

# Impact of Structured Education on Knowledge and Practice Regarding Venous Access Device Care among Nurses

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**Abstract:** *Venous access devices are used to manage patients undergoing long term treatment, especially chemotherapy. Though it has many advantages, they are not free from complications. Sepsis, thrombotic complications, local tissue damages are more common complications. Aim: the main of study was to assess the impact of structure education on knowledge and practice regarding venous access device among nurses. Methodology: The quasi-experimental study with pre-test-post-test design was used. The sample size for the study was 60. In this, 30 were in experimental group and 30 were in control group. The samples were selected from the cancer units. Findings: The maximum of 43.33 % of samples scored between 0-13 (Poor) in the knowledge pre-test before structured education to the experimental group and 65 % samples scored between 18-25 ( Good) in the post-test after structured to experimental group. In control group, the mean score of knowledge score was increased from 15.3 to 16.4 in the post test. In Experimental group of the study, the mean score of knowledge regarding venous access device care was increased from 14.6 to 21.3 in the post-test after structured education. In experimental group, the maximum of 75 % of samples scored between 14-17 (Average) in the practice pre-test before structured education and 48.33 % samples scored between 18-25 (Good) score in the practice post-test score after structured education. In control group, the mean score of practice score was increased from 15.4 to 15.5 in the post test. Conclusion:- From all the above findings it can be concluded that the structured education was effective on knowledge and practice of staff nurses regarding venous access device care.*

**Keywords:** Structured Education, Knowledge, Practice, Venous Access Device Care, Nurses.

## 1. Introduction

Learning is the addition of new knowledge and experience. Interpreted in the light of past knowledge and experience. Teaching and learning is an integral part of nursing. Nurses have the responsibility to educate patients related to various aspects and keep themselves updated. Various teaching strategies are used to increase knowledge, such as lecturing, Demonstration, discussion and self-education. These methods of self-education has an advantage over the others as the learner can educate himself at his own pace and it also stresses on rereading [1]

There are various uses of central lines. Central lines are used for administration of I.V.fluids, antibiotics, blood products, total parenteral nutrition, analgesics. The main use of central line in oncology is the administration of chemotherapy. Central line is also used in laboratory blood sampling, dialysis/ pheresis. It is also used in measurement of central venous or pulmonary wedge pressure, determination of cardiac output, or rapid infusion of crystalloids. Venous access devices are also used in large volume infusion or hemodynamic monitoring.

Cancer is a group of diseases with similar characteristics, which can occur in all living cells in the body and different cancer types have different natural history. The myth that cancer affects people mostly in the developed countries is being broken by the fact that, of the 10 million new cancer cases seen each year worldwide, nearly 5.5 million are in the less developed countries. Cancer is the second most common cause of death in the developed world and a similar trend has emerged in the developing countries too.

The development of chemotherapy administration and total parenteral nutrition necessitated the need to provide central venous access for a prolonged period of time. Central venous access devices are one of the most significant advances in the field of intravenous therapy once reserved for selected patients with complex problems; central venous access now comprises a market which exceeds over \$580 million in revenues and over 500,000 devices sold yearly in the United States. According to a new global report series by iData Research, the leading authority in medical device, dental and pharmaceutical market research, the U.S. market for vascular access devices and accessories was valued at just over \$3 billion in 2009 and is estimated to reach over \$4.6 billion by 2016. The peripherally-inserted-central-catheters (PICCs) and midlines market is expected to see double-digit growth. The report also states that the antimicrobial central venous catheter (CVC) market was more than double the value of the conventional Central Venous Catheter market in 2009. In addition, growth of the antimicrobial Central Venous Catheter market is exceeding that of the conventional market [2].

In view of this, Rickard (2003) stresses the need for training and a systematic updating of protocols so as to ensure that all nurses carry out procedures in the same way and to promote easier monitoring and development. Besides lack of training, understaffing is also a factor which might hinder nurses from applying good aseptic measures in caring for patients with a Central Venous Catheters, especially in the critical care setting. A case-control study by Fridkin and Pear which demonstrated that the patient-to-nurse ratio was an independent risk factor for Central Venous Catheter related

bloodstream infection, even after controlling for Total Parenteral Nutrition use, mechanical ventilation and the period of hospitalization[3].

