

# Attitude and Nursing Care Practices among primary care nurses before and after Structured Nursing Care Rounds

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**Abstract-** This article presents the findings from a pre-test post-test two group comparative study that was conducted in six medical surgical wards, as part of a pilot study for a much larger investigation. This research explored the effect of implementing the Structured Nursing Care Rounds (SNCR) on primary care nurses' attitude and perceptions of nursing care practices. Its goal was to engage front-line hospital nurses for improving the quality of nursing care practices and the patient's experience of care. Primary care nurses' role was of vital importance in SNCR implementation. During hourly visits, bedside care were bunched up and viewed as a package of '9 P's' interventions. Nurses in participating units completed the Nurses' Attitude Scale (NAS) and Nurses' Modus Operandi Scale (NMOS) prior to the two weeks training period and after four weeks period during which structured nursing care rounds were conducted in the intervention wards. Total NAS score significantly improved in primary care nurses of intervention wards during the SNCR implementation period (pre-29.80±2.28; post-54.10±1.82, p= ≤0.001\*\*). Total NMOS score in the intervention group significantly lifted with SNCR implementation (pre-77.96 ±5.61; post-102.0 ±3.84, p= ≤0.001\*\*).

**Index Terms-** nursing care practices, primary care nurses, structured nursing care rounds

## I. INTRODUCTION

An early evidence-based framework that stretches as far back as the 1860s with Florence Nightingale is that 'regular rounding' on hospitalized patients. The attributes of Nightingale-style rounds are noteworthy feature of nursing profession that she spent many hours in the wards, checked on each patient, gave personal care to the wounded, provided measureless amount of compassion and while making rounds on patients, she established her image as the "Lady with the Lamp"<sup>1</sup>. Nurse rounding in literature is "nursing staff visiting each patient on a predetermined schedule"<sup>2</sup>. The effects of nurse rounding has been documented in previous studies as improving the overall quality of care, reducing a adverse events such as patient falls, and improving both nurse and patient satisfaction with care<sup>3-5</sup>. Nightingale style rounds and innovative thinking are always indispensable in modern nursing in order to provide quality cares that help one patient overcome a troublesome symptom, other times, benefits millions of patient's system world wide<sup>6</sup>.

**Need for the study:** On the suggestions of growing body of evidence that more nursing time per patient results in better patient outcomes<sup>7</sup>, the researcher embraced an evidence-based hourly nurse rounding model<sup>8-9</sup> named Structured Nursing Care Rounds (SNCR), a bottom-up approach that empowered primary care nurses to suggest, test and implement new ways to improve patient care practices. The goals of hourly visits to patients were to increase the time nurses spend in direct patient care; to improve quality, reliability and safety of patient care, to create patient-centred care and to reduce errors and adverse events<sup>10-12</sup>. However, there has been less attention on ensuring visible nursing presence hourly during the day and second hourly in the night as far as local setting was concerned and also no previous studies have attempted to relate the effect of regular nursing care visits on nurses' attitude and perception of nursing care practices.

**Purpose of the study:** The purpose of this study was to reach at valid conclusions about relationship between structured nursing care rounds (independent variable) and primary care nurses' attitude and nursing care practices (dependent variables) in a tertiary care hospital inpatient setting.

## Statement of the Problem

A study to assess the effect of Structured Nursing Care Rounds (SNCR) on attitude and nursing care practices among primary care nurses at one of the tertiary care hospital, Kerala.

## Objectives of the study

1. To assess attitude towards SNCR in experimental group at pre and post-test level
2. To compare attitude scores in experimental and control group at post-test level
3. To assess nursing care practices in experimental group at pre and post-test level
4. To compare nursing practices in experimental and control group at post-test level

## Hypotheses

1. There is significant difference in attitude towards SNCR among experimental group of nurses as represented by their pre and post-test mean scores
2. There is significant difference in nursing care practices among experimental groups of nurses as represented by their pre and post-test mean scores

- There is significant difference in nursing care practices between experimental and control groups as represented by their post-test mean scores

## II. MATERIALS AND METHODS

**Research approach and Design:** Pre-test post-test comparison group quasi experimental research design attempted to determine the effect of structured nursing care rounds on primary care nurses' attitude and nursing care practices. This design enabled the researcher to test the research hypotheses by exposing a comparison group that was similar to the experimental (structured nursing care rounds wards) group as possible. The purpose of the control group was to discern the effect of nursing rounds in contrast to the usual changes in routine care occur coupled with advancement of time.

