Barrier faced by Nurses of Intensive Care Unit (ICU) in the Delivery of Nursing Care to ICU Patients

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Abstract

Background: Nurses in the Intensive Care Units (ICUs) usually deliver care to critical patients and their families. providing extreme quality health care is crucial for both patients and families, ICU nurses faced numerous barriers while caring ICU patients. This study aims to identify the barriers perceived by the nurses during working in intensive care units .

Methodology

Three hospitals participated in a descriptive cross-sectional study. The current study enrolled a total of 289 intensive care unit nurses. To obtain data, an adapted and modified questionnaire was employed. The questionnaire includes questions concerning nursing care barriers as well as demographic information about nurses. For each aspect, a five-point Likert scale was employed, with 1 indicating strong agreement and 5 indicating strong disagreement.

Results: In our study, among 289 participants, maximum of the study members 176 (60.9%) were in the age group of   20–30 years. Most of ICU nurses stated the family barrier as the main barrier were perceived by mean score of 4.01 ± 0.50. The other associated barriers include technological, organizational barriers, task and environmental barriers.

Conclusions:

According to a recent study, ICU nurses experienced a number of challenges when caring for ICU patients. The highest obstacle among ICU nurses was the family barrier, with a mean score of 4.01 0.50. The majority of nurses believed that spending a lot of time explaining things to patients' family members (87.9%) was the most common family barrier. The recent study findings can be used by healthcare policymakers and nursing management to improve the performance of the healthcare system.

Keywords: Perceived Barriers; Patients Care; Nurses;. Intensive Care Units

Introduction

In critical care facilities, patients are treated using intensive therapeutic methods and cutting-edge technological aid with an emphasis on recovery or cure. Caretakers frequently need to shift their attention away from a curative approach to patient care in the critical care unit, where patient deaths are mostly brought on by the extreme complexity of the medical diseases (Beckstrand et al., 2021).

Patients who require admission to critical care units (ICUs) are becoming more prevalent on a global scale. Recruitment and retention of the ICU nursing staff are simultaneously becoming a major problem because to the high intensity environment, heavy workloads, and declining nurses welfare (Adams et al., 2019).

The healthcare professionals who move about the most, coordinating care amongst physicians, specialists, patients, and families, are critical care nurses. The work of the medical team is supported, supervised, and evaluated by critical care nurses while they also tend to a variety of nursing interventions and needs, such as those for tools, materials, and supplies, medical records, and other informational needs, as well as for communication with surrounding units or with other units and support departments (Obeidat and Younis, 2022).

In hospitals, nurses are the primary providers of care. No matter how many nurses work in healthcare facilities or how important their work may be, they are the only medical professionals who are available to patients' bedsides around-the-clock. Through early problem identification, nurses may greatly enhance the standard of care and patient safety. 2020 (Horton Dias and Dawson)

Due to performance realization hurdles, it is difficult to provide standard patient care without utilizing all available nursing resources. Many patients who are treated in the critical care unit go on to recover (Fortney et al., 2017).

Families of seriously ill individuals constantly experience physical, mental, and emotional weariness. They suffer for a number of compelling reasons, including having to deal with a foreign hospital environment, commonly misunderstood medical information, uncertainty and ambiguity surrounding patient prognosis, and more. Families' anxiety and despair may be exacerbated by their inability to frequently visit and remain with their sick loved one (Downar et al., 2014).

Despite the fact that they are pushed to participate in care and safety and are increasingly seen as members of the "care team," (Bell et al., 2018), patients and families nonetheless often feel isolated.The ease with which patients and their families express concerns to physicians in real time is little understood. To provide patient-centered care, it is crucial to make sure that patients and their families feel comfortable sharing concerns (Bell et al., 2018).

