followed Colaizzi's (1978) seven-step phenomenological method, which is well suited for extracting the structure of lived experiences while maintaining fidelity to participants' accounts (11). The analysis proceeded as follows:

1. Familiarization: Each transcript was read multiple times to gain a sense of the whole, noting initial impressions about nurses' experiences of error discovery, emotional reactions, interactions with families, and the aftermath.

2. Extracting significant statements: All sentences or phrases directly relevant to the experience of disclosing (or not disclosing) a medical error to a family were identified (e.g., "My hands were shaking when I walked into the room," "I

wanted to tell the mother everything but the physician told me to be vague").

3. Formulating meanings: Each significant statement was restated in general, phenomenological terms, moving from the participant's words to implicit meanings (e.g., "shaking hands" → "embodied fear of family reaction").

4. Clustering themes: Formulated meanings were grouped into theme clusters and subthemes, with attention to commonalities and unique variations. Disconfirming instances were actively sought.

5. Exhaustive description: A comprehensive written description of the phenomenon was developed, integrating all theme clusters.

6. Fundamental structure: The exhaustive description was reduced to the essential, invariant structure of the experience of disclosing a pediatric medical error to families.

7. Member checking verification: Participants reviewed the fundamental structure for accuracy (see Trustworthiness).

To enhance transparency, we provide the following worked example of the analytic process for one meaning unit in Table 2.

MAXQDA 2022 facilitated data organization. The first author performed initial extraction; all authors participated in iterative discussions to refine themes. A second coder independently analyzed 30% of transcripts (n = 5).

Table-2. Worked example of the analytic process for one meaning unit.

Raw Data (Participant 7)	Significant Statement	Formulated Meaning	Subtheme	Main Theme
"When I realized I had given the wrong dose... my heart stopped. My hands started shaking so badly I could not hold the syringe."	"My heart stopped. My hands started shaking so badly I could not hold the syringe."	Somatic experience of error discovery: heart palpitations and trembling	The somatic experience of error discovery	"The Weight of the Unspoken"

Intercoder agreement was 91% raw agreement, with a Cohen's kappa of $\kappa = 0.85$ (95% CI: 0.74–0.94), indicating strong agreement. Disagreements were resolved through consensus.

Trustworthiness (Rigor)

Trustworthiness was ensured using Lincoln and Guba's (1985) criteria, adapted for phenomenological inquiry (12):

- **Credibility:** Prolonged engagement (four months in pediatric units, including observation of shift handoffs, family meetings, and error reporting discussions); member checking (six participants [37.5%] selected to represent all unit types and error severity levels reviewed the fundamental structure and confirmed that it accurately reflected their experiences, with one adding a nuance about cultural shame, which was incorporated; peer debriefing (two external qualitative researchers, one with expertise in pediatric nursing, one in medical error research, reviewed analysis steps and theme development). The peer debriefing process led to refinement of two subthemes: "Physician gatekeeping" and "Institutional ambiguity" were originally presented as separate themes but were collapsed based on peer feedback. Negative case analysis: Three participants who described successful, supported disclosures (e.g., with apology, full transparency, and positive family response) were identified and compared against dominant themes. Their accounts highlighted the enabling role of supportive physician-nurse collaboration and visible administrative backing. We used these negative cases not merely as exceptions but to refine our understanding of what makes disclosure possible; specifically, we identified three enabling conditions: (a) a supportive physician who endorsed transparency, (b) a nurse manager who explicitly encouraged disclosure, and (c) a local (unit-level) disclosure protocol even in the absence of a hospital-wide policy.
- **Transferability:** Thick descriptions of the study context (including nurse-to-patient ratios, incident reporting systems, cultural norms about family hierarchy, and the legal environment for error disclosure) are provided to allow readers to assess applicability to other pediatric and healthcare settings, particularly in collectivist, middle-income countries.
- **Dependability:** An external auditor (qualitative methodologist with expertise in healthcare communication) examined the coding process, theme development, and audit trail (including memos, codebooks, and meeting minutes). The auditor's review led to two substantive changes: (a) the recommendation to collapse "physician gatekeeping" and "institutional ambiguity" into a single theme to better reflect their interconnection, which we adopted; and (b) the suggestion to foreground the negative-case analysis earlier in the Findings section to provide a counterpoint to the dominant narrative, which we also adopted. All decisions were documented.
- **Confirmability:** Reflexive journals kept by the first author documented preconceptions (e.g., that fear of

litigation would dominate; that nurses would avoid disclosure; that younger nurses would report more distress; and that disclosure would be universally negative) and how these were bracketed through team reflexivity sessions before and during analysis. Specifically, during reflexivity sessions, the team discussed how the first author's prior clinical experience in pediatric units might lead to assumptions about physician-nurse dynamics; this was bracketed by deliberately attending to positive deviance cases and using open-ended questioning that did not presuppose negative experiences.

