The Relationship between the Hospital Nurse Surveillance Capacity Profile and Patient and Nurse Outcomes in Community Hospitals, Thailand

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BACKGROUND

- Nursing shortage is global problem.
- Major concern about the nursing shortage have been compounded by evidence of adverse patient outcomes and undesirable nurse outcomes such as job dissatisfaction and burnout, which are major contributory factors of intention to leave, absenteeism, turnover.

BACKGROUND

- Nurse surveillance is a process through which nurses monitors, evaluate, and act upon emerging indicators of a patient's change in status.

- Nurse surveillance capacity is defined as the organizational features that enhance or weaken nurse surveillance.

- Nurse surveillance capacity includes RN characteristics (staffing, education, clinical expertise, and years of experience), and the nurse practice environment.

BACKGROUND

- Greater nurse surveillance capacity was significantly associated with better quality of care and fewer adverse events.

- Better organizational features were related to less job dissatisfaction, burnout, and intent to leave.

- Most of the research has been under taken in North America and Western Europe.

- This is one of the first studies to examine factors associated with quality of care and nurse outcomes in Southeast Asia.

- If there are similarities in research findings in other parts of the world, the possibility of global approaches to solving nursing shortage may be suggested.

BACKGROUND

- Thailand is a middle-income country located in the Southeast Asia region and in regional collaborations such as the Association of South-East Asian Nations (ASEAN).

- Nurses and midwifery personnel comprise 70% of all the health personnel of Thailand's Healthcare system.

- The health system of Thailand based on primary health care which emphasizes prevention and promotion and ensures adequate and high quality primary care (World Health Organization, 2012).

- Public hospitals under the jurisdiction of the ministry of Public Health are the mainstay of Health care in Thailand.

BACKGROUND

- Thai hospitals have been experiencing nurse shortages (Thailand Nursing Council, 2009).

- An analysis of the nursing workforce based on Geographic Information System (GIS) survey and overtime paid revealed a shortage of nurses with 15% to 26% of all nursing positions in public hospital (TNC, 2008)

BACKGROUND

- Community hospitals that make up the front-line public hospitals serving primary health care to the Thai population are particularly affected by the nursing shortage problem.

- Although the government has approved the production of nurse workforce, retention strategies are needed (the Thailand Nursing and Midwifery Council, 2009)

- The issues of undesirable adverse events such as mistakes in patients' identification, patient falls, medication errors, pressure ulcers, and urinary tract infections were found in Thai hospitals.

BACKGROUND

- Although international studies have documented an association between the hospital nurse surveillance capacity profile and patient and nurse outcomes

- Little is known about this relationship in Asian countries.
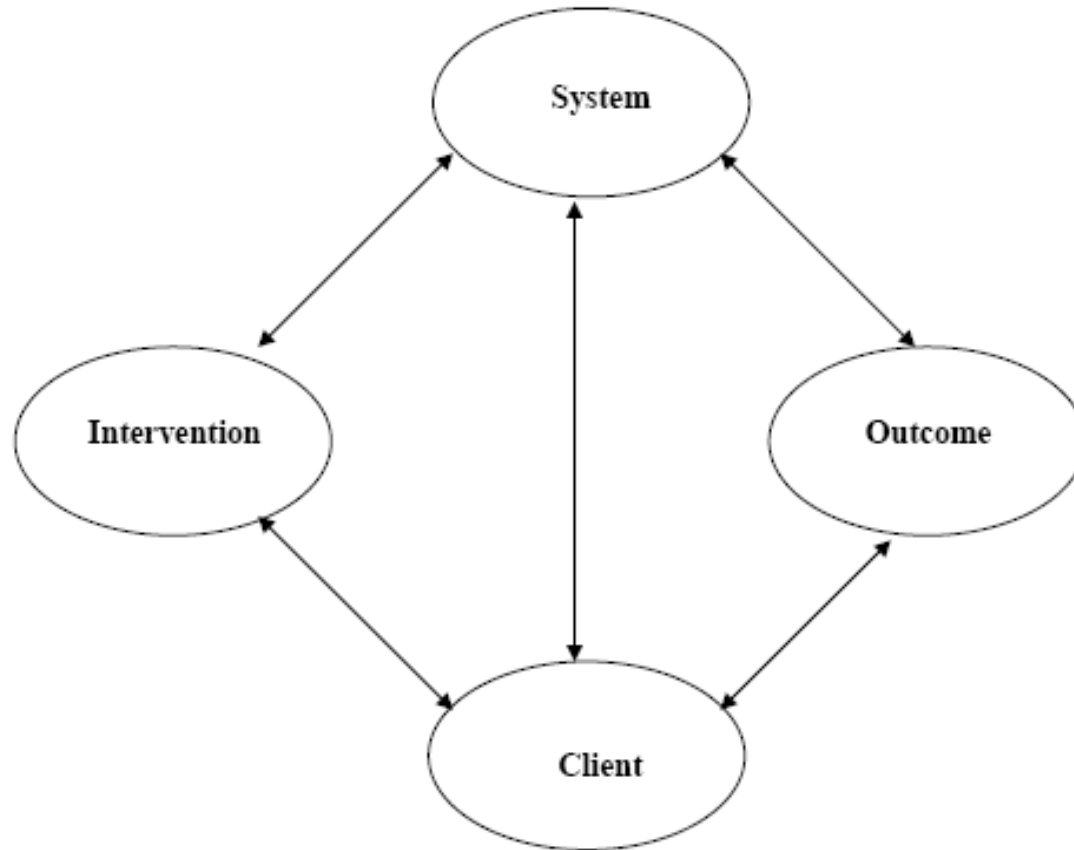
OBJECTIVE