**Setting:** The study was conducted in six medical surgical wards of tertiary care hospital, Kerala. The experimental and control wards were with similar medical surgical patient loads at the time of study implementation.

**Sample and Sampling Process:** In this design the wards were randomly assigned at 1:1 ratio to experimental and usual conditions. The study subjects were total enumeration sample of registered nurses (Experimental n=30; control n=22) working full time in the participating medical surgical wards: one group engaged with structured nursing care rounds and another group that maintained usual care.

**Ethical Considerations:** Ethical principles that governed the study process were that the study was approved by Institutional Ethics Committee, all nurses who participated in the study were those who actually agreed to complete the study, nurses were approached with a full description of the study and its aim, after which the nurses were free to participate in the study or reject and confidentiality of the nurses was protected throughout the study.

**Data Collection Tools:** Two tools were designed specifically to collect data of the study objectives. The first tool NAS, a Likert type scale consisting of 12 items was used to collect quantitative data for both pre- & post-test phases of the education in order to measure the attitude level of the primary care nurses regarding structured nursing care rounds. This scale had few negatively keyed items (reverse scoring) in which the numerical scoring scale runs in the opposite direction. The

second tool, NMOS<sup>13</sup> was similar in SNCR content to obtain score on nursing care practices among primary care nurses. This was developed by the researcher after reviewing the related literature and consisted of 28 items of actions integrated into workflow of primary care nurses during structured nursing care rounds.

**Intervention:** Intervention was a structured nursing care rounds which incorporated nine specific actions intended to engage primary care nurses with hourly patient visits during the day and every two hours at night without disturbing their rest and sleep. The nine components were: Person, Plan, Performing scheduled tasks Position, Priorities, Phlebitis, Pain, Patient education and Presence. Actions integrated into workflow of nursing staff members during rounds included person-centred approach by introducing the patients to nursing personnel and nursing personnel to patients, informed the plan for frequent visits to provide excellent care, performed scheduled tasks during which they also determined risks for fall and pressure ulcer, met the nutritional, hygienic and environmental needs, observed for the IV related phlebitis, conducted pain assessment and managed the need for pain medication, imparted health education and supplemented discharge process. At the end asked: Is there anything I can do before I leave? Nurses told the patients that any one member of the nursing team will be back in one hour to check on them again.

**Training:** Formal staff education developed by the researcher after reviewing the related literature and actual practice in the local set up, was conducted at convenient times in each of the units included 6 hours for every 10 nurses. Ward-level mentoring support including discussions, clarifications, behavioural prompts like gestures and words at rounds were also included in fixing the new model of care into their scheduled work being done.

**Data collection:** Baseline data was collected during first four weeks from primary care nurses of six medical surgical wards. After two weeks of training on structured nursing care rounds, nursing staff of experimental wards performed structured nursing care rounds at one-hour during the day and two-hour intervals using a protocol that incorporated nine specific actions into unit work flow and also from another three medical surgical control wards in which primary care nurses continued with usual care. Post-test was completed at the end of 4<sup>th</sup> week.

## III. RESULTS

**Table 1. Attitude towards SNCR in experimental group at pre and post-test level**

Exp: Group (n=30)	Category	f	%	Mean	SD	Mean difference	Paired 't' value	p value
Pre-test	Disagree	8	36.4	29.80	2.28	24.60	42.50	≤0.001**
	Neither agree nor disagree	14	63.6					
	Agree	0	0					
Post-test	Disagree	0	0	54.10	1.82			
	Neither agree nor disagree	0	0					
	Agree	30	100					

As for the attitude towards SNCR implementation in the experimental group, **table 1** shows that pre-test mean score among primary care nurses was  $29.80 \pm 2.28$  and that rose to  $54.10 \pm 1.82$  at post-test level. The calculated 't' value obtained was greater than the table value at  $0.001(p \leq 0.001^{**})$  level of

significance. Hence it was inferred that there is significant improvement in the attitude towards working with SNCR among the primary care nurses. Furthermore, after intervention the entire sample (100%, n=30) had agreement to SNCR practice.