2-7. Ethical Considerations

The study received ethical approval from the Ethics Committee of Urmia University of Medical Sciences (approval number: IR.UMSU.REC.1404.363). All procedures adhered to the Helsinki Declaration. Participants were informed of the study's purpose, its voluntary nature, and their right to withdraw at any time without affecting employment, shift assignments, or disciplinary status. Written informed consent was obtained before each interview.

2-8. Researcher Characteristics and Reflexivity

The research team included a PhD candidate in nursing with 5 years of clinical pediatric nursing experience, including experience in error disclosure situations (first author), a pediatric nurse manager with 10 years of experience, a medical ethicist, and a health communication researcher. At study initiation, the interviewer had no prior acquaintance with potential participants and had no administrative or evaluative role in any participating unit. The interviewer's clinical background meant she was familiar with the emotional

intensity of error disclosure but also carried assumptions, for example, that fear of litigation would be the dominant concern, that nurses would primarily avoid disclosure, and that more experienced nurses would disclose more fully. An assistant nurse manager on the research team was employed at one study hospital but was excluded from conducting interviews. These assumptions were systematically identified through reflexivity sessions before data collection and at regular intervals (every three interviews) during analysis. During analysis, we deliberately sought data that challenged these assumptions (e.g., negative cases of successful disclosure). Prior assumptions, for example, that nurses would primarily fear legal consequences, that disclosure would be universally negative, and that more experienced nurses would disclose more fully were identified through reflexivity sessions before data collection and at regular intervals. The team acknowledged that participants might underreport their own errors or overreport disclosure due to social desirability bias. The interviewer approached each account with openness, using reflective listening and avoiding judgmental language.

3-RESULTS

3-1. Demographic Characteristics of Participants

A total of 16 pediatric nurses participated in this descriptive phenomenological study. The mean age of participants was 34.8 years (SD = 6.2), ranging from 26 to 48 years. The sample included 13 females (81.3%) and 3 males (18.7%), reflecting the gender distribution of pediatric nursing in this setting. Regarding unit type, 7 participants (43.8%) worked in general pediatric medical-surgical units, 5 (31.2%) in pediatric intensive care units (PICUs), and 4 (25.0%) in pediatric oncology units. Years of pediatric nursing experience ranged from 1 to 20 years (mean = 8.4

years, SD = 5.1). Types of errors disclosed included medication errors (n = 9, 56.3%), procedural errors (n = 4, 25.0%), and diagnostic or monitoring errors (n = 3, 18.8%). Severity of harm to the child was categorized as no harm (n = 5, 31.3%), temporary harm requiring additional intervention (n = 8, 50.0%), and permanent harm (n = 3, 18.8%). Prior formal training in error disclosure was reported by only 2 participants (12.5%) (Table 3).

Negative case analysis: Three participants (18.8%) described successful, supported disclosures characterized by full transparency, verbal apology, positive or neutral family responses, and no subsequent professional punishment. These three participants uniformly worked in units where: (a) physician-nurse collaboration was described as "supportive" or "collegial" for example,

one participant stated, "My attending always said, 'If something happens, we tell the family together'"; (b) a nurse manager had explicitly encouraged honest disclosure; one participant noted, "My manager told me, 'Honesty is the best policy, I will back you'"; and (c) a formal disclosure protocol (though not hospital-wide) had been pilot-tested in their unit. By contrast, participants who described nondisclosure or partial disclosure consistently reported hierarchical physician-nurse dynamics, absence of institutional disclosure guidance, fear of medicolegal consequences, and lack of emotional support following errors. These negative cases thus serve not to disprove the dominant narrative but to demonstrate that supportive conditions can enable disclosure, offering a roadmap for intervention.

