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## Need for post-operative nurse led care treatment in context with Anesthesia in Indian Hospitals

Reena Raju<sup>1</sup>, P.Shanthi IDA Sophia<sup>2</sup>

Department of Nursing

<sup>1,2</sup>Shri Venkateshwara University, Gajraula, (Uttar Pradesh)- India

### ABSTRACT

**Background-**Post operative nurses led care is needed in all the hospitals in order to give a better overall health care facility to all the patients. An ageing population and rising healthcare expenses are posing a challenge to cost-effective hospital systems that aim to adapt by using unique organizational structures that combine different skill sets. Not only does this necessitate physician and nursing leadership, but it also necessitates innovative care paradigms. Anesthetists have expanded their involvement into the interdisciplinary field of peri-operative medicine, emphasizing the importance of collaboration and safety in health care teams. A flat hierarchy, in which each team member offers their own expertise and talents to optimize patient care, is more likely to foster shared decision-making. A coordinated, interdisciplinary team, grounded in a culture of collaboration and safety, is ideally suited for successful surgery.**Goal-**The goal of this study is to find out about the importance of post-operative nurse led care in hospitals in relation to the different regions in India.**Methodology-** To achieve the best outcomes, a mixed technique approach was adopted. Data from both qualitative and quantitative sources were utilized. This has aided in achieving the finest potential outcomes. The secondary sources were gathered from books, journals, government websites, and other reliable sources. The primary sources of data were obtained through the distribution of questionnaires to various patients in various hospitals across India. There were 200 people in the sample. **Results-** According to the findings of the study, post-operative nurse care is critical for patients' quick and long-term recovery. This is beneficial because it enables patients to comprehend the many approaches or precautions that must be taken in order to achieve the greatest therapeutic results. However, the findings show that there is currently a lack of evidence for nurse-led pre-operative and post-operative assessment services, and that additional rigorous studies are needed for all of the outcomes studied. Hospitals must collaborate effectively



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in order to enhance these areas (Nilsson, Gruen & Myles, 2020).The study is significant for the nurses, doctors and the hospital management as a whole. This is because of the fact that the hospitals need to work on their post-operative nurse led treatment facilities so that they can take care of the different complications that might arise later on in the post-operative care.**Conclusion-** The study found that anesthesia is one of the most essential aspect of post care treatment that is needed for the welfare of patients. However, this is still in the state of infancy and has to be developed in a much stronger way. This is significant for all the doctors, nurses and the hospital boards in India so that they can develops their services to a proper level.

**Keywords-**Nurse led care, Post treatment, Anesthesia, Acute Pain relief, safety measure

**Introduction** Rather of severing all ties with the patients and their families, post-operative nursing guided care involves taking regular follow-up from them and their families on their conditions. As per the studies reflected in Mometrix.com. (2021) all doctors and nurses have a duty or responsibility to keep in constant contact with their patients in order to comprehend any issues that may occur and to assist them in resolving any issues that may emerge. The term "perioperative nursing" refers to the preoperative, intraoperative, and postoperative periods of a patient's surgical procedure. As stated by Peker(2021) the postoperative phase, which begins with the patient's admission to the postanesthetic care unit (PACU) and ends after the anaesthetic has worn off enough for the patient to be safely transferred to the appropriate nursing unit, will be the subject of this video. The postanesthetic nurse must be aware of the patient's potential for problems and be prepared to intervene if the patient's condition changes.

Monitoring vital signs, airway patency, and neurologic status; managing pain; assessing the surgical site; assessing and maintaining fluid and electrolyte balance; and providing a detailed report of the patient's condition to the receiving nurse on the unit and the patient's family are all examples of nursing interventions.To be transferred from the PACU to the clinical unit or home, the patient must be stable and free of problems. However, the risk of developing problems extends beyond the initial postoperative period, necessitating continuous nursing assessment on the postoperative nursing floor. In this video, we'll focus on the PACU's immediate postoperative care.



The PACU should be in close proximity to the operation rooms. It's usually a wide open space with individual patient care areas. In most operating rooms, 1.5 to 2 patient care areas are available. A blood pressure monitor, heart monitor, pulse oximeter, oxygen, airway management equipment, and suction are all provided in each patient care space. Frequently, emergency equipment and drugs are kept in a central location. The length of stay in the PACU is decided on a case-by-case basis; there is no set minimum period of stay. The American Society of Plastic Surgeons (ASPS) Critically sick patients should not recover in the same location as ambulatory surgery patients, according to the American Society of PeriAnesthesia Nurses (ASPN). As per the opinion of Murphy et al (2021) Patients' reactions to anaesthetic agents, surgical techniques, pain management, and potential consequences are all demonstrated by registered nurses in the PACU.

