



# Nurse Burnout and Patient Outcomes

Apiradee Nantsupawat, PhD, RN

Raymoul Nantsupawat, PhD, RN

Wipada Kunaviktikul, PhD, RN

Faculty of Nursing, Chiang Mai University, Thailand

# Faculty Disclosure

Faculty Name:	APIRADEE NANTSUPAWAT, PhD, RN
Conflicts of Interest:	None
Employer:	Chiang Mai University
Sponsorship/Commercial Support	None

Faculty Name:	RAYMOUL NANTSUPAWAT, PhD, RN
Conflicts of Interest:	None
Employer:	Chiang Mai University
Sponsorship/Commercial Support	None

Faculty Name:	WIPADA KUNAVIKTIKUL, PhD, RN
Conflicts of Interest:	None
Employer:	Chiang Mai University
Sponsorship/Commercial Support	None

# Goals and Objectives

- Session Goal:

To understand the relationship between nurse burnout and patient outcomes.

- Session Objectives:

As a results of this session, the participants will be able to know how nurse burnout affects patient outcomes in Thai setting.



# Introduction

- Nursing is a profession that provide patients with the highest quality of care.
- Nurses work long, irregular hours and experience various work-related stress factors which can be related to the symptoms of burnout.
- Literature review suggested that there was association between work environment and burnout.

# Overview

- **Burnout:** a prolonged psychological response to chronic emotional and interpersonal stressors on the job (Maslach *et al.* 1996).
- **Emotional Exhaustion (EE):** lack of energy and a feeling that one's emotional resources are used up due to excessive psychological demands.
- **Depersonalization (DPER):** is characterized by the treatment of others as objects rather than people through cynical, callous, and uncaring attitudes and behaviors.
- **Reduced personal accomplishment (PACC):** denotes a tendency to evaluate oneself negatively due to the failure to produce results.



# Background

- Internationally, burnout is highly prevalent among nurses (Aiken *et al.*, 2011).
- Nurses experience high levels of job-related burnout (McHugh *et al.* 2011).

*Table 1. Nurse-self reports of high burnout level*

USA (2006)	Canada (1999)	UK (1999)	New Zealand (2004)	Germany (1999)	Japan (2006)	China (2009)	South Korea (2008)	Thailand (2007)
33%	39%	33%	34%	15%	58%	39%	60%	42%

From: Aiken *et al.* (2011). Importance of work environment on hospital outcomes in nine countries. *International Journal for Quality of Health Care*. 23(4), 357-364.

# Background

- Problems of burnout for hospital managers
  - *organizational effectiveness*
  - *patient safety and adverse events*
- Patient outcomes are seen as the most important indicators of quality.

# Background

- Previous reviewed literature presents the effects of burnout among nurses on patient outcomes including:
  - *quality of care* (Van Bogaert et al. 2010; 2013; 2014; Spanu et al. 2013)
  - *adverse events such as patient falls, medication error, and nosocomial* (Van Bogaert et al. 2014)
  - *infection* (Comiotti et al. 2012)
- Knowledge regarding burnout and patient outcomes are primarily in a Western setting and limited in the Thai context.



# Objective

- To investigate the relationship between nurse burnout and patient outcomes in community hospitals, Thailand.

# Method

- This study involved secondary analysis of cross-sectional data from the hospital nurse surveillance capacity profile in community hospitals, Thailand.
- Nurses working in inpatient completed and return 2,415 questionnaires (Nantsupawat A, Nantsupawat R, Kunaviktikul W., 2012).
- Institutional review board approval was obtained from Faculty of Nursing Chiang Mai University.

# Method

- The sample consisted of registered nurses who provided direct patient care and had more than 1 year work experience.
- The sample here consisted of 2,084 registered nurses from 92 hospitals.



# Measures

- *Burnout*
  - A Thai version of the Maslach Burnout Inventory Human Service Survey (Maslach *et al.*, 1996)
  - The 22-item questionnaire was measured with a 7-point scale from ‘never’ to ‘everyday’.
  - The MBI-HSS categories
- |      | Low                | Medium | High      |
|------|--------------------|--------|-----------|
| EE   | score of $\leq 18$ | 19-26  | $\geq 27$ |
| DPER | score of $\leq 5$  | 9-6    | $\geq 10$ |
| PACC | score of $\geq 40$ | 34-39  | $\leq 33$ |
- Cronbach’s alphas ranging from .71 to .90 (Maslach *et al.*, 1996).
  - In this sample, Cronbach’s alphas were 0.91 for emotional exhaustion, 0.77 for depersonalization, and 0.84 for personal accomplishment

# Measures

## *Patient outcomes*

Questionnaire utilized a 4-point Likert scale to assess the following:

- **Quality of care.** Rated from 'excellent' to 'poor.'
- **Confidence.** Rated from 'very confident' to 'not at all confident.'
- **Adverse Events** (*patient falls, medication errors, and nosocomial infections*). Rated from 'never' to 'frequently.'