Table-3. Demographic characteristics of participants.

Characteristic	Category	Frequency (n)	Percentage (%)
Age (years)	26–34	8	50.0
	35–44	6	37.5
	45–48	2	12.5
Gender	Female	13	81.3
	Male	3	18.7
Unit type	General pediatric unit	7	43.8
	Pediatric intensive care unit (PICU)	5	31.2
	Pediatric oncology unit	4	25.0
Pediatric nursing experience (years)	1–5	6	37.5
	6–10	5	31.3
	11–20	5	31.3
Error type	Medication error	9	56.3
	Procedural error	4	25.0
	Diagnostic/monitoring error	3	18.8
Harm severity	No harm	5	31.3
	Temporary harm	8	50.0
	Permanent harm	3	18.8
Prior disclosure training	Yes	2	12.5
	No	14	87.5

3-2. Main Themes and Subthemes

The phenomenological analysis revealed four main themes that captured the essential structure of pediatric nurses' lived experiences of disclosing medical errors to families: (1) "The Weight of the

Unspoken" — embodied moral distress and fear of family response; (2) "Walking a Tightrope Without a Net" — navigating hierarchical constraints and institutional silence; (3) "The Moment of Truth" — the disclosure encounter as a turning point; and (4) "Carrying It Home" — the

enduring aftermath and search for redemption. Eleven subthemes supported these main themes (Table 4).

Theme 1: "The Weight of the Unspoken" — Embodied Moral Distress and Fear of Family Response

This theme captures the intense emotional and physical experiences nurses endured from the moment an error was discovered up to the point of disclosure or nondisclosure. Participants described visceral reactions, moral anguish, and profound fear of family reactions that often preceded and shaped disclosure decisions.

Subtheme 1.1: The somatic experience of error discovery

Participants consistently reported immediate physical sensations upon realizing an error had occurred, including tachycardia, trembling, nausea, and a sense of "freezing." These embodied responses were described as involuntary and overwhelming, occurring before any cognitive appraisal or decision about disclosure.

"When I realized I had given the wrong dose of medication, double the amount, my heart stopped. My hands started shaking so badly I could not hold the syringe. I had to sit down. I felt like I was going to vomit. And I thought, 'What have I done to this child?'" (Participant 7, PICU, medication error with temporary harm)

Subtheme 1.2: Anticipatory fear of family betrayal and anger

Nurses described paralyzing fear of how families would react to error disclosure. This fear extended beyond anger to include anticipated accusations of incompetence, loss of trust, family members fainting or crying uncontrollably, and damage to the therapeutic relationship. Many nurses described mentally rehearsing disclosure conversations but abandoning them due to catastrophic predictions.

"The mother trusted me completely. She held my hand every morning and said, 'I know you are taking good care of my son.' And I had made an error. I thought, 'If I tell her, she will never trust another nurse again. She will think we are all careless.' I could not bear to see her face change from trust to anger." (Participant 12, general pediatric unit, medication error with no harm)

Subtheme 1.3: Shame and threat to professional identity

Participants described error discovery as an assault on their identity as competent, caring professionals. Shame was distinguished from guilt: guilt focused on the specific act of error, while shame focused on the self as fundamentally flawed or a "bad nurse." This shame was described as particularly intense in pediatric settings, where nurses perceived a sacred duty to protect vulnerable children.

"I kept thinking, 'Good nurses do not make mistakes. Good nurses do not hurt children.' And I had hurt a child. Not on purpose, but I had done it. I felt like I did not deserve to be called a nurse anymore. How could I look at another child's parents and promise to keep their child safe?" (Participant 3, oncology unit, medication error with temporary harm)

During member checking, one participant added a nuance about cultural shame: "In our culture, shame is not just personal; it brings shame to your family, your community. I thought, 'If this gets out, my parents will be ashamed of me.' That made it even heavier." This cultural dimension was incorporated into the theme.

Theme 2: "Walking a Tightrope Without a Net" — Navigating Hierarchical Constraints and Institutional Silence

This theme captures the organizational and interprofessional context within which

nurses made disclosure decisions. Participants described physician gatekeeping, institutional ambiguity, and the absence of supportive structures as critical barriers that transformed disclosure from a professional responsibility into a risky, solitary act.

