

## CHAPTER 5

### CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusions and the recommendations for nursing practice, nursing administration, nursing education and further research. The strengths and limitations of this study also are discussed.

#### *Conclusions*

A set of nursing quality indicators was developed to indicate the quality of nursing care provided for hospitalized non-surgical stroke elders. The set consisted of twenty-five indicators based on six aspects. The process, followed in the development of the quality indicators, consisted of three phases: identification of the nursing quality aspects and indicators; empirical testing of the nursing quality indicators using the Delphi technique; and pilot testing for applicability of the nursing quality indicators. The results of each phase are described below:

*Phase 1:* Seventy-five nursing quality indicators for hospitalized non-surgical stroke elders were drawn up, based on six quality aspects. These were identified through focus group and semi-structured interviews with hospitalized non-surgical stroke elders and their families, nurses, expert nurses, and physicians. The quality aspects were management of the patient unit with 12 indicators; nursing staff qualification with 11 indicators; nursing care activity with 14 indicators; encouraging family participation in patient care with 6 indicators; planning for discharge and promoting continuing care with 12 indicators; and nursing care outcome with 20 indicators.

*Phase 2:* The Delphi technique, using three rounds, was employed to evaluate the importance, feasibility, and face validity of the quality indicators. The participants in this phase included 12 experts in stroke care, 12 experts in elder care, and 12 experts in quality care management. Over eighty-eight percent of the participants were nurses. The response rate in rounds one, two and three were 97.2, 97.1, and 85.3 percent, respectively. The number of predetermined indicators in each round was 75, 45, and 27, respectively. Two indicators were discarded after round three. Consequently, the number of revised indicators after round three was 25. The components of each quality aspect were as follows:

1. The management of the patient unit aspect consisted of five indicators. They were nursing practice guidelines for providing care for non-surgical stroke elders; health education guidelines for non-surgical stroke elders, their families and caregivers; knowledge sharing activity among nursing staff on topics related to providing care for non-surgical stroke elders; prevention guidelines for accidents/injury among non-surgical stroke elders; and prevention guidelines for drug alerts among non-surgical stroke elders.

2. The nursing staff qualification aspect consisted of two indicators. They were the nurses' characteristics and competency in providing care for non-surgical stroke elders; and satisfaction of non-surgical stroke elders, their families and caregivers toward the nurses' personalities and interactions.

3. The nursing care activity aspect consisted of five indicators. These were assessment and monitoring of non-surgical stroke elders in the critical phase; nursing care for non-surgical stroke elders regarding issues of hygiene, nutritional, fluid-medication, excretion, and psychosocial and spiritual care; promoting movement of

muscles and joints; preventing complications, such as pneumonia, urinary tract infections, pressure sores, joint stiffness; and promoting non-surgical stroke elders' activities in daily life.

4. The encouraging of family participation in patient aspect consisted of three indicators. These were guidelines for promoting family participation in providing care for non-surgical stroke elders; policy regarding family members spending the night in the hospital with the non-surgical stroke elders: and, area for families and caregivers to spending the night in the hospital in order to participate in providing care for the non-surgical stroke elders.

5. The planning for discharge and promoting continuing aspect consisted of four indicators. They were guidelines for planning the discharge of non-surgical stroke elders; nurses' preparation of families and caregivers before discharge of non-surgical stroke elders; nurses' provision of education to non-surgical stroke elders, their families and caregivers regarding providing care for non-surgical stroke elders after discharge; and, the referral system after discharge for non-surgical stroke elders.

6. The nursing care outcome aspect consisted of six indicators. They were the: aspirated pneumonia rate, urinary tract infection rate, pressure ulcer rate, joint stiffness rate, fall/injury rate, and drug adversity rate.

*Phase 3:* The applicability of the indicators was tested by using an indicator applicability questionnaire. The content validity of this questionnaire was 0.88.

After testing the applicability in the regional and provincial hospitals, 18 out of 25 nursing quality indicators were considered highly applicable, four nursing quality indicators were considered mostly applicable, and three nursing quality indicators were considered less applicable.