Postanesthesia care is divided into three stages- Anesthesia is one of the most important aspects of elective surgery. All anaesthetists have the job or obligation of keeping an eye on the overall condition of the patients so that they can cope with the disease and live a free life.

**Phase 1** is the period immediately following anaesthesia, when the patient is waking up and requires one-on-one care. The level of consciousness, breath sounds, respiratory effort, oxygen saturation, blood pressure, heart rhythm, and muscle strength are all assessed by the PACU nurse. The patient is being prepped for a phase 2 ICU or inpatient nursing unit move.

**Phase 2** is when the patient's consciousness returns to normal and his or her pulmonary, cardiac, and renal functions are all stable. Many patients skip phase 1 and proceed straight to phase 2 in the OR; this is referred to as "fast-tracking." The patient is then transferred to phase three, either at home or in a long-term care facility.

**Phase 3** After phase 1 or 2, patients who require longer observation and intervention, such as a 23-hour observation unit or in-hospital unit, receive continued care. Nursing care will be provided until the patient has fully recovered from anaesthetic and surgery and is ready to take care of himself. However, in this study it has been aimed to find out the presence of nurse led post-operative care in the hospitals of India.



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## II. RESEARCH METHODOLOGY

**2.1 Research Approach: Descriptive survey approach** -The descriptive research method is used in this study. Because it is a fact-finding study that involves adequate and accurate findings interpretation, the descriptive research methodology is well-known. In essence, descriptive investigations are utilized to illustrate many aspects of a phenomenon. Descriptive research uses a well-established framework to depict the features and behavior of a sample population.

**2.2 Population and Sample:** The sample size of this research is 200. The area chosen for this research is Indian hospitals.

**2.3 Research Tools:** Socio demographic status of patients and the complications that they have faced in post-operative care system

**2.4 Data Collection Method:** Primary Data Collection: A primary source is a place where we get first-hand information or original facts about a subject. Data would be gathered primarily through an open-ended questionnaire that might justify the expenditure. Prior to the majority of elective surgical operations, a pre-operative assessment is performed, largely to ensure that the patient is fit to undergo surgery while also highlighting difficulties that may need to be addressed by the surgical or anaesthetic teams. Several health professionals are involved in the post-operative management of elective surgery patients, which begins during the peri-operative period.

**Secondary Data Collection:** This is a minor but crucial aspect of the research. Data would be gathered from websites, journals, books, published articles, and an organization's records in this section. Another person or group has collected and recorded this type of information, sometimes for quite different reasons.

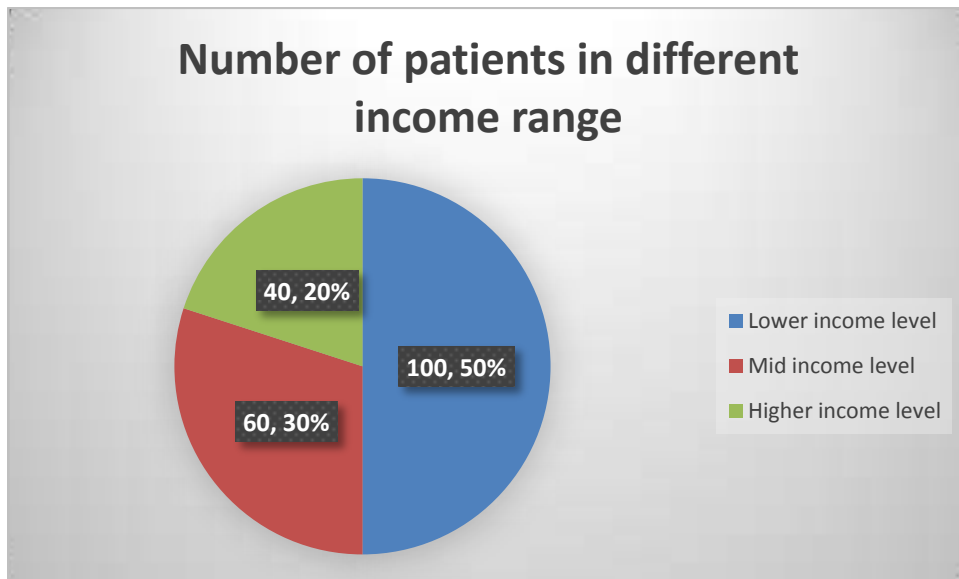
**2.5 Statistical Analysis:** The statistical analysis was carried out using SPSS. The most recent version of Statistics, 25, was used. Information about sociodemographics was acquired. Microsoft Excel and Word software were used to construct the tables and graphs. Then descriptive statistics are used to characterise frequencies and percentages for categorical variables like marital status and monthly income.