**Table 2. Attitude scores in experimental and control group at post-test level**

Group	Category	f	%	Mean	SD	Mean difference	't' value	p value
Experiment (n=30) Post-test	Disagree	0	0	54.10	1.82	24.37	47.79	$\leq 0.001^{**}$
	Neither agree nor disagree	0	0					
	Agree	30	100					
Control (n=22) Post-test	Disagree	6	27.3	29.72	1.80	24.37	47.79	$\leq 0.001^{**}$
	Neither agree nor disagree	16	72.7					
	Agree	0	0					

For a comparison between experimental and control groups with regard to attitude scores towards SNCR at post-test level, as noticeable in **table 2**, mean post score in experimental group of primary care nurses was  $54.10 \pm 1.82$ . In the same period, mean post score in control group was  $29.72 \pm 1.80$ . The

calculated 't' value obtained was greater than the table value at  $0.001(p \leq 0.001^{**})$  level of significance. Hence it is inferred that there is significant increase in attitudes working with SNCR among the primary care nurses.

**Table 3. Nursing care practice scores in experimental group at pre- to post-test level**

Experimental Group (n=30)	category	f	%	Mean	SD	Mean difference	Paired 't' value	p value
Pre-test	Poor	0	0	77.96	5.61	24.03	17.69	$\leq 0.001^{**}$
	Average	19	63.3					
	Good	11	36.7					
Post-test	Poor	0	0	102.0	3.84	24.03	17.69	$\leq 0.001^{**}$
	Average	5	16.7					
	Good	25	83.3					

It is distinguishable from **table 3** that the mean score on nurses' perception of nursing care practices after SNCR rose to  $102.0 \pm 3.84$  from pre-test mean score  $77.96 \pm 5.61$ . The calculated 't' value obtained was greater than the table value at  $0.001 (p \leq 0.001^{**})$  level of significance. Results indicate that SNCR has strong influence on quality of nursing care practices

as perceived by primary care nurses. It is also evident that with SNCR an overwhelming majority (83%, n=25) of sample perceived nursing care practice was 'good' when compared to pre-implementation phase where majority of the sample (63.3%, n=19) perceived quality of nursing care delivery is only 'average'.

**Table 4. Comparison of experimental and control groups at post-test level**

Group	category	f	%	Mean	SD	Mean difference	't' value	P value
Experimental <i>n= 30</i>	poor	0	0	48.31	3.27			
	average	5	16.7					

	good	25	83.3			53.68	52.93	≤0.001**
Control n= 22	poor	0	0	102.0	3.84			
	average	22	100					
	good	0	0					

**Table 4** testifies that post-test mean score on nursing care practices in intervention group was 102.0 ±3.84 and in the control group, it was only 48.31 ±3.27. The calculated 't' value obtained was greater than the table value at 0.001 (p= ≤ 0.001\*\*) level of significance. Hence it may be inferred that the significant increase in nursing care practices was the effect of SNCR.

#### IV. CONCLUSION

This study assessed the effect of engaging primary care nurses with structured nursing care rounds on their attitude and perception of nursing care practices. The findings generally point to significant improvements in these two variables. The results are fascinating and propose that an improved attitude towards structured nursing care rounds may lead to reorganized nursing care practices among primary care nurses in hospitals. However, further research is needed that uses larger sample and an extended period of time, to test cause and effect relationships. It will be important to measure outcomes of this practice within each of the medical surgical wards of the study hospital in order to generate in-house evidence for promotion of this practice in similar settings.

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**Conflict of interest:** The authors declare no conflict of interest

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