

## HAND ME AN ISOBAR METHOD OF CLINICAL HANDOVER AND LEVEL OF SAFE NURSING PRACTICE AMONG NURSES WORKING IN ICU

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### ARTICLE INFO

#### Article History:

Received 27<sup>th</sup> April, 2017

Received in revised form

19<sup>th</sup> May, 2017

Accepted 26<sup>th</sup> June, 2017

Published online 31<sup>st</sup> July, 2017

#### Keywords:

Shift to Shift Handover,  
Safe Nursing Practice,  
Intensive Care Unit Nurses.

### ABSTRACT

**Aim of the study:** To assess the effectiveness of HAND ME AN ISOBAR Technique of clinical handover on level of safe nursing practice during shift to shift hand over among ICU nurses.

**Background:** Nurses are in the first place in the direct care of the patients. Patients spend most of their time with nurses during their hospital stay, especially in intensive care units. An effective inter-shift information communication is necessary to maintain care continuity and improve quality care. The proper standardized method of medical hand over will provide good quality care to the patients without missing patient information to the other shift staffs. Unfortunately nurses are not trained to use standardized handover technique in our country.

**Design:** True experimental pre-test – post-test design.

**Methods:** Probability sampling technique - Simple random sampling using lottery method was used. A total of 60 nurses participated in the study. Nurse safe practice Evaluation Checklist was used to assess the safe nursing practice for data collection.

**Result:** The pre-test means score of safe nursing practice was  $6.63 \pm 1.40$  and the post test mean score was  $19.17 \pm 1.08$  among experimental group. The mean effective score was  $12.53 \pm 1.59$ . The calculated paired 't' value is 43.130 was found to be statistically significant at  $p < 0.001$  level.

**Conclusion:** This study indicates that the HAND ME AN ISOBAR Technique of shift handover is an effective technique in improving the safe nursing practice. The standardized shift to shift handover technique will improve the safe nursing practice.

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**Citation:** Ramya, S., Dr. Aruna, S. and Dr. Mangala Gowri, P. 2017. "Hand me an isobar method of clinical handover and level of safe nursing practice among nurses working in ICU", *International Journal of Development Research*, 7, (07), 14073-14075.

### INTRODUCTION

Delivery of safe and proper health care came to be extremely important for the patient's health and also the same is necessary to achieve the customer's satisfaction in health care industry. Previously people believed that hospitals are the safest place for the medical treatment. But today, due to the interacting medical error, their thoughts have been changed. Their expectations are also growing high due to technological advancement, consumer rights, and educational qualification of the consumers. Nurses are in the first place to care the

patient and patients spend most of their time with nurses during their stay in the hospital, especially in intensive care unit. Nurses hold central place to communicate with all health care professionals, patient and patient's relatives. These can be done successfully with patient satisfaction only if there is an effective inter-shift communication. Safe nursing practice is the nursing care provided to the patient that ensures the good quality of care on timely basis depending on the needs of the patient. Nurses can provide a good quality of care when they are well versed in their health information of their patient and identify the need of the each patient individually. At the end of the shift, a nurse must communicate their patient details

clearly to the next staff. The effective communication is very important in health care setting and however the importance of effective communication in ICU is double fold because ICU Patients are vulnerable to medical error and Self care deficit of the patient.

## Background

A nurse during her clinical practice perform various work, the one among them is the clinical handover. Nurses are in place to provide direct care for the patients. Handing over the patient from one shift to another shift is a place where the gap is developed between the nurses and the patient due to the lack of communication between the nurses. Shift-to-shift nursing handovers have been identified as high risk areas in which clinical handover solutions are urgently required to improve the quality of nursing care, to have the feeling of job satisfaction among nurses. To overcome the problem the standard intervention for shift to shift handover is developed. This will reduce the gap between the nurses and patient in providing care through the effective communication process between the Intershift nurses. The studies conducted by the Joint Commission International (the WHO Collaborating Centre for Patient Safety Solutions) revealed that poor information communication is the main risk factor for 65% and the contextual risk factor for 90% of sentinel events. Information communication happens repeatedly among healthcare providers. One of the instances of information communication in healthcare settings is during the nursing shift handovers. Zavalkoff, *et al* (2011) reported that use of a simple tool during handover of pediatric postcardiac surgery patients resulted in a more complete exchange of critical information with no significant prolongation of the handover duration. A study by Nagpal, *et al* (2011) had shown that postoperative handover is characterized by incomplete transfer of information and failures in the performance of key tasks if there is no standardized tool for hand over. Aim of the study: To assess the effectiveness of HAND ME AN ISOBAR Technique of clinical handover on level of safe nursing practice during shift to shift hand over among nurses in selected hospitals, Chennai.