Subtheme 2.1: Physician as gatekeeper — "I could not speak first"

Nurses consistently reported that physicians, particularly attending pediatricians and residents, controlled whether and how errors were disclosed to families. Even when nurses wanted to disclose fully and honestly, they were explicitly instructed to defer to physicians or to provide vague, incomplete information. Several participants described being physically pulled aside and told what not to say.

"The physician said, 'Do not mention the medication error. Tell the family the child had an unexpected reaction. That is not a lie; it was unexpected. We do not need to say it was our fault.' I felt sick. I wanted to tell the mother the truth, but I could not contradict the physician. He would have destroyed my career." (Participant 9, PICU, medication error with temporary harm)

Subtheme 2.2: "No policy said what to do" — Institutional ambiguity and abandonment

Participants described working in a policy vacuum regarding error disclosure. No written protocols specified who should disclose, what should be said, whether apologies were permitted, or what documentation was required. In this absence of guidance, nurses felt abandoned to make impossible decisions alone, often defaulting to silence or partial disclosure out of fear.

"There is nothing written. No policy, no flowchart, no example. I asked my head nurse, 'What do I say to the family?' She

said, 'Use your best judgment.' But my judgment was frozen. I had no training. No one had ever taught me how to say, 'I made a mistake that hurt your child.' So I said nothing." (Participant 14, general pediatric unit, procedural error with temporary harm)

Subtheme 2.3: Fear of medicolegal consequences — "The lawsuit that lives in my head"

Even in the absence of actual legal action against participants or colleagues, nurses described pervasive fear of lawsuits, license revocation, termination, or permanent damage to their professional reputation. This fear was amplified by stories of nurses who had been "thrown under the bus" following errors and by the perception that hospital administration prioritized institutional liability over clinician support.

"Everyone knows a nurse who was fired after an error, or a nurse who was sued. I have never actually seen a lawsuit against a nurse here, but the fear is everywhere. It lives in the break room. It lives in the medication room. You think, 'If I tell the truth, I will be the one they sacrifice to protect the hospital.'" (Participant 1, oncology unit, medication error with permanent harm)

Subtheme 2.4: Nurse manager silence and lack of visible backing

Participants reported that nurse managers rarely, if ever, accompanied nurses during error disclosures, advocated for full transparency with physicians, or provided emotional support after difficult disclosures. This absence of visible leadership backing left nurses feeling exposed and alone, interpreting silence as tacit approval of nondisclosure.

"After the error, my manager said, 'Let me know what you decide to tell the family.' That was it. No 'I will come with you.' No 'Let's practice what you will say.' No 'I

have your back.' Just 'Let me know.' I felt completely alone." (Participant 5, general pediatric unit, medication error with no harm)

Theme 3: "The Moment of Truth" — The Disclosure Encounter as a Turning Point

This theme captures the actual or imagined disclosure encounter with the family, described by participants as a watershed moment that either deepened or alleviated moral distress. For those who disclosed fully, the encounter was often transformative, terrifying yet ultimately healing. For those who did not disclose, the absence of this encounter became a source of enduring regret.

Subtheme 3.1: The catastrophic disclosure that never happened — imagined disasters

Many participants who did not disclose full error information described having vivid, detailed fantasies of catastrophic family reactions: screaming, throwing objects, filing lawsuits, removing the child from the hospital against medical advice, or physically attacking the nurse. These imagined scenarios were experienced as so real that they precluded any attempt at disclosure.

"In my mind, I saw the father's face turn red. I saw him stand up and point at me and say, 'You hurt my daughter. Get out. Never come near her again.' I saw myself being escorted off the unit. That was not a possibility in my head; that was what would happen. So I could not say the words." (Participant 10, PICU, diagnostic error with permanent harm)

Subtheme 3.2: The healing disclosure — when families responded with grace

The three participants who described successful, supported disclosures reported that family responses were often less catastrophic than feared. In several cases, families expressed gratitude for honesty,

compassion for the nurse's distress, and strengthened trust following disclosure. These experiences were described as professionally and personally transformative.