### III. RESULTS AND DISCUSSION:

#### 3.1 Comparison of income of patients for elective surgery or other diseases to avail post-operative treatment.

Income level	Lower income level	Mid income level	Higher income level
Number of patients	100	60	40

**Table 3.1** :Comparison of income of patients for elective surgery or other diseases to avail post-operative treatment.

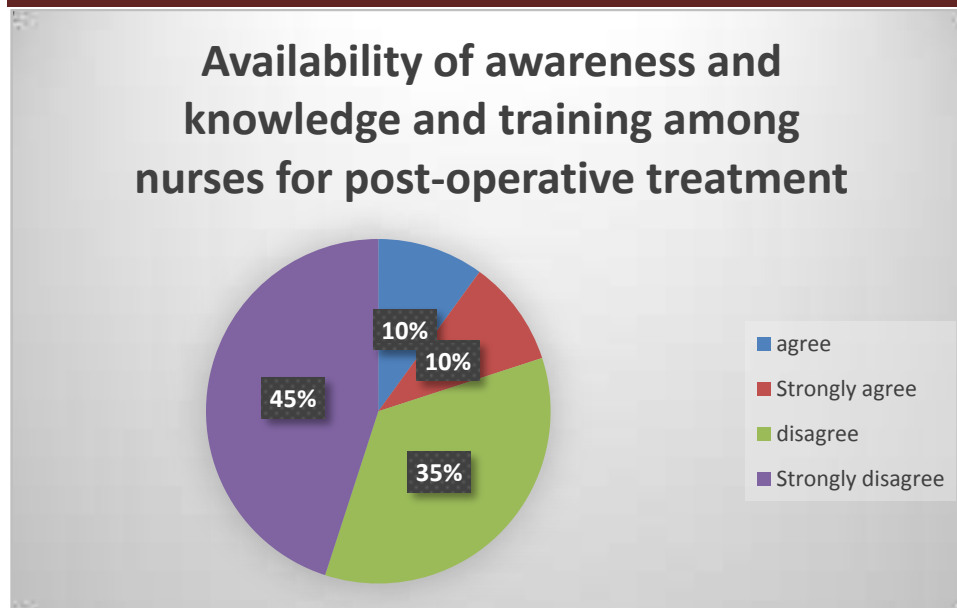


**Figure 3.1:**Comparison of income of patients for elective surgery or other diseases to avail post-operative treatment

#### 3.2- Availability of awareness and knowledge and training among nurses for post-operative treatment

	agree	Strongly agree	disagree	Strongly disagree
Number of patients	20	20	70	90

**Table 3.2:** Availability of awareness and knowledge and training among nurses for post-operative treatment



**Figure 3.2:** Availability of awareness and knowledge and training among nurses for post-operative treatment.

## DISCUSSION

Pinsornsak, Kanitnate & Boontanapibul (2021) is of the opinion that patients have a variety of problems in the post-operative period as a result of doctors and nurses who are not properly trained. As can be seen from the graph, about 90% of all respondents stated that they do not have access to any facilities for keeping track of their health throughout the post-operative period. It has been demonstrated that anesthesiologists have a significant role even in the post-operative period. This is because they must follow up with patients on a regular basis to see how they can enhance their health and assist them in overcoming any challenges or challenges they may have. Previously, researchers such as Beecher and Todd emphasised the “inseparability of anaesthesia from the overall care of the surgical patient” in 1954, as well as “the strong reason why surgeon and anesthesiologist, engaged as they are in a shared work, cannot pursue separate ends with profit.” Anaesthetists have expanded their responsibilities to include geriatric medicine and the broader multidisciplinary field of peri-operative medicine.

for surgical patients over the age of 50 and other interested parties To reduce problems and decrease hospital stays, the improved recovery after surgery (ERAS) movement has emphasised a multimodal, multidisciplinary approach including a team of surgeons, anaesthetists, and an ERAS



coordinator. Teamwork is essential, and it has been proven to provide greater results. In health teams, modern surgery and peri-operative care have been ingrained in a culture of teamwork and safety.

