

# The Study of Development of Standard Operating Protocols for Nurses With Reference To Communication with Client and Relatives in Intensive care Unit (ICU)

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**Abstract:-** Intensive care unit is an area which creates fear and worry in client and relatives while nurses working in this area undergo stress to overcome, this there is a need for the nurse to understand the importance of communication in an Intensive care Unit. Communication skills are relatively poorly developed among critical care nurses compared to nurses in wards.1

**Objective-** It was to enhance communication between the nurse and client by assessing the effectiveness of Standard Operating Protocol on practices of nurses regarding communication with the clients and relatives in intensive care unit at selected hospitals in the state of Maharashtra as there were no protocols existing in the intensive care unit for nurses.

**Method and Statistical analysis-** A descriptive evaluative approach, Pre experimental time series one group pretest post test design was used. Total of 220 nurses selected by purposive sampling technique. Tools were Standard Operating Protocols. Teaching Module, An observation check lists with socio demographic data. Observation technique was used to observe the practices. Data was analyzed using both descriptive and inferential statistics. The result of study showed.. There was significant association of educational qualification with post test-1 observational practices as  $p = < 0.0001$ . There was no association with observed practice score and socio demographic data during pretest and posttest- 2. In Communication with client Area of nonverbal communication improved from 41% to 91%. Reassurance and comfort also increased from 41% to 84%. Communication with client's relatives enhanced from 43% to 93% in majority as aspect of checklist..

**Keywords:** Communication, Intensive Care Unit, Protocols

## 1. Introduction

Good communication between nurses and patients is essential for the successful outcome of individualized nursing care of each patient. To achieve this, however, nurses must understand and help their patients, demonstrating courtesy, kindness and sincerity. The inability to speak during critical illness is a source of distress for patients and

high quality communication is a key determinant and facilitator of patient-centered care.

Contribution of study – Study was conducted in six regions of Maharashtra. Standard operating protocols became a guide for the nurses while communicating with clients and relatives in Intensive Care Unit. The findings helped in planning the in-service education program for nurses in the areas of weakness. It also helped in appraising nurses for

effective communication with client and relatives as per the score obtained.

### 1.2 Statement of the problem

"A Study to develop and assess the effectiveness of Standard Operating Protocols on practices of nurses regarding Communication With Client and Relatives in Intensive care Unit. at selected hospitals in the state of Maharashtra".

### 1.2 Objectives of the study

1. To develop and validate the standard operating protocols regarding Communication with Client and Relatives in Intensive care Unit.
2. To assess the practices of the nurses before and after implementation of the protocol.
3. To find out the association of practice score with selected demographic variables.

## 2. Literature Review

"Nurse-Patient Communication Interactions the Intensive Care Unit" by Happ M B, Garrett K, Thomas D D and et.al (2011) A Descriptive observational study was conducted by them in a medical and a cardiothoracic surgical intensive care unit. ). Study results highlight specific areas for improvement in communication between nurses and nonspeaking patients in the intensive care unit, particularly in communication about pain and in the use of assistive communication strategies and communication materials 2.

A study on "Communication Board Can Ease Frustration Intubated Patients Feel When Trying to Convey Their Needs" by Rivero E in (2006) He found that 69 percent of intubated patients surveyed said that a communication board would have helped them to better express their needs to hospital health care workers This study shows that there is a need for nurses to use different modes of communication while communicating with the ventilated patients.3

Johansson G W (2000) conducted a study on "Communication between nurse and patient during ventilator treatment: patient reports and Registered Nurse Response". Twenty-two consecutive patients treated in an intensive care unit (ICU) were interviewed. . Thirteen out of the twenty-two patients reported that the registered nurse were able to understand their needs and wishes during the ventilator treatment. The results suggest the need for detailed examination of patients' potential for effective communication, evaluation of the communication skills of the registered nurse, and further investigation of devices that can help to facilitate communication between registered nurse and patients during ventilator treatment .4

## 3. Research Methodology

### 3.1 A descriptive evaluative approach

A Pre experimental time series one group pretest posttest design. Posttest -P1, P2, P3 observations after 7days and post test -P4 observation after one month. Inclusion criteria- nurses working in the intensive care units for more than three months and directly involved in patient care.

### 3.2 Variables

**Independent variable:** Standard Operating Protocols  
**Dependent Variable:** Practices of nurses regarding Communication.

### 3.3 Sample and Sampling Technique:

**Sample size:** Sample size consisted of 220 nurses working in intensive care units over all . Samples size according to Regions of Maharashtra were - 'A' Region -.42, 'B' Region – 12, 'C' Region-50, 'D' Region- 53, 'E' Region-21, 'F' Region-42.

