

How Nurse Health Impacts Quality of Care

Susan Letvak PhD, RN

Chris Ruhm PhD

Sat Gupta PhD

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Background

- A productive nursing workforce is vital to quality of care (Kane et al, 2007).
- Presenteeism: Reduction of work productivity due to health problems.
- Two major causes of presenteeism: musculoskeletal pain and mental health issues (especially depression)

Musculoskeletal Pain

- 15% of American workers report arthritis pain – sufferers more likely to be female and older.
- Research studies document that 25-80% of arthritis sufferers report activity limitations and decreased productivity
- Studies of nurses demonstrate as many as 60% of the RN workforce suffers from musculoskeletal pain/disorders.

Depression

- Approximately 9.5% of Americans have depression (NIMH, 2008).
- Research demonstrates that depressed workers report difficulty concentrating and an increase in errors.
- One study of staff nurses found a depression rate of 35% (Walsh, 2009).

Study Purpose

- While research has been conducted on the impact of musculoskeletal pain and depression in workers, little research exists on the impact of nurse health/presenteeism on the quality of their patient care.
- This study evaluated the influence of RNs' presenteeism on patient safety (medication errors and patient falls), self reported quality of patient care, and the associated economic costs.

Methods

- A cross-sectional survey of a random sample of RNs employed in hospitals in North Carolina was utilized.
- Surveys were mailed with return addressed, stamped envelopes provided. Follow up postcards were sent 2 weeks after mailing.
- A one dollar bill was provided as an incentive to complete/return the survey.
- 1171 surveys returned and complete for analysis (47% response rate).

Measures

- Individual and Workplace Characteristics
- Musculoskeletal Pain: NRS scale (0-10)
- Depression: PHQ-9
- Presenteeism: WPAI-GH
- Medication Errors: (over past 14 days)
- Patient Falls (over past 14 days)
- Perceived Quality of Care: Likert Scale (0-10)

Findings

	Sample Mean or N (%)	US Mean or N (%)
Age	44.7	46
Female	90.7%	92%
Race/Ethnicity		
White	85.2%	83.2%
Black	7.9%	5.4%
Years in Nursing	17.2	
Unit		
OR/PACU/OP surg	18.5%	
Critical Care	18.1%	
Maternal-Child	12.4%	
Medical-Surgical	10.5%	
ER/trauma	6.9%	
Other (peds, psych, inpatient rehab, etc)	33.6%	
Hours/week	36	36.7
Salary/hour	\$30.70	\$33.30

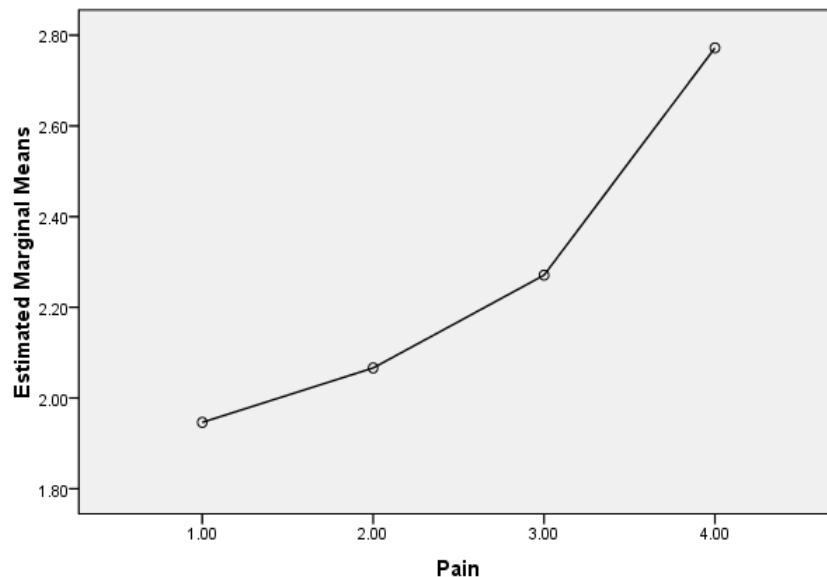
Findings

	Mean or Percentage
Musculoskeletal Pain (scale 0-10)	71% > 1 18.4% . > 5
Depression	18.3%
Presenteeism (0-10)	61.6% > 1 11% > 5
Quality of Care (0-10)	8.4
Medication Errors (past 14 days)	6.1%
Patient Falls (past 14 days)	3%