Non-technical abilities are becoming increasingly important to surgeons, and nurses have long provided patient-centered care, but non-clinical features are frequently overlooked by all who care for patients in the peri-operative period. The importance of patient happiness, comfort, and quality of life has been highlighted by a renewed focus on patient-centered care, as well as proven measures to quantify quality improvement initiatives. The provision of patient information is an often-overlooked aspect of ERAS. The patient is increasingly regarded an active participant in the clinical decision-making process, rather than a passive recipient of information and decisions. This necessitates taking into account the patient's age and gender, as well as their functional condition, mental health, and health literacy. Patients' satisfaction with care is dependent on having access to adequate pre- and postoperative information, as well as respect and dignity.

Shared decision-making is a desirable goal, but it is rarely realised. It's more likely to show up in a flat structure, where each team member contributes their unique expertise and talents to improve patient care.

When the operation and anaesthetic are over, the patient is usually transferred to a recovery room or a critical care unit for recovery. Full patient recovery takes significantly longer, and is arguably best defined by the patient's perception of a complete return to their pre-operative health state or to their typical self (or better). It's a complicated and delicate process involving physical, emotional, social, and habitual aspects.

### **Recovery from surgery can be divided into five phases:**

1. **Pre-recovery**, which begins prior to surgery and encompasses the patient's emotional, physical, and practical preparations for surgery as well as **post-operative recovery**.
2. commencing as soon as the patient exits the surgical room and begins to regain protective reflexes and motor activity.



3. **Intermediate recovery**, in which the patient remains in the hospital but is not as strictly observed as in phase II. Phase III is the time when the patient's coordination and physiological function return to normal, and he or she can be called "home-ready" and return home.
4. **Later recovery**, when a patient is discharged from the hospital, their care continues until they have restored their previous level of function and activity. This phase can last anywhere from hours to days and is when the patient is totally recovered and ready to return to work or normal household activities.
5. **Long-term recovery**, Restoration of functional and cognitive capacities typically takes 3–6 months, while up to 10% of patients may experience prolonged postsurgical pain.

It is critical to analyse how changes in healthcare delivery affect the quality of care by measuring and monitoring postoperative recovery, symptoms and discomfort, well-being, and weariness. At its root, surgery is a technical procedure that requires extreme concentration and attention to detail. The incisions, dissection planes, and suture placement are all important. Inadequate resection margins, leaking anastomoses, thrombosed grafts, and wound complications are all considered technical failures that could have been avoided, just as cure from various diseases can be attained with the right operation. When the surgeon meets with patients and their families in the recovery room and the clinic, the surgeon is frequently blamed for the functional and cosmetic outcomes. Audit meetings and league tables are used to evaluate a surgeon's performance. Patients are sometimes effusive in their gratitude when things go well, crediting the surgeon with the entire surgical experience, but there is nowhere to hide when difficulties arise. Of course, surgery isn't exactly a one-man show. Patient selection, as well as interdisciplinary pre-operative, peri-operative, and postoperative care, are key components of the surgical event. But surgeons will almost always have a special relationship with their patients, who are going through an ordeal, who need to be rescued from something so serious that an operation is required, who perceive the surgeon as having a sense of proximity to his or her body and privileged access to parts that even the patients do not have, and who must endure the physical and emotional toll. Little called it a "ethics of surgery," emphasising the importance the patient places on the surgeon's continuing presence throughout postoperative rounds, clinic visits, and phone conversations. The surgeon's role in





patient selection and the non-technical abilities required to be safe and effective have been intensively scrutinised in addition to mastering the performance of procedures. Situational awareness, judgement, peri-operative and intra-operative decision-making, slowing down when necessary, and communication and cooperation in the operating room have all been discussed extensively. Even surgeons' activism and efforts to improve health systems have been cited as examples of professionalism. These technical and non-technical abilities are now defined, taught, and tested during surgical training, and most professional bodies actively promote them throughout surgeons' careers. Despite the fact that these advancements are far-reaching and have substantially expanded surgeons' own conceptions of what constitutes effective practise, they do not always include surgeons' positions within larger interdisciplinary teams..Of course, practise characteristics play a big role in whether or not this matters – a surgeon who only does office operations could be able to practise excellently with a small staff. In hospital-based practise, however, with sicker patients, more difficult procedures, and a higher reliance on experienced nursing, allied health, non-surgical specialists, community-based teams, and non-medical experts, this is clearly not the case.It is essential to know how does a surgeon work effectively with the other team members upon whom patients also depend

A sense of equal standing amongst healthcare team members has been proposed as a prerequisite for genuine collaborative practise. From the standpoint of a surgeon, this concept has two flaws. The first is procedural, and it stems from a general lack of interprofessional training exposure. Although the fundamental benefits of multidisciplinary collaboration is inherent in competency-based frameworks, most surgical training programmes currently lack a clear discourse on interprofessional learning. The second issue is normative, and it has to do with the concept of equality. In surgical training and practise, collaboration and teamwork are often highly appreciated, yet the surgeon remains the primary head of any specific healthcare team. This might be interpreted as a direct result of the professional culture, which is reinforced on a daily basis by the previous experiences. Many feel that having a hierarchical structure in the operating room is in the best interests of the patients.