The fact that nurses always remain by the patient's bedside means they are ideally equipped to support the family and serve as a hub of communication for all parties engaged in the patient's

care, including the family and the medical staff. Unnecessary and frequent family visits or a congested unit become barriers to providing nursing care in the ICU. By calling nurses for updates on patients' illnesses too frequently, making excessive phone calls, and spending a long time to explain things to families, healthcare professionals can feel irritated. Family members can significantly increase the workload for nurses, according to Mohammadi et al. (Mohammadi et al., 2015).

One research found that the ICU workload, the busy, chaotic workplace, and the lack of knowledgeable staff were the biggest performance barriers. Nurses in the United States also noted problems with ICU size and environmental conditions, which could be barriers to nursing performance (Gurses and Carayon, 2007). There appears to be a wide range of barriers in various ICU settings around the globe that require further investigation. The purpose of this research was to identify nursing job performance barriers in nominated hospitals' intensive care units.

Methods

ICU nurses who met the inclusion criteria participated in a descriptive cross-sectional study. There are three public sector hospitals in Lahore, Pakistan, due to their significant educational missions.

Data Collection

A questionnaire that had been adopted and modified was used to collect the data. The questionnaire was divided into two parts. Part A contains demographic data about nurses, such as age, sex, education level, nursing job experience, and ICU employment experience. 22 themes in Part B covered various barriers to nursing care. A Likert scale was used, with one representing strongly agree and five strongly disagree for each factor.

Procedure

Before registering the participants (based on inclusion and exclusion criteria) for research, the administrators of the nominated hospitals granted their assent. The researcher made contact with the selected subjects. All selected participants were requested to sign informed consent forms after being informed of the study's goals, benefits, and other pertinent information. A modified structured questionnaire was utilized to gather data.

Data from hospitals were collected both in the daytime and at night. Each community member is given a number, and a fair and scientific random selection is used to select the tenth member. We

pick the tenth person in these scenarios. Participants got help understanding and responding to the questions. Participants were expected to respond to each question with the following:

The participants' privacy was maintained. Participants were given assurances of confidentiality throughout the data collecting, analysis, and interpretation processes. The ethical guidelines were strictly observed throughout the entire research project.
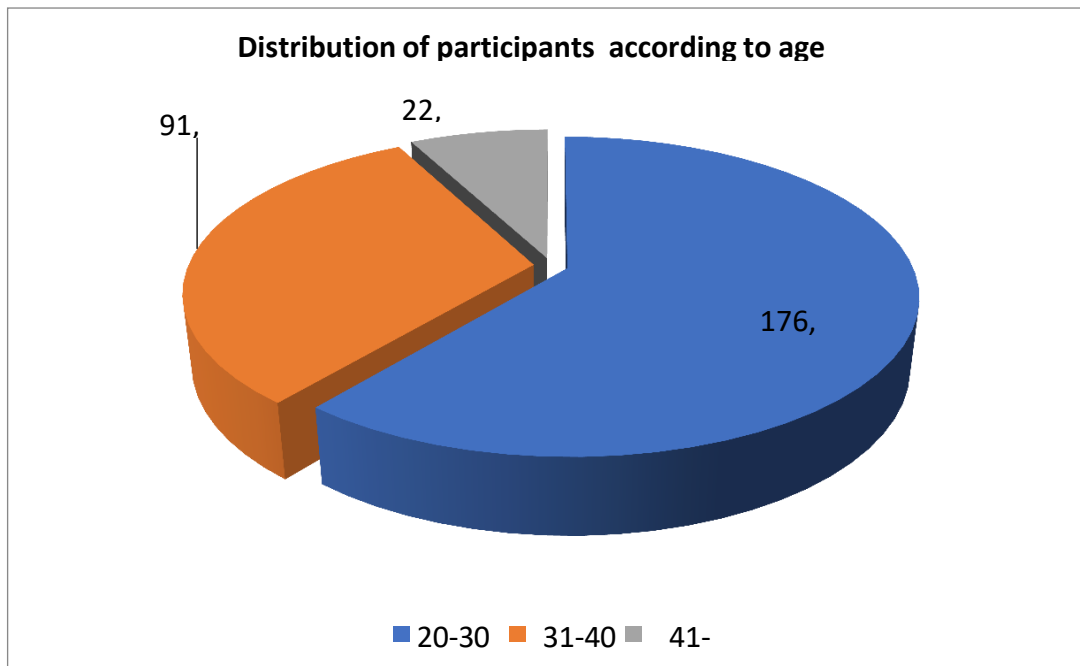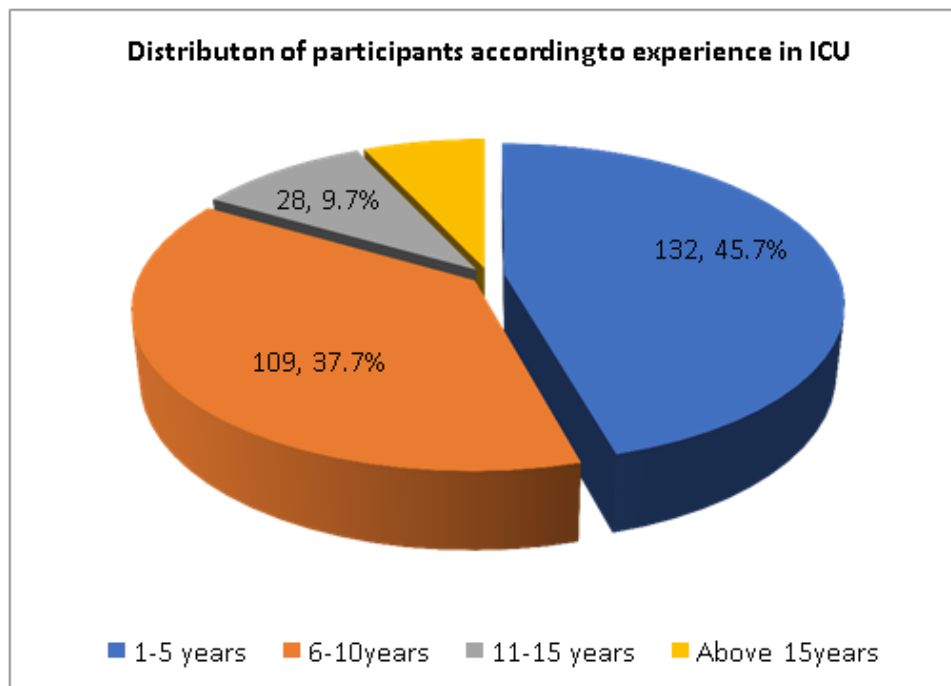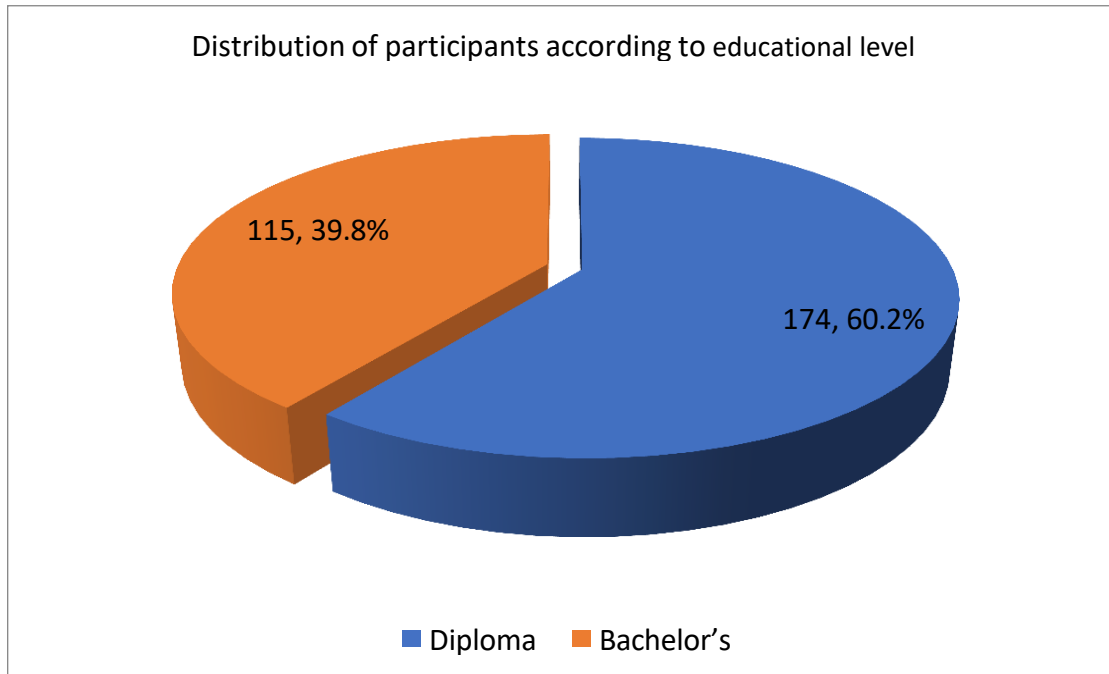
Data Analysis

