



## TRAINING PROGRAMS OF NURSES WORKING IN INTENSIVE CARE UNIT

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**Abstract:** An intensive care unit is a specialized area of a hospital where patients' serious illnesses or injuries receive special medical and nursing care. ICU nurses are highly knowledgeable and skilled health care professionals that work in an ICU in association with members of the hospital team to provide optimum patient care. The purpose of critical care training is to enhance patients' safety. ICU nurses need critical care specialist training to work effectively in intensive care unit. Hospitals may be incapable to appoint intensivists because of a deficiency of available trained staff. Nurses in specialty training for intensive care and emergency nursing must be trained in ICU under the supervision of sufficient training employees. They should not be seen as alternate for regular intensive care nursing staff but may be progressively assigned to patient care according to their actual intensity of training. The aim of the present research is to study training practices for ICU nurses followed in selected hospitals in Pimpri-chinchwad municipality corporation area. This study gives idea about various critical care nurse training programs carried in the ICU section of hospital. Hospital management should design training budgets and training programs which help to enhance the knowledge and skills of its ICU nurses. The findings of this research focus on a variety of critical care training programs adopted by hospitals.

**Keywords:** Training, Nurses, Hospital, ICU

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## INTRODUCTION:

Intensive care provides severe medical treatment to the most ill or injured patients in the hospital. These patients have need of continuous monitoring and sophisticated medical treatment. The serious patient is frequently attached to several machines and monitors which provides supportive care required to prolong life. Intensive care unit is open or closed or a combination of both types of units. Nursing, pharmacy, and respiratory therapy staff is ICU based for critical patients. In ICU, patients receive care primarily from physicians. The skills and knowledge of critical care nurses possibly will be directed towards health promotion, crisis interference, maintenance and treatment of critical patients. Training primarily focuses on teaching organizational members how to perform their current jobs and helping them performs. (Jones, George and Hill, 2000). ICU nurses can sustain professional competence through ongoing education, training, research and skill development and attempt to provide evidenced-based practice through promotion of research within their specialty areas. Critical care is provided by an ICU-based team of critical care physicians, nurses, pharmacists, respiratory therapists, and other health professionals. Advanced medical technology allows the treatment of illnesses and injuries earlier thought not curable, in addition to the aging of the population; there is no reason to expect admissions to intensive care units to turn down. Advanced healthcare technology and ICU environment need to develop their practice to meet the changing critical care environment. The intensive care unit offers patients sophisticated medical interventions and specialized staffing. Often after experiencing a sudden, unexpected painful event such as an acute illness or injury patients are admitted to the ICU. In some cases patients are admitted to ICU subsequent deliberate medical procedures such as surgery for stabilization and monitoring. Employees in ICU face traumatic situation include “the medical and technological equipment, the constant monitoring of the patient, the alarm signals” (Delva et al., 2002). Many teaching hospitals have decreased the size of their fellowship programs in critical care for financial reasons, thus limiting the supply of new certified intensivists. Also, related to reimbursement issues, many board-certified intensivists are choosing not to work in the ICU. Staff development involves the training, education and career development of staff members (Adamolekun 1983). Quality healthcare delivery requires many components including a community able to provide a qualified and skilled labor force to



work in hospitals. A shortage of skilled workers creates a stress on healthcare delivery systems and undermines hospital quality. The purpose of this research is to study current training programs carried for ICU nurses.

### **REVIEW OF LITERATURE:**

The major reasons for ICU admission are respiratory insufficiency, postoperative care and heart failure (Angus, et al., 2006). The specialty of intensive or critical care has grown and expanded exponentially (Grauer, 2008). Staff training in the ICU is very important. Several training systems are cited in the literature and all have slightly different views on the elements of an effective training system (Cohen & Colligan, 1998). Critical care specialists are always available to provide expertise on a consultation basis. Intensive care unit set challenges to healthcare providers. There are some other factors that influence the effectiveness of training and development in an organization, one of them that are the human resource policy of training and development (Haywood, 1992). In ICU most serious patients need close and continuous attention of the healthcare team (Knaus et al., 1986). Number of hospitals providing ICU facility is progressively increasing (Halpern et al., 2004). It is mentioned that too many training program place emphasis on ease and the very purpose behind the design of programs namely, learning, skill development and behavioral change, has defeat the original purpose and goals of training are lost and the means all too readily becomes the end. Mostly the admission to intensive care is unexpected and the patient's condition is generally unstable (Daly et al., 1994 & Freichels, 1991). Many a times patient is in a state of rapid change, this condition of instability stresses the ICU staff. There are several advantages to developing system level competencies and standards in critical care nursing. Standards ensure that nursing practices are consistent with the delivery of effective critical care services. Furthermore, the human resource policy would determine a clear link between training and an organization's career development and reward system in which training might leads to recognition and advancement (Cheng & Ho, 1998). It is important to design critical care training program as well as evaluation of training, the development and orientation, continuing education, and quality improvement programs for ICU nurses. Intensive care nurses are registered nursing personnel, formally trained in intensive care medicine and emergency medicine. A specific program should be available to assure a minimum of competencies amongst the nursing staff (Schmalenberg C & Kramer M,