Staff nurses working in the clinical field are said to be backbone of the hospital. Most of the care of patients is taken by the staff nurses working in the hospital. She is the person who stays most of the time with patient and their relatives who are present in the hospital or comes in the clinic with patients. Obviously, the role of nurse is increased due to long stay with the patient. She has to take care of patients as well as she has to provide health education to patient and their relatives regarding necessary care for the prevention of complications progressive to disease.

To prevent from these complications, there is need for daily flushing, routine sterile dressing changes, and restrictions on physical activities, such as swimming, contact sports, and rough play for adolescents or children.

Again, the role of nurse is important for management of central venous access device. She has to perform routine dressing and flushing of the device. She has the important role in health education of patient and caregivers regarding venous access device care.

## 2. Need for the Study

Patient care in hospitals often involves insertion of a non-tunneled central venous catheter for administering drugs, intravenous solutions, or total parenteral nutrition, especially in cancer patients who need long term care. A study was conducted by Pittet et al, 1994 which suggests that these devices are not without serious risk, however, and they require constant vigilance and scrupulous care to prevent life-threatening complications. The major risks of these devices are infection and another one is occlusion of catheter. A study suggests that some local or systemic infection occurs in between 1 and 14% of patients with a central venous catheter [4].

Infection is the most frequent complication related to central venous catheters and usually occurs when microorganisms on the patient's skin or health cares' hands migrate down the catheter tract or through its hubs and subsequently colonize the catheter. Infections are usually caused by bacterial (most notably Staphylococcal) species, but fungal infections are also common, especially in immune suppressed patients.

The effects of such infections include increased morbidity and mortality, discontinuation of central venous therapy, and extra costs in antibiotic delivery and prolonged hospitalization. Nursing care and management of these devices is complex, and many controversial practice issues challenge nursing practitioners.

In India there is unawareness of physician as well as poor nursing care related to venous access device care, experience with insertion of Central Venous Access Device is lacking in our country. Physician awareness, along with dedication and training of personnel involved in catheter care are necessary to establish a successful programme. The nurses have a major role in prevention of complications of venous access device. Centres for catheter care are available only few of

the hospitals like Tata Memorial Hospital, Mumbai; but the nurses who are working in the other area are unaware about the care of venous access device. Scientific principles and research help us to direct our practice and our decisions. Here Investigator have a opportunity to provide some knowledge to the staff nurses regarding venous access device care and also direct attention of the hospital administration towards the continuing education programme.

## 3. Review of Literature

According to Shinde M (2007) Review of literature is important for having a broad understanding of the problem. "The material gathered in literature review should be an integral part of research data. Since what is found in the literature does not only have the influence which is important for formulating the problem and design of research, but also provides useful comparative material, when the data collected in the research is analyzed [5]." A review of related literature gives an insight into the various aspects of the problems under study. The review serves as an integrated function that facilitates the accumulation of knowledge. Hence, review of literature is important to a research in order to know what has been established and documented [5].

### 3.1 Literature related to structured education

Kadam, A.(2014) found that Structured education programme was highly effective to improve the knowledge score and to improve the attitude score of subjects/ caregiver towards colostomy care of patient [6]. Anjum,S.(2014)conducted study to assess knowledge of contraceptives methods and appraisal of health education among married women and concluded After the health education married women knowledge was improved to 100% about female sterilization followed by condom 99%, skin implants 86%, oral pills 85% and emergency contraceptives 85%.Sociodemographic variable were significantly associated with existing knowledge and level of married women specially age at marriage, age at first child, occupation,, income ,education [7],[8]. Babu, R. L. (2014) the findings of the study concluded that care takers had inadequate knowledge regarding non-curative care of terminally ill cancer patients. The planned education programme on non-curative care of terminally ill cancer patients was highly effective in improving the knowledge of care takers regarding non-curative care of terminally ill cancer patients [9]. Shinde, M.(2014) concluded that demonstration regarding feeding of hemiplegic patient among caregivers was effective in increasing the skill of the caregivers regarding feeding of hemiplegic patient [10]. A study recommends for training programme for members for the reduction of catheter related blood stream infection [11]. Another study was concluded recommends for interventions like slideshows, practical demonstrations and guidelines for reduction in catheter-related blood stream infections [12]. Education about connectors has implications for nursing associated with catheter-related bloodstream infections, occlusion and thrombosis. This study identified a significant need for further nursing education and research regarding the types, maintenance and care of intravenous connectors [13].