**Sampling technique:** Purposive Sampling technique used.

### 3.4 Tools and Techniques of data collection:

- 1) Standard Operating Protocol regarding communication was developed and distributed after pretest observation
- 2) Teaching Module -
- 3) Observation check lists.

The purpose of the Observation checklist was to record the practices of nurses regarding communication with patient on ventilator and communication of nurses with clients relatives. Two observation checklists consist of 14 steps to be observed as mentioned in table (1) and Table (2) each step had a column of 'Yes' or 'No' .During observations whenever a particular nurse carried out the procedure a '✓' mark was put in the column 'Yes' and when a particular procedure was not performed a 'X' was put against that item. A '✓' was given a score of one and a 'X' mark was given a score of zero. Observation technique was used to observe the practices.

## 4. Major Findings

### 4.1 Analysis of demographic data of the nurses

Majority 73 (33%) of nurses age groups 26-30 years and 36 years and above, minimum 24(11%) were from age group 21-25 years. 193 (88%) were females and 27(12%). were males. The nurses with Diploma in general nursing were 190(86%), while MSc nurses were three (1%) all over

Maharashtra. Additional qualification such as CVTS course was done by only one (0.45%) nurse and ICU training by two (90%) nurses. Majority 74(34%) of nurses had experience of three years and above