# Data analysis

- Descriptive statistics
- Logistic regression
- Confounding factors: age, sex, education, year as RN
- All analyses were completed using STATA 10.1. The statistical level was  $p < 0.05$ .



# Results

<b>Nurse characteristics</b>		
<b>age, mean (SD)</b>	<b>33</b>	<b>7.64</b>
<b>Bachelor degree and higher degree in nursing, n (%)</b>	<b>2,084</b>	<b>100%</b>
<b>Female, n (%)</b>	<b>1,713</b>	<b>82.19%</b>
<b>Years of RN, mean (SD)</b>	<b>8.66</b>	<b>6.43</b>

# Results

Burnout domains	n (%)	Mean (SD)
High Emotional exhaustion	671 (32.19)	21.61(11.66)
High Depersonalization	371 (17.80)	4.92 (5.15)
Low personal accomplishment	729 (34.98)	35.44(9.26)

Outcomes	n	%
Quality of care		
poor/fair	339	16.27
very good/good	1744	83.73
patient fall		
Sometime/often	106	5.08
Never/rarely	1978	94.92
Medication error		
Sometime/often	219	10.50
Never/rarely	1865	89.50
Confident that patients are able to manage their care when discharged from Hospital		
Not/Somewhat	590	28.32
Very/confident	1493	71.68
Infection		
Sometime/often	284	13.62
Never/rarely	1800	86.38



Patient outcomes	Unadjusted		Adjusted	
	OR (95%CI)	P-Value	OR (95%CI)	P-Value
<b><i>Quality of care as Poor/Fair</i></b>				
High emotional exhaustion	2.63(2.05-3.37) ***	0.000	2.63(2.07-3.34) ***	0.000
High depersonalization	3.19(2.46-4.14) ***	0.000	3.21(2.46-4.19) ***	0.000
Low personal accomplishment	1.72(1.34-2.21) ***	0.000	1.73(1.36-2.19) ***	0.000
<b><i>Fall</i></b>				
High emotional exhaustion	1.32(0.82-2.11)	0.245	1.31(0.87-1.98)	0.181
High depersonalization	2.07(1.34-3.18) ***	0.001	2.06(1.33-3.20) ***	0.001
Low personal accomplishment	1.61(1.15-2.26) **	0.005	1.61(1.08-2.40)*	0.017
<b><i>Medication Error</i></b>				
High emotional exhaustion	1.47(1.05-2.07) **	0.025	1.47(1.10-1.97) **	0.009
High depersonalization	1.83(1.34-2.48) ***	0.000	1.83(1.31-2.55) ***	0.000
Low personal accomplishment	1.49(1.13-1.96) **	0.004	1.49(1.12-1.99) **	0.006
<b><i>Not/Somewhat confident in discharge readiness</i></b>				
High emotional exhaustion	2.18(1.75-2.71) ***	0.000	2.18(1.78-2.67) ***	0.000
High depersonalization	2.23(1.76-2.83) ***	0.000	2.25(1.77-2.85) ***	0.000
Low personal accomplishment	2.17(1.79-2.65) ***	0.000	2.18(1.79-2.65) ***	0.000
<b><i>Infection</i></b>				
High emotional exhaustion	1.33(1.00-1.75)*	0.044	1.32(1.02-1.72)*	0.033
High depersonalization	1.75(1.28-2.39) ***	0.000	1.74(1.29-2.34) ***	0.000

# Results

- *Higher emotional exhaustion was associated with significantly higher odds of fair/poor quality of care, medication error, Not/Somewhat confident in discharge readiness, infection.*
- *Higher depersonalization was associated with significantly higher odds of fair/poor quality of care, fall, medication error, Not/Somewhat confident in discharge readiness, infection.*
- *Lower personal accomplishment was associated with significantly higher odds of fair/poor quality of care, fall, medication error, Not/Somewhat confident in discharge readiness*

# Conclusion

- The results of this study indicate that high levels of job burnout among nurses are associated with negative outcomes for patient.
- Reducing job burnout holds promise for better quality of care and patient safety.



# Relevance to Clinical Practice

- Creating the job conditions supporting nurse practice may reduce burnout and improve patient safety in hospitals.

Thank you for attention  
Any questions or suggestions?