### 3..2 Literature related to venous access device and its complications

According to the IHI (Institute of Healthcare Improvement (2008), approximately 90% of all Central Line Associated Blood Stream Infection occur due to Central Venous Catheter use. These infections result in increased lengths of stay, increased costs, and higher mortality rates. Costs attributed to Central Line Associated Blood Stream Infection range from \$3,700 to \$29,000 per episode, and associated mortality rates range from 4% to 20%. It has been estimated that between 500 to 4000 patients die annually from blood stream infections related to Central Venous Catheter use [14].

A descriptive study was conducted to examine outpatient oncology satisfaction/dissatisfaction with venous access devices (VADs), identify positive and negative experiences, and determine their overall effect on quality of life. The study was conducted in outpatient oncology clinics in the United States. Sampling technique used was convenient sampling. 24 Samples were selected for the study that were having venous access device and receiving chemotherapy treatments. A questionnaire was given to the samples during their visit. Findings of the study showed that patients were extremely happy with VADs. The top three benefits were (a) decreased pain compared to venipuncture, (b) the need for fewer needlesticks, and (c) quicker blood draws for laboratory analysis. Negative experiences were infrequent, but 29% of subjects cited monthly heparinization, sleep disturbances, and site soreness following chemotherapy treatments. Overall, 92% stated that the VAD had improved their quality of life. The study concluded that Chemotherapy outpatients were extremely happy with their VAD, found many benefits, and stated that it improved their quality of life. The study recommended that nurses need to support the use of VADs early with patients receiving multiple chemotherapy treatments on an outpatient basis. The study also recommends for further research and education regarding heparinization and interventions to reduce site soreness and sleep disturbances[15]. A descriptive, correlational quality-assurance study was done to examine patient and nurse satisfaction with three types of venous access devices (VADs)--port, Groshong, and Hickman--and also to identify the problems and benefits experienced with each type of device. The setting of the study was an outpatient oncology/ hematology clinic in a midwestern United States academic hospital. Samples for the study were 85 patients who had a port, Groshong catheter, or Hickman catheter and the clinic nurses who provided their care were taken as convenience sample. Self-report questionnaire was given to the samples and also to the clinic nurses who was caring those patients. Findings of the study showed that patients' reports of benefits did not differ by device, but they reported fewer blood-drawing problems with ports than with Groshong or Hickman catheters. Patients and nurses reported infections and clots more often with Groshong catheters than with the other two devices; Patients indicated that healthcare workers seemed most knowledgeable about Hickman catheters. Patients with ports reported more problems with access to the device, development of hematomas, and anxiety. Nurses reported more flow rate problems with Groshong catheters than with Hickman catheters. Patients

and nurses reported no flow rate problems with ports. The study concluded that, each device was associated with a specific problem, yet in the global satisfaction ratings, patients expressed the greatest satisfaction with Hickman catheters and ports. Nurses tended to be least satisfied with Groshong catheters. The study recommended for nurses to ensure that other care providers have appropriate information on the care of VADs. This could be accomplished via written instructions on VAD care and follow-up telephone calls to care providers. The study also recommended for continued patient education on VAD care to minimize complications. The selection of an appropriate VAD should be based on the patient's best interests rather than on nurses' preferences [16].

A prospective study was done to determine the clinical epidemiology and outcomes of nosocomial bloodstream infections caused by short- and mid-line peripheral venous catheters among a group of non-intensive care unit patients. Study was conducted in Infectious Diseases Service, Hospital and de Bellvitge, Hospital, from Barcelona, Spain. Cases of peripheral venous catheter-related blood stream infections (PVC-BSIs) were compared to cases of central venous catheter-related bloodstream infections (CVC-BSIs). A study was conducted from October 2001 to March 2003. 150 cases with vascular catheter-related blood stream infections were identified. Among those patients, 77 were PVC-BSIs and 73 were CVC-BSIs. The findings of the study showed that, patients with PVC-BSIs more often had the catheter inserted in the emergency department, had a shorter duration from catheter insertion to bacteraemia and had *Staphylococcus aureus* (33 vs 53%) more frequently as the causative pathogen. The study concluded that Bloodstream infections remain underestimated and potentially serious complications of peripheral vascular catheterisation. The study recommended that Targeted interventions should be introduced to minimise this complication [17].