- This study aims to determine the relationship between the hospital nurse surveillance capacity profile and patient and nurse outcomes in community hospitals, Thailand.

The Quality Health Outcomes model
(Mitchell, Ferketich, & Jennings, 1998)

METHODOLOGY

- This study is a predictive correlational design conducted in community hospitals in Thailand with ≥ 90 beds.

- There are 93 hospitals from all parts of Thailand at the time of the study, 92 of which agreed to participate in the study.

- For this study, the sample focused on nurses who provided direct patient care (not nurse managers), had worked more than 1 year.

METHODOLOGY

- All nurses within participating hospitals were requested to complete the questionnaire, which was a accompanied by a cover letter explaining the purpose of the survey, its voluntary nature, and the strict protection of anonymity.

- This study was approved by the Research Ethical Committees of Faculty of Nursing, Chiang Mai University.

Data Collection

- After obtaining permission from hospital directors and nursing departments, questionnaires were delivered by nurse coordinators in quality and research departments in each hospital with a cover page explaining the study purpose, methodology, and instructions.

- For each hospital, 25-30 nurses in inpatient units where they are selected by stratified random were approached

- The nurses were surveyed between May and July 2012.

- A total of 2,415 (98.6%) questionnaires were returned including 1,412 (57.6%) of nurses who met study criteria.

Data analysis

- Frequency, percentage, and range were investigated categorical variables.

- Mean and standard deviation were used to examine continuous variables.

- Multivariate logistic regression analysis controlled for clustering of nurses within hospitals was calculated to estimate the relationship between hospital nurse surveillance capacity profile and patient and nurse outcomes after differences across hospitals in the characteristics of nurses (age and year as RNs) and hospitals (location) were controlled.

- Analyses were performed using STATA 10.1 using $p < 0.05$ as the statistical level.

Measures

Variables	
Hospital Nurse Surveillance Capacity Profile Nurse Outcome	
- Staffing	- Nurses were asked to provide the number of patients cared for on their last shift.
- Education	- Nurse were asked to provide their highest level of education in nursing.
- clinical expertise	-Nurses were asked to describe their clinical nursing expertise by choosing from one of the following response categories defined by Benner (1984): advanced beginner, competent, proficient, and expert.
- years of experience	-Nurse were asked to provide the number of years they had worked as an RN
- the nurse practice environment	- the PES-NWI (Lake, 2002)

Measures

Variables	
Nurse Outcome - job satisfaction - nurse burnout - intent to leave - verbal abuse - confident that patients are able to manage their own care - complaints from patients or family	-Nurses were asked to describe how satisfied are they with present. -the MBI-HSS (Maslach, Jackson, & Leiter, 1996) -Nurses were asked to describe do they plan to leave their present job. -Nurses were asked to describe how they confident that their patients are able to manage their care when discharged from hospital -Nurses were asked to describe how often incident of verbal abuse toward RN
Patient Outcome -Quality of nursing care	-Nurses were asked to rate the quality of nursing care delivered to patients on their unit.

Findings

- Among the various hospital nurse surveillance capacity profiles, nurse practice environment and staffing were associated with patient and nurse outcomes.

- At the hospital level, after controlling for nurse characteristics, nurses working in hospitals with fewer staff were

  5% more likely to be dissatisfied in their job

  8% more likely to exhibit burnout

  5% more likely to receive verbal abuse than nurses working in hospitals with more staff .

Findings

- Nurses working in better work environments were

  28% less likely to be dissatisfied,

  31% less likely to exhibit burnout,

  31% less likely to have intent to leave,

  28% less likely to rate the quality of care on their unit as poor or fair,

  37% less likely to report complaints from patients or families,

  27% less likely to receive verbal abuse,

  28% more likely to be confident that patients are able to manage their own care when discharged than nurses working in poor work environments.

Conclusion

- These findings suggest that improving nurse staffing levels and creating environments supporting nursing practice may hold promise for improving patient safety and nurse retention.

Implication

- Nurse staffing and nurse practice environment may assist nurse administrators and nurse leaders to improve quality of care and nurse retention in Thai community hospitals and also other countries where patient safety and the shortage of nurses have been the issues of health care system.

Limitation

- This study is cross sectional design, longitudinal research is warranted.

- Generalizability

- Measures from perception of nurses

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References