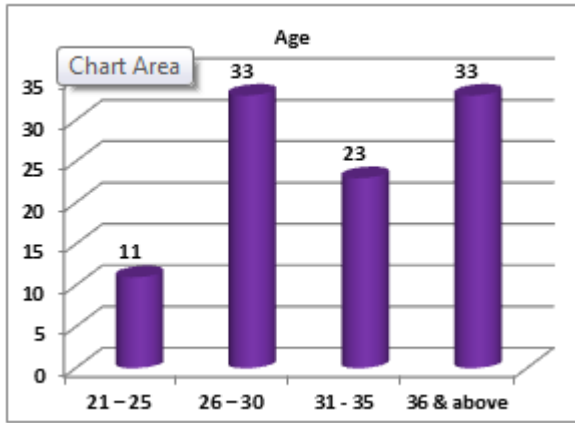


Figure 1.Age of Nurses

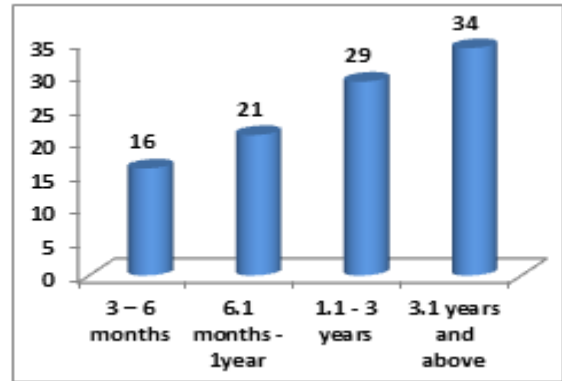


Figure 4 Years of experience

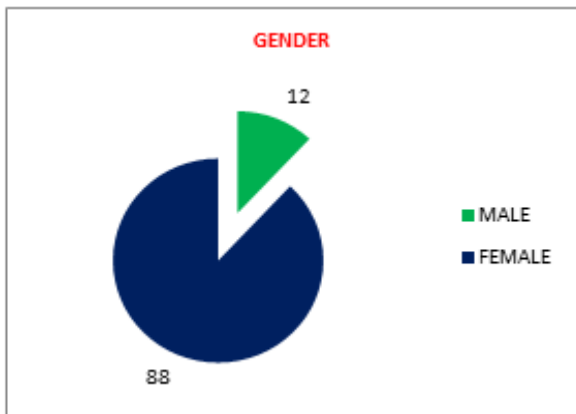


Figure : 2 Gender

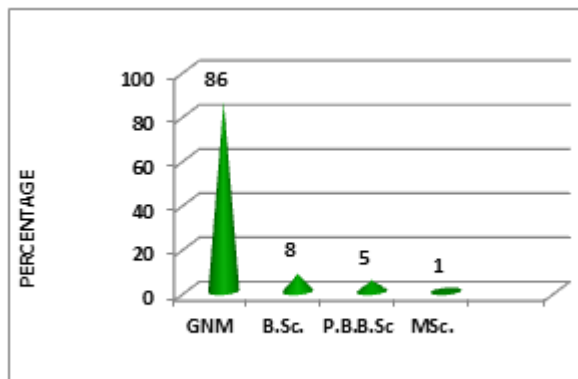


Figure :3 Educational Qualification

#### 4.2 Findings regarding Communication of nurses with client’s-

**Table -1** OBSERVATIONS REGARDING COMMUNICATION OF NURSES WITH CLIENTS ON VENTILATOR

Sr.no	Steps of procedure	Pretest		Post test P1,P2,P3						Post test-P4	
				P1		P2		P3			
		F	%	F	%	F	%	F	%	F	%
1	Finds out patients language and level of understanding.	45	21	101	46	171	78	46	21	85	39
2	Introduces herself if the patient is conscious.	19	9	70	33	148	67	44	20	108	49
3	Understands patients preferred language and communicates in the understanding language.	101	46	152	69	188	86	90	41	121	55
4	Asks patients about pain discomfort, anxiety and hunger or any need to be fulfilled.	19	09	133	61	44	20	120	55	103	47
5	Observes patients nonverbal clues of distress.	48	22	154	70	96	44	115	52	143	65
6	Answers the patient’s questions and clarifies the doubts.	58	26	58	26	76	35	145	66	114	52
7	Explains patient about line of treatment and patient care	19	09	62	28	46	21	145	66	84	38
8	Arranges for visit of relatives if requested by patient.	48	22	51	23	96	44	162	74	70	32
9	Communicates with the help of a writing board and gestures to a patient who is unable to talk.	19	09	90	41	25	11	163	74	63	29
10	Answers questions asked by simple yes or No Explains what is Yes and what is No.	87	40	87	40	101	46	106	48	115	52
11	Provides reassurance and comfort.	89	41	184	84	175	80	89	41	157	71
12	Promotes a helping relationship with patients by uses of methods of non-verbal communication.	89	41	161	73	201	91	19	9	96	44
13	Does not speak loudly near unconscious patients as she is aware that they have a potential of being heard.	87	40	119	54	153	70	124	56	133	61
14	Does not make any negative and anxiety producing statements in the presence of the patient.	120	54	131	60	167	76	83	38	138	63

During pretest 41% nurses used in non-verbal communication methods which increased to 91%, Reassurance and comfort was provided by 41% nurses in pretest it increased to 84% in post test. Arrangement done

by nurses for visit of relatives if requested by clients was 22% in pretest while it was 74% in posttest. Area which remained poor was use of sign boards and writing boards.9% to 11%

### 4.3 Findings regarding Communication of nurses with client’s relatives-

TABLE 2:- OF NURSES AS PER THE PERFORMANCE REGARDING COMMUNICATION SKILL WITH THE CLIENT’S RELATIVES

S. No	Steps of procedure	Pretest		Post test P1,P2,P3						Post test-P4	
				P1		P2		P3			
		F	%	F	%	F	%	F	%	F	%
1	Explains about the visiting hours, No of relatives permitted to meet.	16	7	147	67	173	79	90	41	111	51
2	Gives information about the waiting place for relatives, canteen and other facilities available	57	26	163	74	78	36	151	69	85	39
3	Collects all the information regarding health and treatment	24	11	163	74	34	16	88	40	69	31
4	Does a thorough study about Client’s condition before speaking to a relative	12	6	113	51	41	19	65	30	30	14
5	Finds about what information the relatives have received previously.	10	5	163	74	130	59	15	7	98	45
6	Answers politely if asked questions about nursing care, feeding etc.	24	11	159	72	167	76	196	89	135	61
7	Looks after and aspect of hygiene and care at the bed side before visitation	73	33	88	40	129	59	107	49	76	35
8	Tries to be at the bed side, during the visiting hours.	12	06	129	59	122	56	154	70	150	68
9	Introduces her and ask how the visitors are related to the patient.	12	6	170	77	34	16	145	66	34	16
10	Assesses their level of understanding	18	8	171	78	129	59	113	51	60	27
11	Asks the relatives or patients next to keen to speak to the ICU doctor/intensivist	16	7	205	93	41	19	205	93	125	57
12	Schedules an appointment if they request to speak with the primary consultant or ICU consultant In an emergency or if requested see if a telephonic consultation can be arranged.	21	10	107	49	91	41	72	33	76	35
13	Does not give any information that she is not sure of especially with regard to Client’s condition and prognosis.	94	43	122	56	205	93	129	59	161	73
14	Gives time to time information about Client’s health.	16	7	172	78	114	52	34	16	47	21

From above table 7% nurses asked the relatives to speak to ICU doctors to clear their doubts during pretest in posttest it was 93 %. 43% during pretest Nurses did not give

information that she is not sure about client’s condition and prognosis it increased to 93 % in post test. The two areas which remained poor was introduction of herself to the

relatives 6% to 16 % and giving time to time information about clients condition from 7% to 21% only.

