WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Main Causes and Contributors of Nurses' Errors in the Intensive Care Unit

Kavichelvi K[1], Dr Jisha George[2]

[1] Research Scholar, Malwanchal University, Indore.
[2] Research Supervisor, Malwanchal University, Indore.

Introduction :

ICU among most daunting complex environments in healthcare. It serves the critically ill who need constant monitoring and specialized care. ICU nurses hold a crucial role in aiding patients' recovery. They ensure patient safety and administer overall care. At the same time the high-pressure environment is real. It heightens the possibility of errors. These errors can have grave consequences for patients. Also for healthcare systems.

Understanding main causes of nurses' errors is vital. It is particularly so in the ICU. Knowing these causes helps to mitigate mistakes. This is key to providing better care to patients in the end.

This essay will delve into major causes of nurse errors in ICU. This includes challenges at system level. Personal factors are also important in this context. Pressure from the environment and organization failures are other key contributors. This essay also highlights ways to minimize these missteps.

System-Level Challenges :

1. Complex Medication Management

Medication administration errors are common ICU errors. Complex computations are a factor. Rapid changes in patient conditions matter. Also, the need for fast interventions frequently cause dosing mistakes. Administering wrong medications or routes is another problem.

Several high-alert medications get prescribed for ICU patients. Anticoagulants are one example. Sedatives and vasopressors are others. These have narrow therapeutic windows. Calculations and administration are very precise for these drugs. Yet interruptions can happen. Unclear orders are possible. Both can cause errors.

Electronic prescribing systems exist. Computerized physician order entry or CPOE is one example. They lower risk of errors. However, they are not completely foolproof. New risks can come up. Technological failures can cause issues. Misinterpretation is also a risk

2. Inadequate Staffing Ratios

Nurse-to-patient ratios: critical determinant of quality of ICU care. Nurses assigned too many critically ill patients. This compromises their ability. They can't provide comprehensive, individualized care. The error risk increases. Overworked nurses often neglect routine safety checks. This results in oversights in medication administration. Patient monitoring and documentation are also compromised.

Studies show higher nurse-to-patient ratios are linked to increased mortality. There are more adverse events. Inadequate staffing leads to burnout fatigue and decrease in vigilance. This exacerbates the risk of errors further.

3. Fragmented Communication

Communication amongst multidisciplinary teams is important. These include physicians nurses respiratory therapists and pharmacists. It must be smooth. Yet most of the causes of nursing mistakes are because of communication failures. Miscommunication during shift handovers lead to issues. Unclear verbal orders also cause problems. Missing information on patient charts lead to improper treatment decisions.

SBAR is an acronym. It stands for Situation-Background-Assessment-Recommendation. It is a standardized tool that enhances communication. But inconsistencies in its application can lead to error. The ICU has a hierarchical structure. This may even prevent nurses from questioning unclear or incorrect orders. This is to ensure patient safety.

Individual Factors :

1. Fatigue and Burnout

ICU nurses typically work extended shifts under high stress. This often results in physical and mental debilitation. Key cognitive functions suffer. Decision-making becomes impaired. Attention suffers. The risk of committing errors increases.

In addition, burnout sets in. This is evident through emotional exhaustion. Detachment is also a sign. It impacts the ability to provide optimal patient care.

It is a proven fact that fatigue impacts nurses' judgment. The impact can be equated to alcohol intoxication. Due to this nurses are more likely to misinterpret clinical data. They may also administer wrong drugs. Failing to notice crucial changes in patient's condition can also occur.

2. Lack of Experience or Training

Nurses new to ICU setting often grapple with complexity. ICU nursing requires high-level clinical skills. It needs critical thinking. Also familiarity with specialized equipment. When an inexperienced nurse does not have enough training or guidance it causes errors. Errors like improper ventilator use or misinterpretation of hemodynamic data.

Deterioration of patient can be missed. Recognition can be delayed in this circumstance. Lack of proper training can be detrimental to a nurse's preparation. This is why, continuous education is essential. This education will prepare the nurse. Yet it is important to note. When orientation programs are inadequate, nurses may leave. Nurses may feel unprepared for the ICU. The ICU is a challenging environment. It is a high-stakes environment that demands careful handling.

3. Cognitive Overload

ICU nurses deal with overload. They process heaps of information. This includes signs that are vital. Lab results. Orders for medication. The history of the patient. A never-ending flow of data can be draining. It can make them overloaded cognitively. This is when the capacity of a nurse to handle and prioritize information is surpassed.