"I finally told the mother, 'I made a mistake. I gave the wrong medicine. Your child is okay now, but I need you to know what happened.' And she cried. But then she reached out and held my hand. She said, 'Thank you for telling me. I know you did not mean it. You have been so good to us.' I broke down. That moment changed how I see myself as a nurse. I am not a bad nurse. I am a nurse who made a mistake and told the truth." (Participant 8, oncology unit, medication error with no harm negative case participant)

Subtheme 3.3: The nondisclosure regret — "The lie I live with"

Participants who withheld full error information from families described enduring regret, self-contempt, and a sense of having betrayed both the family and their own professional values. Even years later, these nondisclosure decisions were recalled with vivid detail and emotional intensity.

"It has been three years. Three years. And I still see that mother's face. She thanked me for taking care of her daughter. She did not know that I was the one who made the error. I never told her. I tell myself it was to protect her; she was already so stressed. But I know the truth. I was protecting myself. I will carry that for the rest of my life." (Participant 13, general pediatric unit, medication error with temporary harm)

Theme 4: "Carrying It Home" — The Enduring Aftermath and Search for Redemption

This theme captures the long-term consequences of disclosure or nondisclosure for nurses' professional and personal lives, including persistent

emotional symptoms, changes in clinical practice, and the search for meaning or redemption.

Subtheme 4.1: Intrusive memories and sleep disturbances

Participants described persistent, unwanted memories of the error and disclosure encounter that intruded into daily life, disrupted sleep, and could not be voluntarily controlled. Several participants met criteria for clinically significant post-traumatic stress symptoms, though none had sought a formal diagnosis.

"I wake up at 3 a.m. almost every night. And the first thought in my head is the error. I see the child's face. I see the medication label. I hear the physician's voice saying, 'Don't tell.' I cannot make it stop. I have tried everything: meditation, exercise, sleeping pills. It comes back every night." (Participant 2, PICU, procedural error with permanent harm)

Subtheme 4.2: Hypervigilance and practice changes

Many participants described becoming hypervigilant following an error, checking and rechecking medications, avoiding certain high-risk procedures, or requesting reassignment to less acute patients. While intended to prevent future errors, this hypervigilance was described as exhausting and demoralizing.

"I check every medication five times now. Five times. I know it is excessive. My colleagues make jokes about it. But I cannot stop. I am terrified of making another error. Some days I think I should leave pediatrics entirely. Maybe I am not safe to practice." (Participant 6, oncology unit, medication error with temporary harm)

Subtheme 4.3: "No one asked if I was okay" — Absence of organizational aftercare

Participants uniformly reported that after an error, regardless of whether disclosure occurred, no supervisor, manager, or hospital leader asked about their emotional well-being. No structured peer support, counseling referral, or second victim program existed. Nurses coped alone, often in silence, for fear of appearing weak or incompetent.

"The error happened. The child was fine. The family never knew. And then... nothing. No one said, 'Are you okay?' No one said, 'This happens. You are not alone.' I went back to work the next day and took care of other people's children like nothing had happened. But inside, I was falling apart. I cried in my car every morning for six months." (Participant 11, general pediatric unit, medication error with no harm)

Subtheme 4.4: Finding redemption through advocacy and peer support

Some participants described transforming their error experience into a source of meaning by advocating for system changes, supporting other nurses who made errors, or becoming informal disclosure mentors on their units. This redemption arc was described as essential to psychological recovery.

"After my error, I told my manager, 'We need a protocol. We need to train nurses on what to say.' She let me form a small working group. We wrote a one-page disclosure guide. Now, when a new nurse makes an error, I sit with them. I say, 'I have been there. You are not alone. Let me help you prepare.' That has been healing. The error is still part of my story. But it is not the end of my story." (Participant 15, oncology unit, medication error with permanent harm negative case participant)

Table-4. Summary of themes and subthemes.