#### 4.4 Region wise comparison of mean practice score of nurses regarding communication with clients in ICU:

- There was a significant change in the

mean observational practice score during post test P1.P2, P3 and P4 in all of the six regions the value of ‘p’ was between <0.0001 to 0.005 except in ‘B’ region it was not significant during post test P3 was p = 0.07.

TABLE: - 3 REGION WISE COMPARISON OF PRETEST AND POST TEST- P1, P2, P3 AND P4 OBSERVED PRACTICE SCORE REGARDING COMMUNICATION SKILLS OF NURSE WITH THE PATIENT

Regions	Number of tests	Observed Practice score		Wilcoxon Z Value	p Value
		Mean	SD		
'A'(n=42)	Pretest	3.83	1.324	-	-
	Post test-P1	9.90	1.165	5.72	<0.0001
	Post test-P2	6.33	2.534	4.79	<0.0001
	Post test-P3	7.50	1.581	5.64	<0.0001
	Post test-P4	5.05	1.92	2.38	0.017
'B'(n=12)	Pretest	3.75	1.712	-	-
	Post test-P1	10.00	1.044	3.08	0.002
	Post test-P2	6.83	2.368	2.69	0.007
	Post test-P3	7.17	1.267	2.97	0.003
	Post test-P4	5.72	2.70	2.16	0.031
'C' (n=50)	Pretest	3.96	1.948	-	-
	Post test-P1	10.12	1.100	6.17	<0.0001
	Post test-P2	7.00	2.579	5.51	<0.0001
	Post test-P3	7.24	1.349	5.75	<0.0001
	Post test-P4	6.33	2.95	4.77	<0.0001
'D'(n=53)	Pretest	3.49	1.589	-	-
	Post test-P1	10.06	.989	6.39	<0.0001
	Post test-P2	6.49	2.462	5.66	<0.0001
	Post test-P3	7.38	1.431	6.28	<0.0001
	Post test-P4	5.65	2.21	4.71	<0.0001
'E'(n=21)	Pretest	3.57	1.690	-	-
	Post test-P1	10.19	1.030	4.05	<0.0001
	Post test-P2	6.62	2.500	3.72	<0.0001
	Post test-P3	7.33	1.653	3.95	<0.0001
	Post test-P4	5.46	2.19	2.53	0.011
'F' (n=42)	Pretest	3.90	1.574	-	-
	Post test-P1	9.86	1.181	5.68	<0.0001
	Post test-P2	6.81	2.472	5.12	<0.0001
	Post test-P3	7.14	1.372	5.48	<0.0001
	Post test-P4	5.44	2.52	3.12	0.002

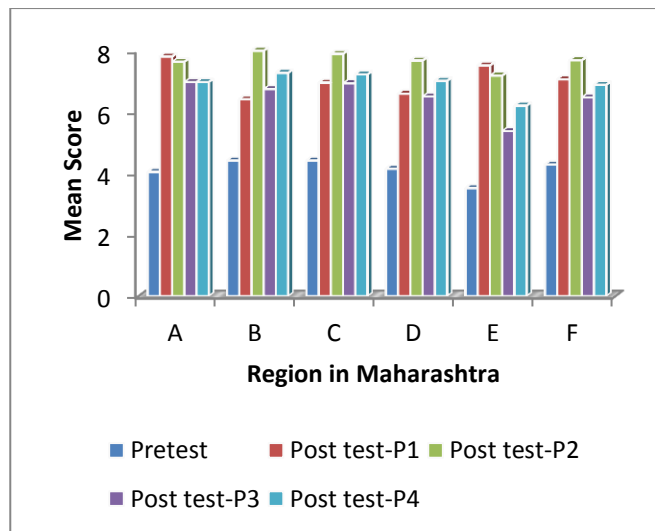


Figure: -5- bar diagram showing region wise comparison of pretest and post test- p1, p2, p3 and p4 observed practice score regarding communication skills of nurse with the patient

#### 4.5 Region wise comparison of mean practice score of nurses regarding communication with relatives:

Region wise comparison of pretest and post test-P1, P2, P3 and P4 observational practice score regarding communication skills of nurse with the Client’s relatives.

There was a significant change in the mean observational practice score during post test P1.P2, P3 and P4 in all of the six regions as the value of ‘p’ ranged between <0.0001 to 0.011.