## MATERIALS AND METHODS

Total 60 nurses working in ICU of a two different teaching hospital participated in the study for experimental and control group. True experimental pre-test – post-test design was carried out and samples were selected with Probability sampling technique - Simple random sampling using lottery method. The tool consisted of 20 item checklist for data collection. The tool was developed through extensive review of literature and seeking opinion from experts. Reliability of the tool was 0.91. Ethical consideration: The project has been approved by the ethics committee of the institution. Informed consent was obtained from the participants before initiating the study.

## RESULTS

**Section 1:** Frequency and percentage distribution of demographic variables of nurses in experimental and control group showed that in the experimental group, majority of 25 nurses (83.33%) were in the age group of 21 – 30 years, 21 nurses (70%) were female, 15 nurses (50%) had 1 – 3 years of

overall experience in nursing at hospitals, 15 nurses (50%) had a work experience of 1 – 3 years in ICU, 19 nurses (63.33%) have qualified as diploma in nursing and 22 nurses (73.33%) were satisfied with monthly working shift pattern. In control group, majority of 28 nurses (93.33%) were in the age group of 21 – 30 years, 27 nurses (90%) were female, 14 nurses (46.67%) had 6 – 12 months of overall experience in nursing at hospitals, 15 nurses (50%) had a work experience of 6 – 12 months in ICU, 20 nurses (66.67%) were. diploma in nursing and 25 nurses (76.67%) were satisfied with monthly working shift pattern

## Section 2

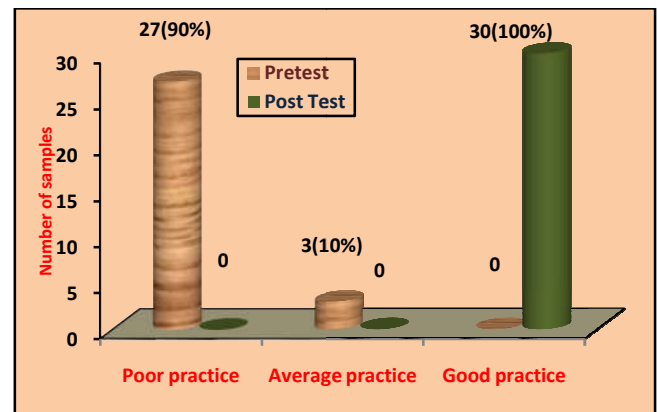


Figure 1. Level of safe nursing practice in pre test and post test for the experimental group

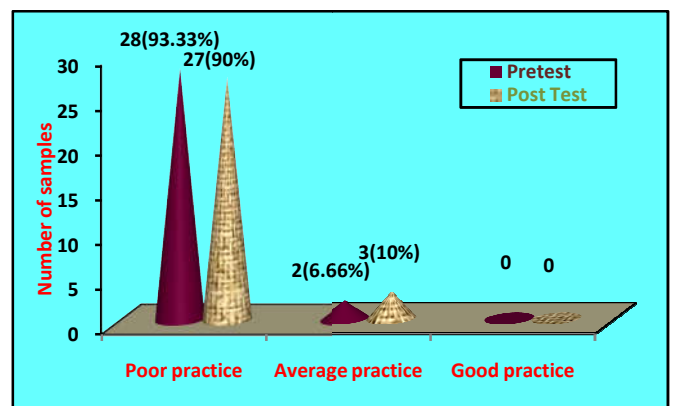


Figure 2. Level of safe nursing practice in pre test and post test for the control group

**Section 3:** The results of the Mc Nemar test which revealed that the performance level of the nurses, which was measured using the Nurses Safe Practice Evaluation Checklist (NSPEC) increased significantly after the intervention at the level of  $P < 0.05$ .

**Section 4:** The pre-test and the post test mean score of safe nursing practice among experimental group was  $6.63 \pm 1.40$  and  $19.17 \pm 1.08$  respectively. The mean effective score was  $12.53 \pm 1.59$ . The calculated paired 't' value of  $t = 43.130$  was found to be statistically significant at  $p < 0.001$  level. This clearly indicates that the HAND ME AN ISOBAR technique administered to nursing in the experimental group was found to be effective in improving the level of safe nursing practice among nurses. The pre-test the mean score of safe nursing practice in the experimental and control group was  $6.63 \pm 1.40$  and  $5.63 \pm 1.86$  respectively.