2007; Gurses AP & Carayon P, 2007). ICU nurses need to be well trained as necessary to provide appropriate care and observation is calculated according to the levels of care in the ICU. The importance of core standards and competencies in critical care nursing has been emphasized by numerous critical care nursing organizations, both inside and outside of Canada. Maintaining critical care nursing standards ensures the delivery of competent and safe patient care. Also, standards are vital to support nurses in other areas of their professional development such as career development, research, and leadership opportunities. It is found to be necessary to improve training efforts through quality practice which emphasizes on employee development, education and training for the improvement of quality performance (Deming, 1982 and Ishikawa, 1984). This research will provide information on a variety of critical care training programs adopted by hospitals.

### **RESEARCH OBJECTIVE:**

To study training programs carried for nurses working in intensive care unit.

### **RESEARCH METHODOLOGY:**

The objective of present research is to study training programs of nurses working in intensive care unit of selected hospitals in PCMC area. The focus of our research is to collect information regarding training programs and various training methods adopted by intensive care unit of hospital. The theoretical structure of the study model utilized research articles as the basis for data collection and analysis. A total of 50 nurses working in ICU were chosen from six hospitals. Interview outline was designed and the personal interview was conducted. Finally, the collected data were analyzed and the conclusion and recommendation was drawn. The research questions covered in the survey included:

1. Nursing staff levels working in ICU.
2. Training needed for ICU nurses
3. Type of training programs carried for nurses working in ICU
4. Special training received by ICU nurses
5. Training satisfaction of ICU nurses

### **RESULT AND DISCUSSION:**

An ICU is a consolidated area of a hospital where patients with acutely life-threatening illnesses or injuries receive around the clock specialized medical and nursing care. Intensive



care medicine is the result of close cooperation among doctors, nurses, and allied health care professionals.

### NURSING STAFF LEVELS IN HOSPITAL:

- a. Matron
- b. Head Nurses
- c. Deputy Nurses
- d. Sister
- e. Staff nurse
- f. Midwives

### RESPONSIBILITIES OF ICU HEAD NURSES:

In most of the selected hospitals the nursing staff is managed by a dedicated, matron and full-time head nurse, who are responsible for the functioning and quality of the nursing care. The head nurse has extensive experience in intensive care nursing and in some hospitals supported by one deputy head nurse who is able to replace her. The head nurse takes care of the continuing education and training of the nursing staff. Head nurses and deputy head nurses are not expected to participate in routine nursing activities. The head nurse works in collaboration with the medical director, and together they provide policies and protocols, and directives and support to the team. Head nurse is in-charge of education and evaluation of the competencies of the nurses. They should not be seen as substitute for regular intensive care nursing staff but may be gradually assigned to patient care according to their actual level of training.

- a. Human resource management,
- b. Equipment and instrument management
- c. Research and development
- d. Teaching new nurses
- e. Discuss difficult cases and address ethical issues
- f. Present new equipment
- g. Discuss protocols
- h. Share information and discuss organization of the ICU
- i. Provide continuous education



