

# A comparison of the quality of nursing care between pre- and postimplementing of a clinical pathway

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## Introduction

The association between clinical pathway and the quality of nursing care has been well reported in the literature (e.g. Wigfield & Boon 1996), but there was a lack of studies on how to evaluate and compare the quality of nursing care pre- and postimplementing clinical pathway.

## Aim

To evaluate the quality of nursing care on four types of patients and compare the quality of nursing care with four objectives pre- and postimplementing the clinical pathway.

## Methodology

### Design

This was a quasi-experimental design.

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## Sampling

Patients from four orthopaedic units in the TVGH at Taipei were randomly selected. A pretest and post-test (after three months) were conducted. Sample sizes pre- and postimplementing clinical pathways were type I and type II 55 each, type III 38, type IV 0, and total 296 patients.

## Data collection and procedure

Eight questionnaires, which were developed from Hsu (1989, 1995) quality monitoring tool (A and B questionnaires for four types of patients), were randomly selected to monitor orthopaedic nursing care quality in pre- and post-test. Eight questionnaires that included 50 criteria in each questionnaire were developed to assure the quality of nursing care. Data collection methods for the quality tools were: (1) information from the patient's record; (2) observation of the patient; (3) interview with the patient; (4) interview with the nurse; (5) observation of the nurse; (6) observation of the patient's environment, and (7) observer's inference. Each criterion had designated methods for its data collection. Observers classified the randomly selected patients and then appropriate questionnaires were sequentially selected. The observer reviewed the patient's chart and completed patients'

**Table 1** The ANOVA of quality of nursing care on four objectives and three types of patients

Objectives	Type	Mean	SS	d.f.	MS	F-value	P-value
I: The plan of nursing care is formulated	Type I	89.77	41.73	2	20.86	1.36	0.29
	Type II	93.17					
	Type III	93.44					
II: The physical needs of the patient are attended	Type I	88.84	131.00	2	65.50	1.24	0.30
	Type II	91.92					
	Type III	94.22					
III: Patient non-physical needs of the patient are attended	Type I	88.59	6.02	2	3.01	0.35	0.96
	Type II	87.50					
	Type III	87.26					
IV: Achievement of nursing care objectives is evaluated	Type I	89.65	62.81	2	31.40	0.54	0.62
	Type II	82.40					
	Type III	88.79					

\* $P < 0.05$ . SS, sum of square; MS, mean of square.

demographic data on the questionnaire, then started data collection. Data collection procedures adhere to the ethical protection for the study participants. The reliability was tested on inter-rater and intra-rater reliability. Content validity was based on the opinions of the experts.

### Scoring

There were three methods that could be used to assign the score for the criteria depending upon the type of response. The mean score for an objective was calculated with the sum of each sub-objective score multiplied by the number of the criteria divided by the total number of each sub-objective criterion.

### Data analysis

Data were analysed by means, standard deviation, *t*-test, analysis of variance (ANOVA) and Scheffe' test.

### Results

There were no significant differences in the quality of nursing care between pre- and postclinical pathway implemented,

also no significant differences among three types of patients with four objectives (Table 1).

### Conclusion

This study:

(1) develops the orthopaedic nursing care quality monitoring tools, (2) the use of this tool to evaluate the quality of nursing care will assist administrators and educators to identify the strengths and weakness in the delivery of nursing care.

### References

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