Critical details can be missed sometimes. These errors are the result. Time pressure and multitasking worsen the situation. Take for instance a nurse responsible for multiple tasks. These could include tending to alarms, giving medication and documenting care. This nurse can unintentionally ignore an important lab result. A necessary intervention might get postponed.

Environmental Pressures :

1. Alert Fatigue

A multitude of monitors populates ICUs. The alarms they produce can be helpful. But an excess often causes desensitization. This is alarm fatigue. Nurses may start to ignore these alarms. This results in an increased chance of bad outcomes.

Reports demonstrate a significant number of alarms in ICUs are false. They do not carry clinical significance. It is challenging to differentiate between true and false alarms. Errors in patient monitoring can result from this. Additionally, there can be delayed responses.

2. High-Stress Environment

ICU environment always carries stress. Patients' conditions are usually critical. The need for interventions is urgent. It is a common occurrence for nurses to take rapid decisions. Often, this is based on incomplete information.

The high stress of the environment can lead to impaired judgment. Anxiety might rise. Mistakes in patient care can increase. Neglecting the psychological burden of watching patients suffer is another form of stress. There is a finality about patient care in the ICU. This can lead to the poor mental health of a nurse.

Organizational Shortcomings :

1. Lack of Standardized Protocols

Inconsistencies in care protocols and procedures add to nursing errors in ICU. For example, variations exist in how central line infections are prevented. Also, in how medications are checked errors can arise. A lack of standardized workflows further paves the way for discrepancies. These discrepancies may occur during shift handovers.

Standardized protocols checklists and guidelines are crucial. They ensure consistency and reduce variability in care. However the effectiveness relies on certain aspects. These aspects include proper implementation and regular updates. Also staff compliance is a necessary consideration.

2. Insufficient Support Systems

ICU nurses lack robust support structures. Structures to help them with their demanding work. Operating with a lack of unit clerks is impractical. And working without patient care technicians is too. These scenarios compel nurses to take on extra responsibilities. Many times these responsibilities include administrative tasks. This leaves them with limited time and energy for patient care.

Inadequate provisions of essential equipment are also an issue. Causing further hindrances for good care. It doesn't stop there though. Extended waits for lab results can additionally deter nurses. Prevent them from delivering safe care.

3. Poor Leadership and Management

Leadership is critical. It shapes the ICU work environment. Unsupportive or ineffective management can make things worse. It can make issues like staffing shortages. It can cause inadequate training. It can also contribute to communication breakdowns. A lack of regular performance reviews is another issue. Also feedback mechanisms. Even opportunities for professional development can be lacking. This undermines nurses' ability to excel in their roles.

Strategies to Minimize Errors :

1. Improving Education and Training

Education that continues and training that is based on simulation can give nurses skills. They also gain confidence. They can navigate the complex nature of an ICU with these skills. Regular workshops certification, mentorship programs. All these tools can bridge the gaps in knowledge. They can ensure nurses are ready for high-pressure situations.

2. Putting Technology Solutions into Practice

Barcoded medication administration, electronic health records are advanced technology. They can reduce errors. They automate standardize processes. Tools should be user-friendly. They need to be complemented with adequate training. This will prevent unintended errors.

3. Promoting a Culture of Safety

Fostering a culture that is not punitive is vital. This is where nurses feel empowered to report errors. They are also encouraged to report near misses. All of this is crucial for improving patient safety. Open communication and teamwork are necessary elements. Shared accountability is another. These can encourage proactive error prevention. They can also promote continuous learning.

4. Addressing Workload and Staffing

Hospitals must put emphasis on adequate nurse-to-patient ratios. This action is crucial. Equally important is providing enough support staff. These actions can lessen the strain of workload.

Flexible scheduling is an option. Regular breaks can help. Wellness programs can also contribute. All these together can mitigate fatigue and burnout.

5. Enhancing Communication and Collaboration

Tools for structured communication exist. SBAR is an example. Standardized handover protocols are another. Such tools improve flow of information. They reduce errors during transitions of care.

Encouragement of interdisciplinary collaboration matters. Breaking down hierarchical barriers is significant. These enhance communication and teamwork.