TABLE 4:  
REGION WISE COMPARISON OF PRETEST AND POST TEST- P1, P2, P3 AND P4 OBSERVED PRACTICE SCORE REGARDING COMMUNICATION SKILLS OF NURSE WITH THE CLIENT ’S RELATIVES.

n= 220

Regions	Number of tests	Observed Practice score		Wilcoxon Z Value	p Value
		Mean	SD		
‘A’(n=42)	Pretest	3.83	1.324	-	-
	Post test-P1	9.90	1.165	5.72	<0.0001
	Post test-P2	6.33	2.534	4.79	<0.0001
	Post test-P3	7.50	1.581	5.64	<0.0001
	Post test-P4	5.05	1.92	2.38	0.017
‘B’(n=12)	Pretest	3.75	1.712	-	-
	Post test-P1	10.00	1.044	3.08	0.002
	Post test-P2	6.83	2.368	2.69	0.007
	Post test-P3	7.17	1.267	2.97	0.003
	Post test-P4	5.72	2.70	2.16	0.031
‘C’(n=50)	Pretest	3.96	1.948	-	-
	Post test-P1	10.12	1.100	6.17	<0.0001
	Post test-P2	7.00	2.579	5.51	<0.0001
	Post test-P3	7.24	1.349	5.75	<0.0001
	Post test-P4	6.33	2.95	4.77	<0.0001
‘D’(n=53)	Pretest	3.49	1.589	-	-

	Post test-P1	10.06	.989	6.39	<0.0001
	Post test-P2	6.49	2.462	5.66	<0.0001
	Post test-P3	7.38	1.431	6.28	<0.0001
	Post test-P4	5.65	2.21	4.71	<0.0001
'E'(n=21)	Pretest	3.57	1.690	-	-
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	Post test-P2	6.62	2.500	3.72	<0.0001
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'F' (n=42)	Pretest	3.90	1.574	-	-
	Post test-P1	9.86	1.181	5.68	<0.0001
	Post test-P2	6.81	2.472	5.12	<0.0001
	Post test-P3	7.14	1.372	5.48	<0.0001
	Post test-P4	5.44	2.52	3.12	0.002

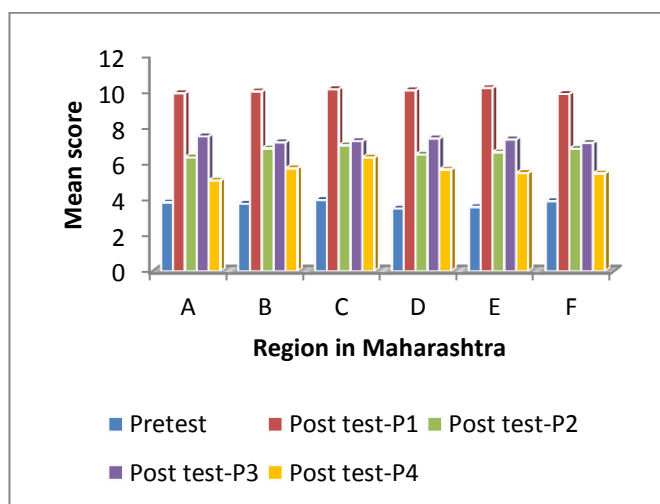


Figure : 6-bar diagram showing region wise comparison of pretest and post test- p1, p2, p3 and p4 observed practice score regarding communication skills of nurse with the client's relatives.

The nurses who had done P.B.B.Sc. had higher mean observed practice scores (88.30) than the other three groups. G.N.M .MSc. and Diploma In Critical Care Nursing. Non – verbal Communication of nurses with clients showed that the use of sign boards and writing boards was very poor .It was 9% during pretest which increased to 11% Communication with client's relatives had two areas which required to be improved were self-introduction to the relatives & giving time to time information about client's condition.

## 5 Conclusions and Future Scope

Study results highlight specific areas for improvement in communication between nurses and clients in the intensive care unit, particularly in use of methods of nonverbal communication, self-introduction to relatives and providing time to time information about client's condition .Overall the protocols helped in improvement in performance of communication with client and relatives. This study can help in bringing uniformity and standardization in all the hospital according to regions and bring satisfaction among the clients and relatives while seeking treatment in intensive care unit. The nurse working in the ICU will develop confidence in their care while referring the protocols. The newly posted nurses will also have a guideline regarding their responsibilities in the ICU and will follow a set pattern which will ultimately cater good nursing care to the patient.

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