The data were analyzed using SPSS 23. The mean and standard deviation were used to calculate the scores for age and nursing care barriers. Distributions for gender, hospitals, educational attainment, and experience were listed in frequency and percentage.

Results

Based on inclusion and exclusion criteria, 289 patients from Lahore's Jinnah Hospital, Sheikh Zaid Hospital, and Lahore General Hospital were selected for this study. Of the study's participants, 176 (60.9%) were between the ages of 20 and 30. Of the 289 participants, 115 (39.8%) had bachelor's degrees, and 174 (60.2%) held certificates. Of all participants, 132 (45.7%) had worked in an ICU for a period of 1 to 5, 109 (37.7%), for a period of 6 to 10, 28 (9.7%), for a period of 11 to 15, and only 20 (6.9%) had worked there for a period of more than 15 years. Figures 1, 2, and 3 show the study participants' demographic breakdown

Out of 289 participants, 97 (33.6%) were from the Jinnah Hospital, Lahore, 95 (32.9%) were from the Sheikh Zaid hospital, Lahore, and 97 (33.6%) were from the Lahore General Hospital, Lahore.

Distribution of participants according to educational level

115, 39.8%

174, 60.2%

■ Diploma   ■ Bachelor's

Distributon of participants accordingto experience in ICU

28, 9.7%

132, 45.7%

109, 37.7%

■ 1-5 years   ■ 6-10years   ■ 11-15 years   ■ Above 15years

The mean score of the environmental barrier was 3.62 ± 0.64, ranging from 2.0 to 5.0. The mean score of the organizational barrier was 3.40 ± 0.73, ranging from 1.2 to 5.0. The mean score of the technological/tools barrier was 3.44 ± 0.76, ranging from 1.0 to 5.0. The mean score of the task barrier was 3.70 ± 0.68, ranging from 2.3 to 5.0. The mean score of the family barrier was

4.01 ± 0.50, ranging from 2.5 to 5.0. The mean score for family barriers was higher, indicating that the family barrier was the most prevalent in nursing care, followed by task barrier, environmental barrier, technological/tool barrier, and organizational barrier.

Table 01: The descriptive statistics of nursing care barriers in ICU

Barriers	Mean ± SD	Minimum	Maximum
Environmental Barrier	3.62 ± 0.64	2.0	5.0
Organizational Barrier	3.40 ± 0.73	1.2	5.0
Technological/Tools Barrier	3.44 ± 0.76	1.0	5.0
Task Barrier	3.70 ± 0.68	2.3	5.0
Family Barrier	4.01 ± 0.50	2.5	5.0

An independent sample t-test was used to compare the mean barrier score among nurses with different educational status. The results revealed that there was significant difference in mean score of organizational, task and family barriers. The mean barrier score was higher in in nurses with bachelor educational status as compared to those who have diploma as highest degree. However, no significant difference was observed in mean environmental and technological/ tools barrier score among nurses with different educational status (table 2).