### 3.3 Literature related to care of venous access device for prevention of complications.

A prospective study was conducted to determine risk factors responsible for central venous catheter related blood stream infection. Studies were done by critical review of published studies of risk factors for central venous catheter related blood stream infection and randomized trials of a preventive measure. The findings of the study showed that a significantly increased risk of catheter-related bloodstream infection was associated with inexperience of the operator and nurse-to-patient ratio in the intensive care unit, catheter insertion with less than maximal sterile barriers, placement of a CVC in the internal jugular or femoral vein rather than sub-clavian vein, placement in an old site by guide-wire exchange, heavy colonization of the insertion site or contamination of a catheter hub, and duration of CVC placement more than 7 days. Formal training in CVC insertion and care, use of maximal sterile barriers at insertion, use of chlorhexidine rather than povidone-iodine for cutaneous antisepsis, applying a topical anti-infective cream or ointment or a chlorhexidine-impregnated dressing to the insertion site, and the use of novel catheters with an anti-infective surface or a contamination resistant hub had shown significant reduction in risk. The study recommended

for further studies of sufficient size which includes all potential risk factors, including insertion site and hub colonization, insertion technique, and details of follow-up care, which will enhance understanding of the pathogenesis of CVC-related bloodstream infection and guide efforts to develop more effective strategies for prevention[18].

A survey was conducted to examine whether infection prevention practices had been adopted in United States and to examine factors that fostered the implementation of the recommended practices. Surveys were given to a random sample of 600 infection control co-ordinators. Surveys were constructed to measure practices associated with prevention of central line infections. The study showed that most of the hospitals were applying practices of sterile barrier precautions, and applying chlorhexidine on the insertion sites of central venous catheters. The study suggest that hospitals should be investigating what practices are working and implement them in order to better care for patients [19].

A randomized controlled study was done to determine use of catheters impregnated with antimicrobials in reduction of blood stream infection. Investigator randomly allocated 158 adults into receiving standard triple-lumen polyurethane CVC (control group) or indistinguishable one impregnated with chlorhexidine and silver sulfadiazine. The findings of the study showed that, on removal, antiseptic-coated catheters were significantly less likely to be colonised than control catheters and nearly fivefold less likely to produce a blood stream infection. This implies preventing 3 infections for every 1000 catheter-days [20].

### 3.4 Statement Research Question

“A study to assess the effectiveness of structured education on knowledge and practice regarding venous access device care among staff nurses working at cancer units of selected hospitals.”

### 3.5 Objectives

- 1.To assess the knowledge and practice of staff nurses regarding venous access device care working at cancer units of selected hospitals before and after education.
- 2.To find out association between knowledge score and practice score regarding venous access device care among staff nurses and selected demographic variables.

### 3.6 Assumptions

1. Staff nurses of selected hospitals have some knowledge regarding venous access device care.
2. Year of working experience in cancer hospital is directly proportional to knowledge & practice regarding venous access device care.

### 3.7 Hypotheses

H0 There will be no significant difference between pre and post test knowledge and practice score after structured education regarding venous access device care in experimental and control group.

H1 There will be significant difference between pre and post test knowledge practice score after structured education

regarding venous access device care in experimental and control group.

### 3.8 Ethical Aspects

The ethical aspects regarding approval were considered by ethical committee when presented before them and committee had given clearance at institutional level. All participants' willingness to participate was taken. The participants were having freedom to withdraw from the study. The participants were assured for the confidentiality and safeties of the participants were maintained.

## 4. Research Methodology

The study was conducted into three phases.

**PHASE I-** It includes assessment of knowledge and practice of staff nurses regarding venous access device care.

**PHASE II-** It includes the delivering of structured education to staff nurses regarding venous access device care.

**PHASE III-** It includes the assessment of knowledge and practice of staff nurses regarding venous access device care after structured education.

## 5. Research Approach

According to Shinde M (2007), Research approach refers to the overall plan for obtaining answers to the research questions and for testing the hypothesis. The research designs spells out the strategies that the researcher adopts to develop information that is accurate, objective and interpretable and it helps the researcher in selection of subjects, manipulation of independent variable, observation of a type of statistical analysis to be used to interpret the data [5]. The research method adopted for the present study is experimental approach one group pre test post test research design were used.

### 5.1 Sample and Sampling Technique

In this study, staff nurses who are working in the various oncology units of hospital are selected by purposive sampling technique by the investigator.

### 5.2 Sample Size

Sample size for this study was 60 staff nurses from selected cancer hospital. Out of this sample, 30 were experiment group and 30 were control group. The equal number of sample was in control group and experiment group.