The calculated unpaired 't' value of  $t = 2.347$  was found to statistically significant at  $p < 0.05$  level. This clearly indicates that there was significant difference in the pre-test level of safe nursing practice among nurses in the experimental and control group. Whereas in the post test the mean score of safe nursing practice in the experimental group and control group was  $19.17 \pm 1.08$  and  $6.0 \pm 1.91$ . The calculated unpaired 't' value of  $t = 32.803$  was found to statistically significant at  $p < 0.001$  level. This clearly indicates that the HAND ME AN ISOBAR Technique administered to the patients in the experimental group had significant improvement in their level of safe nursing practices in the post test than the nurses in the control group.

**Section 5:** The demographic variable satisfaction in monthly working shift pattern had shown statistically significant association with post test level of safe nursing practice among the nurses in the experimental group at  $p < 0.05$  level ( $d.f = 1$ ).

## DISCUSSION

The first objective was to assess the level of Safe nursing practice among the nurses in experimental and control group. Handing over is the daily routine process for the nurses working in the clinical setting. The ICU patients are being cared by at least three staff per day. The care given to a patient is divided between three nurses in a day. The level of safe nursing practice is the quality of the care rendered at appropriate time. During their shift to shift handover process the nurses should hand over the patient health information to the next duty staff without the missing information. This will improve the safe nursing practice of the nurses that enable to give the quality health care and also satisfying the needs of the patient. The formal routine handover of the nurses does not maintain the safe nursing practice due to the lack of the standardisation.

The study results revealed that for both experimental and control group, the mean score in the pre test level of safe nursing practice in both the group was less and found that 90% in the experimental group and 93.33% in the control group has poor level of safe nursing practice. This study was supported by Parmeshwar Kumar and Vishwanathan Jithesh, (2016) the study was done to assess nursing handover practices using a pretested checklist. Study results revealed a need for a system change and standardization of handovers. Greater administrative commitment, use of technology, training, and leadership development will aid in continuity of care, promote patient safety, and ensure better outcomes. The second objective was to determine the effectiveness of 'HAND ME AN ISOBAR' technique on level of safe nursing practice during shift to shift hand over among nurses in the experimental group. The inter shift hand over is the mandatory process in the clinical setting. Though nursing was developed through its long way there is no standard tool followed universally to hand over the patient from one shift to the other shift. Hence it is the time to evolve the handing over technique and use it to improve the quality of care through the good inter-shift communication. The investigator assessed the level of safe nursing practice by using NSPEC. Then the experimental group was trained with the HAND ME AN ISOBAR Technique of clinical handover. The investigator assessed the level of safe nursing practice in both experimental group and control group after a week. The finding of the present study showed that the clearly indicates that the HAND

ME AN ISOBAR technique administered to nursing in the experimental group was found to be effective in improving the level of safe nursing practice among nurses. This study was supported by Kwang C Yee *et al* (2013) a pilot study conducted at the Royal Hobart Hospital, Australia. Researcher developed an overarching four-step SOP and MDS for clinical handover, summarised by the acronym "HAND ME AN ISOBAR". This standardised solution supports flexible adaptation to local circumstances. It is anticipated that this model will be transferable to other sites and clinical settings.

The third objective was to associate the demographic variables with the post test level of safe nursing practice in experimental group. The finding of the study showed that there is a significant association between the satisfactions of the nurses in their monthly shift pattern with the level of safe nursing practice. This study was supported by Maree Johnson (2015). She examined the impact of an Integrated Nursing Handover System – structured content, a minimum data set and an electronic module within the patient clinical information system – on nurse's satisfaction with handover and changes to practice. They concluded that the integrated system has been implemented with positive outcomes of improved nurse satisfaction with handover, nurses being informed about all patients, enhanced patient transfers and improved patient information for all health professionals. Hence the standardized method of handover not only improves the quality of care and safe nursing practice of the nurses but also it creates the feeling of job satisfaction among the nurses. As they do not miss any information during their handover, they leave the ward with satisfaction.

## Conclusion

This study indicates that the HAND ME AN ISOBAR Technique of shift handover is an effective technique in improving the safe nursing practice. The selected samples become very convenient for this method of the hand over and finding it easy to convey the health information of the patient without any missing information.

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