Table 02: comparison of barrier score of participants among nurses with different educational status

Highest degree	Environmental Barrier	Organizational Barrier	Technological/ Tools Barrier	Task Barrier	Family Barrier
Diploma	3.56 ± 0.64	3.31 ± 0.67	3.41 ± 0.75	3.64 ± 0.68	3.95 ± 0.52
Bachelor's	3.71 ± 0.64	3.53 ± 0.79	3.50 ± 0.77	3.80 ± 0.66	4.10 ± 0.47
p-value	0.061	0.013*	0.298	0.047*	0.010*

Discussion

The   total number of 289 volunteers from three hospitals, representing various age groups, were enrolled in our study. The majority of them had to do with the 20 to 30 age range, and a survey revealed the same demographic data. (Hemming et al., 2003)

Most nurses either agree or strongly agree that there is not enough room for documentation, and half of them also think that the visiting hours are too flexible. The performance of nurses is negatively impacted by flexible visiting hours. A friendly relationship between nursing staff and family members is also advised so that nurses are not need to respond to the same inquiries repeatedly. A previous study by Beckstrand et al also reported that visiting hours was too flexible (mean=2.40) (Beckstrand and Kirchhoff, 2005).

Insufficient information from doctors (47.7%) and the nurse from the previous shift (50.2%) during the shift change report was a common organizational barrier in our study. ICU patient care, however, requires a team effort that requires coordination and communication (Rajaeian and MasoudiAlavi, 2018).

Nurses from both shifts have noted the same issues with the records being used. This has been observed in the shift change report in particular, which the participants have attributed to two causes. Either the reports weren't full or they weren't updated. It was particularly striking that several physicians did not appear to finish their records. The shift change report was deemed to have taken too long by 54% of the nurses. Unnecessary information was included in several nursing handovers. According to the survey, some junior physicians and nurses had trouble finding information that was necessary for treating patients.

According to the report, 77.7% of nurses concur that there are unexpected and unscheduled admissions and discharges occurring every day in the intensive care unit. Another duty hurdle, according to 49.2% of ICU nurses, is following an ICU patient during intra-hospital transport for testing and treatments. Critical care unit nurses' workload is greatly increased as a result, which takes them away from caring for ICU patients. 61.6% of critical care nurses reported having more responsibility for new nurse orientation, which was a task barrier in terms of performance hurdles.

"New nurses were more likely to stay in their present post if they were happy with a variety of workplace factors, including their coworkers, interactions, recognition, and professional prospects, according to Roberts et al. (2004). O'Neil (2008) said, "Nurses perform well when

they are aware of the ICU mission, have planned instructions, and are grouped around common standards."

Family members often have inadequate understanding and perceptions of life-saving procedures, such as chest compressions that can break a patient's ribs or an ET tube that causes agony and prevents communication (Beckstrand et al., 2008). It is presumable that an increase in the workload for ICU nurses is related to the excessive number of calls from family members (Mohammadi et al., 2015). According to Wang and Tsai (2010), there are three main causes of perceived barriers among ICU nurses: patients and their families, nurses themselves, and hospital and government rules. Additionally the more than 80% nurses agree or strongly agree that the family not accepting if physician explain about patients poor prognosis. A comparative study of American Association of Critical-Care Nurses also reported that families who refuse to accept a patient bad prognosis until death is a top 5 obstacles faced by nurses. Physicians frequently wait until a disease process has progressed to the point where they may discuss the prognosis with the patient's family (Beckstrand et al., 2017). Similarly another study recognized the family not accepting a poor prognosis of patients as a top 10 perceived barrier among nurses (Beckstrand et al., 2017).

Conclusions

The current study's findings revealed that a number of challenges faced ICU nurses while they provided care for ICU patients. Family barrier was the perceived difficulty ICU nurses met most frequently. ICU nurses also confronted challenges with regard to a variety of tasks, the environment, technology, and organizational challenges.

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