As a result, it appears that the prevalent model in surgery is a hierarchical style of leadership and administration, rather than the team member and collaborator position that some claim is required



for successful interprofessional practise, for both cultural and clinical reasons. Of course, this isn't always a problem, and it's best done with grace. The days of all staff jumping to attention and abandoning what they were doing to fall into line behind the surgeon as he or she appeared, unannounced, for an impromptu ward-round, yelling orders as the convoy breezed by each patient are largely gone. To be otherwise, however, significant additional adjustments to formal training are required, including rapprochement between competing discourses of professionalism in surgery and interprofessionalism outside of surgery, as well as a different style of role modelling by the most respected consultants, which is likely only possible with generational change.

### **The anaesthetist's perspective**

Preparation, as with most things in life, is essential. This applies to both the patient and the surgical team (assessment, optimization, and prehabilitation). The significance of a thorough pre-operative examination was recognised in the mid-twentieth century, but anaesthesia was not included in the pre-admission examination of elective surgical patients until the 1970s. Following that, there was a focus on coronary artery disease, with the goal of quantifying peri-operative risk and guiding the rational selection of subsequent studies. Pre-admission clinics were first created in the 1990s. These clinics can be led by surgeons, anaesthetists, or nurses, but they work best as part of a multidisciplinary perioperative system that includes physiotherapy, pharmacy, and other allied health professionals. That is, a complete post-operative care package.

Comprehensive evaluation and risk stratification; optimisation of medical conditions; referral for additional investigations and specialist review; patient education; day of surgery admission; reduced cancellations; discharge planning; and opportunities for end-of-life care are just a few of the advantages of a pre-admission review process. This has shown to be an excellent opportunity for better team-based care. As a result, not only has the quality and safety of healthcare improved, but so has employee happiness.

Those with chronic medical illnesses such as diabetes, heart failure, and frailty should focus on improving their medical problems before surgery. Pre-habilitation is a term used to describe efforts to enhance a patient's nutritional state, fitness, well-being, and medical condition prior to surgery. Although the full efficacy of pre-habilitation pathways has yet to be determined, there is mounting evidence to back them up.



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#### IV. Conclusion

Patients are at various phases of their post-hospital transition, making follow-up difficult to time. Being a part of an Enhanced Recovery After Surgery programme has ramifications for the first few weeks after discharge, which are dominated by exhaustion, pain, and new body sensations. Patients often feel alone as a result of their condition, and the phone call helps to alleviate this feeling. The nurse must contact the patient because the patients do not want to bother the personnel. The study has reflected that in Indian hospitals the presence of after surgery or post elective operation nurse led care facilities are not much well developed. It is for this reason that all the patients have to be treated with extra additional care so that they are able to get some good treatment even after the completion of their surgeries or their operations.

#### V. IMPLICATIONS OF THE STUDY

**NURSING PRACTICE:** - Nursing professionals will be able to identify ways to teach and improve the knowledge and attitude of nursing students regarding post –operative nurse led care treatment.

**NURSING EDUCATION:** - As a nurse educator, there are several possibilities to teach nursing students about life skills that enable them to adopt positive behavior and adjust to their circumstances.

**NURSING RESEARCH:** - The findings of the study add to the scientific body of knowledge, which can be used to conduct further research.

#### VI. RECOMMENDATIONS:

##### **Regular awareness training program**

All the hospitals must develop some regular research training and awareness campaigns so that they are able to treat their patients in a better way by focusing on the post-operative treatment facilities.

##### **Awareness training program for patient's**

All the patients who are not much literate must be helped by the doctors to know about the benefits that they can get from the post-operative nurse led care treatment. This will help them to get the needed educational facilities for asking to get that help from the nurses and also to help them in order



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## VII. ACKNOWLEDGMENT

We appreciate the Colleges of Nursing for allowing us to conduct our research study, as well as all of the teachers who guided and supported us throughout the process.

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