Extended Work Hours and Physical Health Status of Registered Nurses Working in Community Hospitals, Thailand

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Thailand

The center of the Indochina peninsula in Southeast Asia

Population - 65.4 million (2010)

- 76 provinces
- 877 districts
- 7255 sub-districts
Five Level of Health Service System in Thailand

- Excellent Center
- Tertiary Care
- Secondary Care
- Primary Care
- PHC
- Self Care
- Family
- Village
- Sub-district
- District
- Province
- Community Hospitals
- University, General, Regional Hospitals

Referral System
• Health Service System in Thailand have faced nursing shortage
• Shortage of nurses have affected to quality of care
• To solve this problem
  • Overtime work of nurses
• Long working hours of nurses
  physical health status
Objectives

• To describe nurses’ extended work hours and physical health
• To examine the relationship between extended work hours and physical health.
Methodology

• Descriptive correlational research design
• Cross-sectional study
Population and Sample

• **Population**: registered nurses working more than 40 hours/week in five regional community hospitals in Thailand. (25,923)

• **Sample size**: based on Yamane’s formula (394) (Yamane, 1967)

• **Multi-stage sampling** by region and province.

• **Stratify random sampling** by size of community hospitals
Instrument

• Self-administered questionnaire

  Part 1: Personal data
  Part 2: Extended work hour of nurses
  Part 3: Physical risks (sharp and needle-stick injury and musculoskeletal disorders: pain in the neck, upper back, lower back, refer down the leg, and calf of the leg)

• Content validity – six nursing experts

• Reliability – Cronbach’s Alpha = .87
Data collection

- IRB approval
- Between June – July 2012
- Return rate = 85.03% (335)
### Results

- **Demographic data**
  - **Sex**
    - Female: 95.82%
  - **Age (year)**
    - Min: 23.00
    - Max: 55.00
    - Mean (SD): 33.96 (6.55)
  - **Educational Level**
    - Bachelor degree: 94.03%
  - **Hospital size**
    - Small: 56.42%
    - Large: 24.48%
• Nurses’ extended hour of work -- 8.82-19.34 hours per week
• The average of extra work = 14.00 hours per week
Physical health status of nurses

- The incidence rates of sharp and needle-stick
  - Sharp 24.80%
  - Needle-stick 27.80%

- Musculoskeletal disorders
  - The calf of the leg pain 69.00%
  - Neck pain 57.90%
  - Upper back pain 46.10%
  - Lower back pain 45.10%
  - Refer pain down the leg 25.10%
• There are relationships between Extended work hours and lower back pain ($r=0.12$, $p=0.05$) and refer pain down the leg ($r=0.17$, $p=0.01$).

• There is no relationship between extended work hours and sharp and needle-stick injury, pain in the neck, upper back, and calf of the leg.
Conclusions

• Risk of nurses occurred from long working hours.
• Risk preventing system should be set to protect nurses from hazard.
• Nurse administrators should identify risk management policy in their organizations.
Implications

• Nursing administration
  - Staff working hour policy
  - Follow up staff physical health

• Future research
  - Effects of extended work hours on patient safety and outcome
Thank you for your attention