### 5.3 Sampling Criteria

The following criteria are set to select samples.

#### Inclusion criteria:

1. Staff nurses who have completed diploma in general nursing.
2. Staff nurses who have completed graduation in nursing.
3. Staff nurses working in cancer units of selected hospitals.
4. Nurses who are willing to participate in the study.

**Exclusion criteria:**

1. Nurses who have completed specialized course in venous access device care.
2. Nurses who are ANM.
3. Nurses who are M.Sc. (Nursing) in oncology.
4. Nursing superintendent.
5. Nursing Tutor.

**5.4 Description of the Tool**

Tool consists of three sections. First section consists of demographic data of staff nurses. Second section consists of structured questionnaire with multiple choice questions. Third section consists of observation checklist to assess the practice of venous access device care.

**5.5 Scoring**

The checklist consists of two options; performed and not performed, for all 25 items. Score for 'performed' is '1'. Score for 'not performed' is '0'. The scores range from minimum zero to maximum 25.

The levels of practice have been classified as:

- Poor Practice (0-13)
- Average Practice (14-17)
- Good Practice (18-25)

**6. Findings, Discussion**

In the present study, out of 60 subjects, the majority of the subjects i.e. 70 % were in the age group of 21-30 years and 30 % were in the age group of 31-40 years. In the study, females were 83.33 %. The majority of the subjects i.e. 56.67 % were having Diploma in general nursing and 43.33 % were Basic B.Sc. in Nursing. In clinical experience, the majority of subjects 71.67 % were having clinical experience of 0-5 years of clinical experience, 15 % were having experience of 5-10 years and 13.33 % of subjects were having 10-15 years of clinical experience.

**Section II:**

In experimental group, the maximum of 43.33 % of subjects scored between 0-13 (Poor) knowledge score in the pre-test before structured education and 65 % subjects scored between 18-25 (Good) knowledge score in the post-test after structured education. In control group, the mean score of knowledge score was increased from 15.3 to 15.6 in the post test. In Experimental group of the study, the mean score of knowledge regarding venous access device care was increased from 14.6 to 21.3 in the post-test after structured education. In control group of the study, 'p' value was 0.096 which is more than 0.01. Since the 'p' value was more than 0.01. In Experimental group of the study, 'p' value was 0.00. Since, the 'p' value was less than 0.01; the null hypothesis is rejected at 99 % level of confidence. It indicates that the structured education is effective in increasing the knowledge scores of subjects regarding venous access device care.

**Section III:**

In the experimental group, the maximum of 75 % of subjects scored between 14-17 (Average) practice score in the pre-test before structured education and 48.33 % subjects scored between 18-25 (Good) practice score in the post-test after structured education. In control group, the mean score of

practice score was increased from 15.4 to 15.5 in the post test. In Experimental group of the study, the mean score of practice regarding venous access device care was increased from 15.4 to 19.6 in the post-test after structured education. In control group of the study, 'p' value was 0.514 which is more than 0.01. Since the 'p' value was more than 0.01. In Experimental group of the study, 'p' value was 0.00. Since, the 'p' value was less than 0.01; the null hypothesis is rejected at 99 % level of confidence. It indicates that the structured education is effective in increasing the practice scores of staff nurses regarding venous access device care.

**Section IV:**

In association of age of the subjects with pre-test knowledge score, the calculated value  $\chi^2$  (0.185) is greater than the table value at 5 % ( $p > 0.05$ ) confidence level. It means there is no significant association between age of the subjects and pre test knowledge score regarding venous access device care.

**7. Discussion**

The present study showed that there is significant association of professional qualification of the staff nurses with pre test knowledge score regarding venous access device care. The present study showed that there is significant association of clinical experience of the staff nurses with pre test knowledge score regarding venous access device care.

The present study showed that there is no significant association of age and sex of the staff nurses with pre test knowledge score regarding venous access device care and there is no significant association of age, sex, professional qualification and clinical experience of the staff nurses with pre test practice score regarding venous access device care. In control group, the mean score of practice score was increased from 15.4 to 15.5 in the post test. In Experimental group of the study, the mean score of practice regarding venous access device care was increased from 15.4 to 19.6 in the post-test after structured education.

In control group of the study, 'p' value was 0.514 which is less than 0.01. In Experimental group of the study, 'p' value was 0.00. It clearly indicates that the structured education is effective in increasing the practice scores of staff nurses regarding venous access device care.