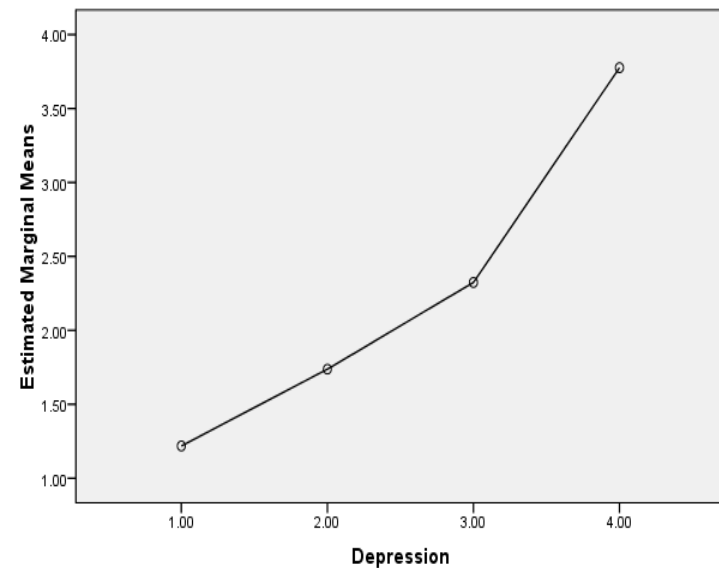
Findings

Pain and Depression are Significantly Associated with Presenteeism in Nurses

Estimated Marginal Means of Presenteeism



Estimated Marginal Means of Presenteeism



Findings

1. The number of patient falls go up by 18.3% with each increased unit of the presenteeism score. (Based on a Poisson regression model)
2. The number of medication errors go up by 18.0% with each increased unit of the presenteeism score. (Based on a Poisson regression model)
3. Quality of Care score goes down .15 points for each increased unit of the presenteeism score. (Based on a normal regression model)

Costs

	Cost reduction/RN	Cost for NC (millions)	Cost for US (millions)
Loss due to decreased productivity	\$14,439 (NC) \$15,541 (US)	\$876.9	\$22,667
Loss due to reduction in quality of care	\$2575 (NC) \$2899 (US)	\$157.5	\$4,070
Loss due to falls and medication errors	\$1346	\$82.3	\$1,964

Discussion

- The health of NURSES impacts their job productivity and their quality of care...
- Aging of the workforce and increasing stress/economic cut backs will likely lead to more “unhealthy” nurses in the workforce.
- Presenteeism (and resultant safety/quality of care concerns) is COSTLY.
- Keeping nurses healthy should be a workplace priority!

Discussion

- Reporting of staff health and wellbeing measures should be part of performance monitoring (Mannion et al, 2009).
- More “open” institutional policies with regard to declaration of health problems and limitations may help nurses get needed help.
- Work focused interventions geared to early recognition and treatment of pain and depression in nurses are called for.

Discussion

- Need more contracting with disability specialists who can help employees with chronic, disabling injuries and health problems to modify their work techniques
- Need education for first line managers on employee assistance programs and health resources policies.
- Need to establish safe lifting programs to prevent injury and assist staff with lifting.

Limitations

- Cross sectional design
- Only one state used in the sample
- Use of self report measures

* MORE RESEARCH IS NEEDED

Questions?



*"I started taining as a nurse,
but the work was too exhausting".*