Main Theme	Subthemes
"The Weight of the Unspoken" — Embodied moral distress and fear of family response	The somatic experience of error discovery
	Anticipatory fear of family betrayal and anger
	Shame and threat to professional identity
"Walking a Tightrope Without a Net" — Navigating hierarchical constraints and institutional silence	Physician as gatekeeper — "I could not speak first"
	"No policy said what to do" — Institutional ambiguity and abandonment
	Fear of medicolegal consequences — "The lawsuit that lives in my head"
	Nurse manager silence and lack of visible backing
"The Moment of Truth" — The disclosure encounter as a turning point	The catastrophic disclosure that never happened — imagined disasters
	The healing disclosure — when families responded with grace
	The nondisclosure regret — "The lie I live with"
"Carrying It Home" — The enduring aftermath and search for redemption	Intrusive memories and sleep disturbances
	Hypervigilance and practice changes
	"No one asked if I was okay" — Absence of organizational aftercare
	Finding redemption through advocacy and peer support

4- DISCUSSION

This phenomenological inquiry provides, to our knowledge, the first in-depth exploration of pediatric nurses' lived experiences of disclosing medical errors to families in the Iranian healthcare context. Within our sample of 16 participants, the findings suggest a complex, morally charged phenomenon wherein nurses navigate profound emotional distress, hierarchical constraints, institutional silence, and enduring psychological consequences. Four key themes emerged: embodied moral distress and fear of family response; navigating hierarchical constraints and institutional silence; the disclosure encounter as a turning point; and the enduring aftermath with a search for redemption. These findings, while specific to our sample and context, appear to align with and extend literature on error disclosure by illuminating the unique challenges faced by pediatric nurses in a collectivist, middle-income country setting, while also revealing universal patterns of second victim phenomenon and moral distress.

The intense somatic and emotional responses described by our participants tachycardia, trembling, nausea, and a sense of "freezing" align with existing research on healthcare professionals' immediate reactions to medical errors. Scott and colleagues' foundational work on the "second victim" phenomenon documented similar acute psychological distress, with clinicians describing errors as "a pit in my stomach" and "my world stopped" (13). Our findings extend this literature by suggesting that, in this sample, pediatric nurses experience these responses with particular intensity due to the perceived sacred duty of protecting vulnerable children. This finding resonates with research by Cramer and colleagues (14), who found that pediatric clinicians experience heightened moral distress following errors compared to adult-care counterparts, attributing this to the child's dependency and parents' entrustment.

However, our findings diverge from much of the Western literature in one critical respect: the anticipatory fear described by Iranian nurses was less focused on

litigation (though present) and more intensely focused on betrayal of trust and damage to the therapeutic relationship. In Iranian culture, where *ehteram* (respect/dignity) and familial interdependence are paramount (15), the prospect of losing a family's trust carries moral weight that may exceed the fear of legal consequences. This cultural dimension has been largely absent from disclosure research conducted in individualistic Western societies, where legal liability often dominates the discourse (16, 17).

Perhaps the most striking finding in this sample is the degree to which physicians controlled error disclosure, with nurses explicitly instructed to withhold information or provide vague, misleading explanations. While physician-nurse power differentials in error disclosure have been documented internationally (18, 19), the overtness and consistency of physician gatekeeping in our setting appear more pronounced. Participants described being "pulled aside," told "do not mention the error," and warned that contradicting the physician would "destroy my career." This finding suggests a hierarchical medical culture prevalent in the study hospitals, where the physician's authority remains largely unquestioned and nurses occupy a subordinate role in clinical decision-making and communication (20).

By contrast, studies from the United States, United Kingdom, and Australia have shown gradual but significant shifts toward interdisciplinary disclosure teams and shared responsibility for error communication (21, 22). For example, the IOM's "To Err is Human" and subsequent patient safety movements have encouraged flat hierarchies and empowered nurses to speak up about errors (23). No such cultural shift appeared to have occurred in our setting in Urmia. This difference likely reflects not only organizational culture but also legal frameworks: in Iran,

physicians bear primary legal responsibility for patient harm, which may incentivize them to control disclosure narratives (24).

The consequence of this gatekeeping, among our participants, is profound moral distress for nurses, who are caught between professional ethical obligations to be honest with families and institutional power structures that punish transparency. This represents a form of "moral residue" the cumulative burden of situations where one knows the right action but is constrained from taking it (25). For pediatric nurses, this residue is compounded by their unique relational proximity to families, who often view nurses as their primary advocates and most trusted information sources (26).

Our participants' descriptions of working without any disclosure protocol, training, or visible leadership support reflect a striking institutional failure in the study hospitals. The absence of "any written policy," "no flowchart, no example," and managers who offered only "use your best judgment" created what one participant called "abandonment." This finding contrasts sharply with high-income healthcare systems where disclosure policies, communication training programs, and second victim support services have become increasingly standard (27). For instance, the Canadian Disclosure Working Group has produced national guidelines for error disclosure (28), and many U.S. hospitals have implemented Communication and Optimal Resolution (CANDOR) toolkits (19).