6. Streamlining Alarms and Workflow

Efforts made to reduce alarm fatigue are beneficial. Customizing alarm thresholds can help. Implementing smarter monitoring systems can too. This improves nurses' ability to react to critical alerts.

Optimizing workflows achieves similar results. Using lean methodologies can assist. This helps minimize inefficiencies. It also minimizes distractions.

Conclusion :

Errors in the ICU have led to serious repercussions for patients and the healthcare system. Need exists for root causes of these errors to be considered. An approach integrating education technology, organizational support as well as a culture of safety is key to reduction.

Such errors can be reduced if healthcare systems understand and address certain factors. Systemic, individual environmental and organizational factors that contribute to nursing errors must be addressed.

Nurses should be empowered with tools training and necessary support. This not only reduces errors but also enhances job satisfaction and patient outcomes. ICU care relies on nurses making them the backbone. Every nurse deserves supportive work environment. This allows them to work confidently precisely and compassionately.

REFERENCE :

1. 1.Donchin Y, Gopher D, Olin M, et al. A look into the nature and causes of human errors in the intensive care unit. Crit Care Med. 1995;23:294–300.
2. 2.Wilson RM, Runciman WB, Gibberd RW, Harrison BT, Newby L, Hamilton JD. The Quality in Australian Health Care study. Med J Aust. 1995;163:458–71.
3. 3.Chassin MR, Becher EC. The wrong patient. Ann Intern Med. 2002;136:826–33.
4. 4.Leape LL, Brennan TA, Laird N, et al. The nature of adverse events in hospitalized patients. Results of the Harvard Medical Practice Study II. N Engl J Med. 1991;324:377–84.
5. 5.Bhasale AL. Analysing potential harm in Australian general practice: an incident-monitoring study. Med J Aust. 1998;169:73–6.
6. 6.Sutcliffe KM, Lewton E, Rosenthal MM. Communication failures: an insidious contributor to medical mishaps. Acad Med. 2004;79:186–94.
7. 7.Birtwistle L, Houghton JM, Rostill H. A review of a surgical ward round in a large paediatric hospital: Does it achieve its aims? Med Educ. 2000;34:398–403.
8. 8.Boyle DK, Kochinda C. Enhancing collaborative communication of nurse and physician leadership in two intensive care units. J Nurs Admin. 2004;34:60–70.
9. 9.Baggs JG, Ryan SA. ICU nurse-physician collaboration and nursing satisfaction. Nurs Econ. 1990;8:386–92.
10. 10.Gittell JH, Fairfield KM, Bierbaum B, et al. Impact of relational coordination on quality of care, postoperative pain and functioning, and length of stay: a nine-hospital study of surgical patients. Med Care. 2000;38:807–19. .
11. 11.Shortell SM, Zimmerman JE, Rousseau DM, et al. The performance of intensive care units: does good management make a difference? Med Care. 1994;32:508–25.
12. 12.Dutton RP, Cooper C, Jones A, Leone S, Kramer ME, Scalea TM. Daily multidisciplinary rounds shorten length of stay for trauma patients. J Trauma. 2003;55:913–9. [
13. 13.O'Hare PA. Comparing two models of discharge planning rounds in acute care. Appl Nurs Res.. 1992;5:66–73. [DOI] [PubMed] [Google Scholar]
14. 14.Montague ML, Lee MSW, Hussain SSM. Staff attitudes to a daily otolaryngology ward round. J Laryngol Otol. 2004;118:963–71. .
15. 15.Young MP, Gooder VJ, Oltermann MH, Bohman CB, French TK, James BC. The impact of a multidisciplinary approach on caring for ventilator-dependent patients. Int J Qual Health Care. 1998;10:15–26. .
16. 16.Reuss E, Menozzi M, Buchi M, Koller J, Krueger H. Information access at the point of care: what can we learn for designing a mobile CPR system? Int J Med Inf. 2004;73:363–9.
17. 17.Vazirani S, Hays RD, Shapiro MF, Cowan M. Effect of a multidisciplinary intervention on communication and collaboration among physicians and nurses. Am J Crit Care. 2005;14:71–6.
18. 18.Busby A, Gilchrist B. The role of the nurse in the medical ward round. J Adv Nurs. 1992;17:339–46.
19. 19.Seo M, Tamura K, Morioka E, Shijo H. Impact of medical round on patients' and residents' perceptions at a university hospital in Japan. Med Educ. 2000;34:409–11.