The pediatric nurse considers care and the developmental needs of the infant or toddler. Many of the normal developmental tasks of the infant and toddler are in conflict with safe central line care. Toddlers may remove their diapers and further colonize their environment. The tubing used for the solution infusion into the central venous catheters has obvious appeal for the hands and mouth of an infant or toddler. Education of paediatric nurse also helps to prevent from the complication of central venous catheters. (Long, Carol A.; Stashinko, Elaine E.). The right to practice the Peripherally Inserted Central Catheter (PICC) technique, mainly in neonatal intensive care units, was achieved by nursing and consists of efforts that lead to a new challenge: the improvement of the practice of this procedure. The study determined and evaluated the theoretical and practical knowledge acquired by nurses in qualification courses concerning aspects of PICC line insertion in the case

of newborns. PICC line insertion demands technical expertise, clinical judgment skills and conscious, safe and efficient decision-making. This is a highly complex and specialized practice, and professionals who perform it should acquire theoretical and practical knowledge in qualification courses and incorporate knowledge from other fields previously acquired over the course of their education. The qualification courses provide nurses the basic theoretical and practical support, which enables them to safely and competently perform the procedure. (Solange Antonia Lourenço)

From all the above findings it can be concluded that structured education improves the knowledge and practice regarding venous access device care. The nurse has the major role in the prevention of complications regarding venous access device. Effective practice of venous access device care prevents from the complications. In this study too, significant improvement in the knowledge and practice of staff nurses regarding venous access device care was evident. Such interventions can improve the practices of staff nurses. Suitable continuing education packages need to be developed and feasibility of their implantation and effectiveness requires in-depth studies.

Demonstration method teaches by exhibition and explanation. It is an explanation of a process which explains the learner in the art of careful observation, which is essential to a learner. Demonstration provides an opportunity for observational learning; it commands interest by use of concrete illustrations. The learner not only can hear the explanation, but also can see the procedure or process. As a result, demonstration method projects a mental image in the learner's mind, which fortifies verbal knowledge. The demonstration method has universal appeal because it is understandable by all. The demonstration method is adaptable to both groups and individual teaching. It activates several senses; teaches by exhibition and explanation. This increases learning because the more senses are used with the opportunities for learning. It trains the learner in the art of careful observation, a quality that is essential to become an expert. It is the method in itself learning through observation and it uses several senses. It clarifies the underlying principle by demonstrating the 'why' of the procedure. It is a visualized explanation of a fact or idea or process. It shows how certain things are done, and has a threefold approach, telling, showing and doing. In performing a good demonstration, rapport between the learner and teacher must be established, and the demonstrator must know his subject thoroughly and must be able to show it clearly to all observers.

John (1993) reported that a more individualized form of disseminating information such as various A.V. aids, flash cards, planned education help to increase the knowledge and practices. No any other researches or evidences found regarding age, sex of staff nurses regarding significant in knowledge and practice in nursing field.

## 8. Conclusion

Structured education was effective on knowledge and practice of staff nurses regarding venous access device

working in oncology units. Staff nurses working in the hospital setting need to know about complications due to use of venous access device. Staff nurses should know how to prevent the patient from complications. One of the roles of nurse is to prevent the patient from complications. For that purpose, the nurse should know various methods for the prevention of complications. These methods can be obtained by improving the knowledge and practice with the help of structured education given at periodic intervals. In this study too, significant improvement in knowledge and practice regarding venous access device care is observed after imparting structured education. Such structured education will improve the knowledge and practice of staff nurses. Suitable intervention packages need to be developed and in-service education need to be given periodically for the effectiveness of qualitative nursing services.

## 9. Scope of Study

1. These study findings will indicate the existing knowledge of staff nurses regarding venous access device who are working in cancer units.
2. These study findings will indicate the existing practice of staff nurses regarding venous access device care who are working in cancer units.
3. These study findings will indicate the need for knowledge regarding venous access device care among staff nurses who are working at cancer units
4. These study findings will indicate the need for improvement in practice regarding venous access device care among staff nurses who are working at cancer units.
5. The study will motivate the nurses to know more about venous access device care.
6. The study will motivate the staff nurses to acquire skill regarding venous access device care.
7. The study will indicate the need for specialized education required for nurses regarding venous access device care.
8. The study will get attention of hospital administrator towards need of continuing education of staff nurses regarding venous access device care.

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