### ***Recommendations***

This study developed twenty-five nursing quality indicators for hospitalized non-surgical stroke elders from the perspective of stakeholders. Consensus was reached, by a panel of experts, regarding each of the 25 nursing quality indicators. The results and the methodology, of this study, contribute to nursing administration, nursing practice, nursing education and nursing research as follows:

#### *Nursing administration*

1. The finding of this study regarding nursing quality aspects revealed that the hospitalized non-surgical stroke elders and their families prioritized the nurses' characteristics and interpersonal relationships at a high level. Therefore, nurse administrator could use this finding to guide the staff recruiting process.

2. From the findings, the nurses' competence in providing care for hospitalized non-surgical stroke elders was significance. Hence, the nurse administrator should encourage their staff to continuously develop and enlarge their knowledge and skills through the sharing of knowledge regarding providing care for hospitalized stroke patients, as evidenced by the indicator, activity for knowledge sharing among the nursing staff.

3. The findings revealed that the expert nurses' and the neurological physicians' opinions reflected the fact that effective quality care for hospitalized non-surgical stroke elders is depended on collaboration among the multidisciplinary healthcare team, the patients, and their families. Therefore, the nurse supervisors and

the head nurses need to create an effective strategy to promote collaboration among the healthcare team.

4. The outcome indicator for this study, the nursing quality indicators for hospitalized non-surgical stroke elders, could be used as a quality assessment tool in many aspects of hospital and patient unit administration as follows:

4.1 To assess, monitor, and evaluate the quality of nursing care for this patient group that can be implemented among other groups of elderly patients.

4.2 To support the quality care management scheme and the policy decision-making process.

4.3 For comparing the quality of nursing care for hospitalized non-surgical stroke elders provided among hospitals.

#### *Nursing practice*

1. The findings from this study revealed that hospitalized elderly patients and their families valued the pleasantness and friendliness of the nurses more than they did the nurses' technical skills. Therefore, nurses providing care in hospital/community setting should always be aware of what their patients value.

2. The results of the focus group interviews indicate that most of the nurses, in this study, believed that a stroke unit should be established for providing specific and effective care for stroke patients in Thailand.

### *Nursing education*

1. The results of this study could be used to guide development of classes and workshops regarding providing nursing care for hospitalized non-surgical stroke elders to nursing students at every level both in theoretical programs and practical programs.

2. The methodology used for indicator development, based on the stakeholders' perceptions, could be used as a reference for further study in the area of educational administration, and at every level of nursing education.

### *Nursing Research*

In line with the findings, the methodology of this study, and the applicability of the quality indicators, the following recommendations are made regarding nursing research. It is recommended that:

1. Further studies should be undertaken to increase the strength of the indicators. In addition, the field testing, and the predictive validity and construct validity of each indicator should be evaluated. This model of providing quality nursing care for hospitalized non-surgical stroke elders should be implemented and evaluated.

2. Specific instruments to measure the components of each indicator should be developed, as well as their psychometric properties examined. For example, an instrument could be developed to measure the degree of hospitalized non-surgical stroke elders' satisfaction with nurses' caring behavior.

3. The methodology used for indicator development, based on the stakeholders' perceptions, could be used as a reference for further study in several nursing areas.

### ***Strengths and limitations of the study***

This study is the earliest study in Thailand aimed at developing nursing quality indicators for the specific medical diagnosis, "stroke," and the specific group, "elderly patients."

The strengths of this study are three-folds. Firstly, the indicator development methodology used a bottom-up approach. This is more effective and credible in a quality health care management system than is the top-down approach. Secondly, the aspects of quality care that emerged from the perspectives of the stakeholders are directly related, in the Thai context, to nursing care provided non-surgical stroke elders. Finally, the very high number of members (36) on the panel of experts, and their extensive knowledge of three specific areas, enhanced the credibility of this study.

On the other hand, this study still has the limitations. This set of quality indicator was developed in the regional and provincial hospital context, so it might be limited to utilize in other hospitals' type, such as university or private hospital.

In addition, the applicability testing of these selected indicators was limited to the selected hospitals in the year 2007. Therefore, the generalizability of the indicators regarding to the applicability in other circumstances and in other timeframe would be definitely limited.