## TYPE OF TRAINING AND EDUCATION PROGRAMS FOR ICU NURSES:

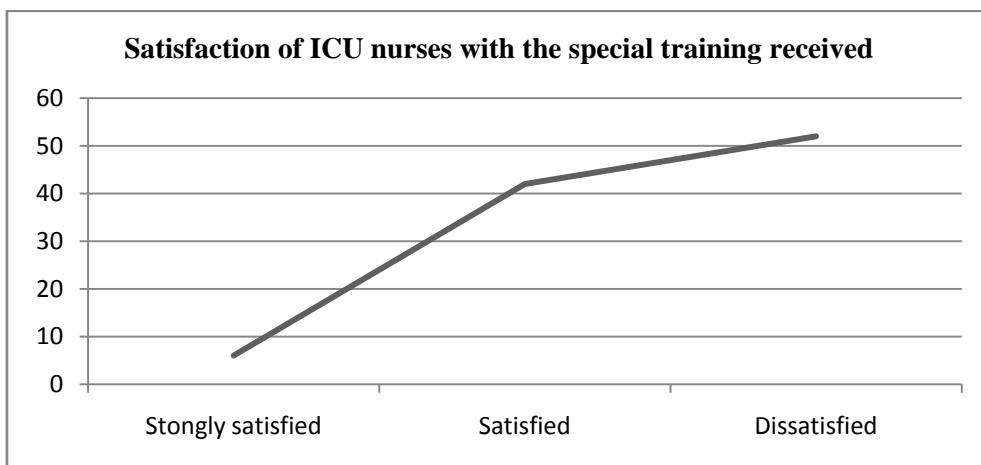
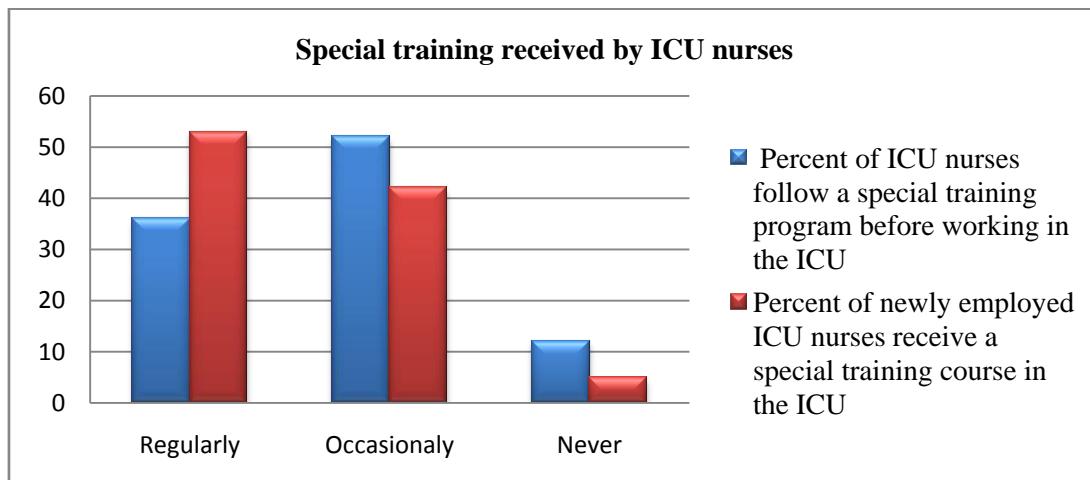
The training objective is very important because it determines the design and content of the training programs. The main objectives of staff training ICU nurses are to improve the technical and behavioral qualities of the critical care staff, formulation of objectives for different needs according to staff level and ways of achieving it. Type of training and education programs provided to ICU Nurses is as follows-

- a. In-House training Programs
- b. College-Based training Programs
- c. Training Programs Based in Academic Centers
- d. Distance Education
- e. Simulation training
- f. Training through E-Learning

## TRAINING NEEDED FOR ICU NURSES:

All patient care is carried out directly by or under supervision of a trained critical care nurse. In most of the hospitals, all nurses working in critical care a clinical critical care course is essential to complete to take full responsibility of patient care. Most of the newly joined critical care nurses are continuing education. Trained nurses are required in highly specialized techniques such as renal replacement therapy, intra-aortic balloon, pump monitoring and intracranial pressure monitoring.

Regular training	Special training
Operation theatre management	Special instruments handling
Sterilization techniques	Radiation protection guidance
Mass casualty incident handling training	Cardiac defibrillation
Hospital Waste Management	Cardiac massage
Maintenance of operation theatre	Oxygen administration
Time Management	Manual mask ventilation
Team building	Arterial puncture for blood sampling
Leadership skills	Insertion of peripheral i. v. catheter
Problem solving skills	Drug injection in to an epidural catheter.
Decision making skills	Intra-aortic balloon
Patient handling skills	Pump monitoring
Stress tolerance	Intracranial pressure monitoring.



## CONCLUSION:

The intensive care unit is equipped and staffed to provide patients treatment. In-house orientation is the most commonly used method to prepare nurses for practice in critical care area. An efficient process of communication has to be organized between the medical and nursing staff of the ICU. Tasks and responsibilities have to be clearly defined. Patients are admitted to an intensive care unit after experiencing a significant illness or injury. ICU nurses need in-house hospital-based training programs to quality of patient care and treatment. College-based training programs will help in enhancing knowledge and new skills important in ICU section. In some of these ICUs, critical care consultation is mandatory for all patients. In the near future, a specific curriculum for ICU nurses should be available. In addition to clinical expertise, some nurses may develop specific skills (e.g., human resource management, equipment, research, teaching new nurses) and assume the responsibility for this aspect of unit management. Nurses in specialty training for intensive care and



emergency nursing must be trained in ICUs under the supervision of sufficient training personnel. ICU nurses provide essential, highly rigorous patient care and form a very important part of the ICU team. Trained nursing staff, at sufficient levels for the number of patients, makes a real difference to the quality of ICU care. Therefore the optimal level of nursing staffing, training, and practical involvement in patient care is needed. An appropriate number of nurses should be trained in highly specialized techniques. The aim of this study was to provide initial information on the profile of ICU nursing in pimpri-chinchwad municipality corporation area.

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