The Iranian context appears to lag behind these international standards, based on our findings. To our knowledge, no national disclosure guidelines exist in Iran, and hospital-level policies remain rare (29). This policy vacuum, in the study hospitals, forces nurses to make impossible decisions alone, predictably resulting in nondisclosure or partial disclosure as the

default risk-averse strategy. Importantly, our negative case analysis revealed that the few nurses who experienced successful, supported disclosures worked in units where local leaders had developed informal disclosure protocols or where physician-nurse collaboration was unusually strong. This finding suggests that institutional support is not merely facilitative but may be necessary for disclosure to occur at all. A particularly important finding and one that challenges prevailing assumptions about disclosure inevitability causing harm is that three participants described disclosure experiences that were ultimately healing. Families responded with grace, gratitude for honesty, and even compassion for the nurse's distress. One participant described this as "the moment that changed how I see myself as a nurse." This finding aligns with a growing body of evidence that full, empathetic disclosure including an explicit apology often strengthens rather than damages trust (30). Studies of patient and family preferences consistently show that honesty, acknowledgment of harm, and emotional support are valued more highly than perfect clinical outcomes (31).

However, these positive experiences were the exception rather than the rule in our study, occurring only among nurses who worked in unusually supportive environments. This pattern suggests that, in this context, the absence of institutional support, rather than family hostility, may be the primary barrier to disclosure. In other words, when nurses are trained, backed by physicians and managers, and given permission to apologize, families may respond well. This finding has direct implications for intervention development: creating supportive disclosure infrastructure may simultaneously reduce nurse distress and improve family outcomes. The enduring psychological consequences described by our participants intrusive memories, sleep disturbances,

hypervigilance, and persistent regret meet criteria for the "second victim" phenomenon (32). Between 10% and 50% of clinicians involved in serious errors experience clinically significant post-traumatic stress symptoms, depression, or even suicidal ideation (33). Our participants' accounts of waking at 3 a.m., "crying in the car every morning for six months," and feeling "completely alone" echo these findings.

Critically, however, no participant reported being asked about their emotional well-being by any supervisor, manager, or hospital leader. No structured peer support, counseling referral, or second victim program existed in the study hospitals. This absence of aftercare is particularly concerning given evidence that untreated second victim distress can lead to burnout, attrition from nursing, and even subsequent errors (34). International standards, such as those from the Agency for Healthcare Research and Quality (AHRQ), recommend routine emotional follow-up for clinicians involved in errors (35). Our findings suggest that the study hospitals have not yet adopted even basic second victim support. The search for redemption described by several participants transforming error experience into advocacy, peer support, or system improvement represents a resilience pathway documented in the literature (36). Clinicians who find meaning in their errors, often through helping others avoid similar experiences, show better psychological outcomes and may even become patient safety champions (37). Our participants who formed working groups, wrote disclosure guides, and mentored newer nurses exemplify this transformation. Their experiences suggest that healthcare organizations could harness the expertise of second victims to improve disclosure practices, benefiting both clinicians and patients.

Several culturally specific factors shaped disclosure experiences in our setting. First, the Iranian value of *ehteram* (dignity/respect) created a double bind for nurses: disclosing an error could be seen as disrespectful to the family (by causing distress) but nondisclosure could also be seen as disrespectful (by withholding the truth). This tension, while not explicitly named by all participants, appeared to underpin many of their moral deliberations. Second, the collectivist family structure in Iranian and Azerbaijani/Kurdish cultures means that errors affect not just the child but extended family networks, amplifying anticipated family reactions (38). Third, the hierarchical physician-nurse dynamic described by participants reflects broader social hierarchies in Iranian society, where deference to authority figures remains strong (39).

4-1. Study Scope and Limitations

It is important to emphasize that our findings are anchored in the experiences of 16 pediatric nurses in two tertiary hospitals in Urmia, Iran. Our claims about institutional culture, national policy, and systemic reform are therefore suggestive rather than definitive, and require confirmation through larger-scale, multi-site research. The Discussion above should be read with this scope in mind.

