

Nurses' Extended Work Hours: Patient, Nurse, and Organizational Outcomes

Wipada kunaviktikul RN, PH.D, FAAN

Faculty disclosure

Faculty Name:	Wipada Kunaviktikul RN, PhD, FAAN
Conflict of interest:	None
Employer:	Faculty of Nursing, Chiang Mai University
Sponsorship/Commerical support:	Faculty of Nursing, Chiang Mai University
Faculty Name:	Orn-Aong Wichaikhum RN, PhD
Conflict of interest:	None
Employer:	Faculty of Nursing, Chiang Mai University
Sponsorship/Commerical support:	Faculty of Nursing, Chiang Mai University
Faculty Name:	Apiradee Nantsupawat RN, Ph.D
Conflict of interest:	None
Employer:	Faculty of Nursing, Chiang Mai University
Sponsorship/Commerical support:	Faculty of Nursing, Chiang Mai University

Faculty disclosure

Faculty Name:	Raymoul Nantsupawat RN, Ph.D.
Conflict of interest:	None
Employer:	Faculty of Nursing, Chiang Mai University
Sponsorship/Commerical support:	Faculty of Nursing, Chiang Mai University
Faculty Name:	Rattanawadee Chontawan RN, Ph.D., FAAN
Conflict of interest:	None
Employer:	Faculty of Nursing, Chiang Mai University
Sponsorship/Commerical	Faculty of Nursing, Chiang Mai University
Faculty Name:	Areewan Klunklin RN, Ph.D.
Conflict of interest:	None
Employer:	Faculty of Nursing, Chiang Mai University
Sponsorship/Commerical support:	Faculty of Nursing, Chiang Mai University

Faculty disclosure

Faculty Name:	Supit Roongruangsri RN
Conflict of interest:	None
Employer:	Faculty of Nursing, Chiang Mai University
Sponsorship/Commerical support:	Faculty of Nursing, Chiang Mai University

Faculty Name:	Pikul Nantachaipan RN, Ph.D.
Conflict of interest:	None
Employer:	Faculty of Nursing, Chiang Mai University
Sponsorship/Commerical support:	Faculty of Nursing, Chiang Mai University

Faculty Name:	Treyaphan Supamanee RN, Ph.D
Conflict of interest:	None
Employer:	Faculty of Nursing, Chiang Mai University
Sponsorship/Commerical support:	Faculty of Nursing, Chiang Mai University

Faculty disclosure

Faculty Name:	Bunpitcha Chitpakdee RN, Ph.D
Conflict of interest:	None
Employer:	Faculty of Nursing, Chiang Mai University
Sponsorship/Commerical support:	Faculty of Nursing, Chiang Mai University
Faculty Name:	Tithinut AkkadechanuntRN, Ph.D, FAAN
Conflict of interest:	None
Employer:	Faculty of Nursing, Chiang Mai University
Sponsorship/Commerical support:	Faculty of Nursing, Chiang Mai University
Faculty Name:	Somjai SirakamonRN, Ph.D
Conflict of interest:	None
Employer:	Faculty of Nursing, Chiang Mai University
Sponsorship/Commerical support:	Faculty of Nursing, Chiang Mai University

Goal and objectives

Session Goal:

- To understand the relationship between nurses' extended work hours: patient, nurse, and organizational outcomes

Session objectives:

- To understand the relationship between nurses' extended work hours
- To understand the relationship between nurses' extended work hours: patient, nurse, and organizational outcomes

Background:

- Nursing shortages
 - ❖ In Thailand, current no. of nurses = 130,388, need more 33,112 nurses (Srisuphan, 2008 cited in Khunthar et al, 2013)
- Nursing shortage has been associated with increased nurse workloads
- May result in work errors, thus impacting patient, nurse, and organizational outcomes

Introduction and Background (Cont.):

- Working more than 40 hours per week was associated with medication errors (Olds & Clarke 2010)
- Nurses who worked longer than scheduled had decreased vigilance (Scott et al. 2013)
- When nurses work longer hours, they may develop bad attitudes toward work and feel dissatisfied with their jobs and may be absent from work (Zboril-Benson 2002)

Aim:

- To examine nurses' extended work hours (working more than 40 hours per week) and its relationship to patient, nurse, and organizational outcomes

Methods:

- Using multistage sampling
- 1,524 registered nurses working in 90 hospitals across Thailand
- The sample was drawn from RNs who worked in 51 community, 30 provincial, 5 regional, and 4 university hospitals.
- Research instruments
 - ❖ a demographic form
 - ❖ the Nurses' Extended Work Hours Form
 - ❖ the Patient, Nurse, Organizational Outcomes Form
 - ❖ the Organizational Productivity Questionnaire (Reliability of the OPQ was 0.81-0.97)
 - ❖ the Maslach Burnout Inventory (The reliability for the MBI of this study was 0.79-.94 for EE, 0.36-0.76 for DP, and 0.65-0.84 for PA)

Method (Cont.)

- The data were analyzed using descriptive statistics, Spearman's Rank Correlation, and Logistic regression

Ethical consideration

- ▶ Approval was obtained from the IRB of the Faculty of Nursing, Chiang Mai University, as well as from all hospitals involved

Results:

Demographic data

- female (96.64%)
- a mean age of 34.73 years
- more than half were married (50.96%)
- had a bachelor degree (92%)

Specific characteristics of EWH

- Average working 58.82 hours/week.
- The majority (79.34%) reported that a typical work shift was 8 hours long
- The majority of participants (80.33%) worked two consecutive shifts

Nurse outcomes:

- During their first year of work, participants perceived their health to be either poor (37.80%) or excellent (35.04%)
- After the first year, only 26.74% of nurses perceived their health as excellent
- Only 37.80% considered their health status as good when compared with other health professions
- 32.81% of nurses rated their satisfaction with their overall work as low
- 54.40% had moderate level of adequate sleep
- 50.79% reported a moderate level of balance between work and life
- 28.87% reported occasional or frequent lapses of attention and drowsiness when driving

Frequency and percent of nurse outcomes affected from EWH (n=1,524)

Nurse outcomes	Excellent	Good	Fairly good	Fair	Poor
Health status during first year of work	533(35.04%)	169(11.11%)	37(2.43%)	206(13.54%)	575(37.80%)
Health status after one year of work	407(26.74%)	258(16.95%)	94(6.18%)	323(21.22%)	432(23.38%)
Current health status compared with co-workers	300(19.69%)	576(37.80%)	229(15.03%)	276(18.11%)	140(9.19%)
	Highest	High	Moderate	Low	Lowest
Job satisfaction as a whole	163(10.72%)	421(27.68%)	258(16.96%)	499(32.81%)	179(11.77%)
Sleeping adequacy	25(1.64%)	235(15.42%)	829(54.40%)	395(25.92%)	37(2.43%)
Balance between work and lives	34(2.23%)	325(21.33%)	774(50.79%)	341(22.38%)	47(3.08%)
Organizational commitment	87(5.71%)	501(32.87%)	632(41.47%)	275(18.04%)	26(1.71%)
Intent to stay	140(9.19%)	391(25.66%)	653(42.85%)	258(16.93%)	81(5.31%)
	Frequently occurred	Occasionally occurred	Rarely occurred	Never occurred	Not driving
Drowsy or sleepy while driving	126(8.27%)	314(20.60%)	654(42.91%)	219(14.37%)	209(13.71%)

Spearman correlation coefficient between extended working hours/week and outcomes (n=1,524)

Outcomes	Correlation Coefficient	P value
Patients		
Patient identification errors	0.083	0.001
Pressure ulcers	0.073	0.004
Communication errors	0.068	0.008
Patient complaints	0.072	0.005
Nurses		
Job satisfaction as a whole	-0.084	0.001
Intent to stay	-0.052	0.042
Emotional exhaustion	0.085	0.001
Depersonalization	0.080	0.002
Organization		
Organizational productivity	-0.063	0.014

Results:

- Nurses who had EWH >16 hours/week were significantly more likely to perceive all adverse patient outcomes, including all four patient outcomes than participants working ≤ 8 hours/week

Prevalence of perceived patient outcomes and its association with extended work hours (n=1,524)

Patient outcomes	Communication errors	Patient identification errors	Patient complaints	Pressure ulcers	All 4 patient outcomes
Extended work hours/week	OR (95%CI)	OR (95%CI)	OR (95%CI)	OR (95%CI)	OR (95%CI)
≤8 hours	1	1	1	1	1
9-16hours	1.03(0.78-1.38)	1.00(0.72-1.38)	1.25(0.91-1.72)	0.96(0.71-1.29)	1.15(0.86-1.53)
17-24hours	1.38(1.00-1.92)**	1.76(1.24-2.49)*	1.68(1.18-2.38)**	1.13(0.81-1.58)	1.72(1.23-2.41)*
25-32hours	1.53(1.04-2.23)**	1.76(1.18-2.63)**	2.33(1.57-3.46)*	1.51(1.03-2.21)**	1.85(1.24-2.77)**
33-40 hours	1.45(1.01-2.08)**	1.50(1.02-2.21)**	1.38(0.94-2.05)	1.77(1.23-2.54)**	1.61(1.11-2.34)**

Note: Controlling for age, sex, and education
 * p≤ 0.001, ** p≤ 0.05

Conclusions and Implications for Nursing and Health Policy

- Average working 58.82 hours/week.
- The practice of nurses working extended hours is associated with patient, nurse, and organizational outcomes
- The results of this study can provide nurse leaders as well as policy makers with the evidence to propose more equitable nurse staffing and to revise mandatory overtime policies
- Thailand Nursing and Midwifery Council, the Ministry of Public Health, and public and private institutions should propose a new mandatory overtime policy stating that nurses should not work more than 16 hours in addition to the 40 hour week since working too many extra shifts or hours may have adverse patient outcomes

Thank you for your attention
Q & A