Several limitations must be acknowledged. First, the study relied on self-reported errors, which may be subject to recall bias and social desirability bias. Nurses who experienced particularly traumatic errors may have declined participation, potentially underestimating distress levels. Second, our exclusion of nurses with severe psychological distress ($n=2$) may have removed some of the most important cases for this topic; consequently, the phenomenon may be even more severe than our findings suggest. Third, we did not interview families about their perspectives on disclosure, limiting our

ability to verify nurses' accounts of family responses. Fourth, the cross-sectional design captured experiences at a single time point; longitudinal research is needed to understand how disclosure-related distress evolves. Sixth, our member checking was limited to 6 of 16 participants; while these represented all unit types and error severities, we acknowledge that a larger member checking sample would have strengthened credibility. Finally, the presence of a nurse manager on the research team (excluded from interviewing) may have influenced some participants' willingness to disclose sensitive information, despite assurances of confidentiality.

4-2. Implications for Practice, Policy, and Research

Clinical Practice and Nursing Leadership

Based on our findings, the most urgent implication is the need for structured disclosure protocols and communication training for pediatric nurses in the study context.. Hospitals should develop culturally tailored, step-by-step disclosure guides that specify who should disclose, what language to use, whether apologies are permitted (they should be), and how to document the conversation. These protocols must explicitly empower nurses to speak truthfully, even when physicians prefer nondisclosure. Nurse managers require training in supporting staff after errors including accompanying nurses to disclosure conversations, providing emotional first aid, and making referrals to counseling services when indicated.

Health Policy and Regulation

Within the Iranian healthcare system, Iran's Ministry of Health and Medical Education should develop national disclosure guidelines for all hospitals, with specific guidance for pediatric settings where children's vulnerability and family involvement are paramount. These guidelines should address the legal status

of apologies; evidence from other countries suggests that apology laws (which prevent apologies from being used as evidence of liability) increase disclosure rates without increasing litigation costs [36]. Additionally, hospital accreditation standards should include disclosure training and second victim support as required criteria.

Nursing Education

Undergraduate and graduate nursing curricula in Iran should include mandatory content on medical error disclosure, including communication skills training, ethical frameworks for disclosure decisions, and strategies for coping with error-related distress. Simulation-based training with standardized family actors could provide safe practice opportunities. Importantly, education should address the hierarchical constraints nurses will face and provide scripts for respectfully advocating for transparency with physicians.

Future Research

Several research priorities emerge from this study. First, interventional studies are needed to evaluate the effectiveness of disclosure training programs and second victim support interventions in Iranian hospitals. Cluster-randomized trials comparing units with versus without structured disclosure protocols could provide high-quality evidence. Second, qualitative research with physicians and hospital administrators is needed to understand their perspectives on disclosure barriers and facilitators. Third, longitudinal studies should track nurses' psychological outcomes over months to years following errors, identifying risk factors for chronic post-traumatic stress. Fourth, research on family perspectives what Iranian parents want to know, how they want to be told, and what outcomes matter most to them would ground disclosure guidelines in patient and family values. Finally,

comparative studies across different Iranian regions and hospital types could identify contextual factors that moderate disclosure practices.

5- CONCLUSION

This phenomenological inquiry with 16 pediatric nurses in Urmia, Iran, suggests that medical error disclosure is experienced as an intensely distressing, morally complex phenomenon shaped by embodied fear, hierarchical constraints, institutional silence, and enduring psychological consequences. The absence of disclosure policies, training, leadership support, and second victim aftercare in the study hospitals appears to leave nurses to navigate these experiences alone, often resulting in nondisclosure and persistent regret. However, the transformative potential of supported, truthful disclosure evident in our negative cases offers hope. When nurses are empowered to tell families the truth, backed by physicians and managers, and given emotional support, disclosure can strengthen rather than damage trust and can become a source of professional redemption.

These findings, while specific to our sample and context, suggest an urgent action: developing culturally tailored disclosure protocols, training nurses and physicians in transparent communication, providing systematic aftercare for second victims, and conducting further research to evaluate these interventions in the Iranian healthcare system. Pediatric patients, families, and nurses all deserve a healthcare system that responds to errors with honesty, compassion, and a commitment to learning.

6- CONFLICT OF INTERESTS

The authors have declared that they have no competing interests.

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