

The Implications of a Hospital Break Policy: A Comparison of Two Regional Hospitals Using Survey Data

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Background

- 24/7 operations common and essential in hospital settings
- Poor sleep and excessive sleepiness are a concern for healthcare workers' performance and safety, and potential medical error
- Break scheduling and sanctioned napping practices have been examined as countermeasures in other operational environments
- Conducted a survey study to investigate break patterns, sleep, and sleepiness among employees at two community hospitals, one with a policy supportive of taking breaks and naps to mitigate fatigue and one without such a policy



Hospital Break Policies

HOSPITAL A

- Unionized
- 26-bed hospital

Break Policy with a Sleep Initiative

1. Policy includes a staffing plan to provide sufficient staff to carry out quality patient care and avoid fatigue. Applies to employees in nursing departments.
2. Employees are not scheduled more than four, consecutive 12-hour shifts. The hospital supports the combination of naps and caffeine during shifts, and encourages one 20-minute nap during the night shift per employee during break time and away from the work area.
3. Policy includes management and RN's responsibilities to manage fatigue.

HOSPITAL B

- Non-unionized
- 292-bed hospital

Break Policy Supports a Meal Break

1. Non-exempt employees are expected to take a 30-minute meal break unless approved to work through their meal break.
2. Non-exempt employees working more than 12.5 hours may request an additional unpaid meal break.
3. Employees can choose to take a paid rest period of 15 minutes for each four hours worked, when the work situations permits.

Online Survey through Qualtrics

- Available to all hospital employees
- Survey items:
 - Demographics
 - Work and sleep schedules
 - Break and nap practices
 - Pittsburgh Sleep Quality Index (PSQI)
 - Epworth Sleepiness Scale (ESS)



Pittsburgh Sleep Quality Index (PSQI)

- Respond to questions related to usual sleep habits during the past month.

1. Sleep duration	0-3
2. Sleep disturbance	0-3
3. Sleep latency	0-3
4. Daytime dysfunction	0-3
5. Sleep efficiency	0-3
6. Overall sleep quality	0-3
7. Need for sleep medication	0-3

PSQI Global Score

0 – 21 (>5 poor sleep quality)

Epworth Sleepiness Scale (ESS)

- How likely are you to doze off or fall asleep in the following situations, in contrast to feeling just tired?
- Eight situations (0-3)
 1. Sitting and reading
 2. Watching TV
 3. Sitting, inactive in a public place (e.g. a theatre or meeting)
 4. As a passenger in a car for an hour without a break
 5. Lying down to rest in the afternoon when circumstances permit
 6. Sitting and talking to someone
 7. Sitting quietly after a lunch without alcohol
 8. In a car, while stopped for a few minutes in the traffic

ESS Score

0-24 (>10 excessive sleepiness)

Sample of Healthcare Employees

- 1,338 healthcare employees
 - 1,285 surveys retained for analysis
 - Hospital A: 168 (13.1%) surveys
 - Hospital B: 1,117 (89.9%) surveys
- Over 14 primary occupations reported
- 702 employees (54.6% of sample; 50.1% were nurses) reported a direct patient care role
 - Direct impact on patient safety
 - Sample affected by Hospital A's break policy



Direct Patient Care Employees

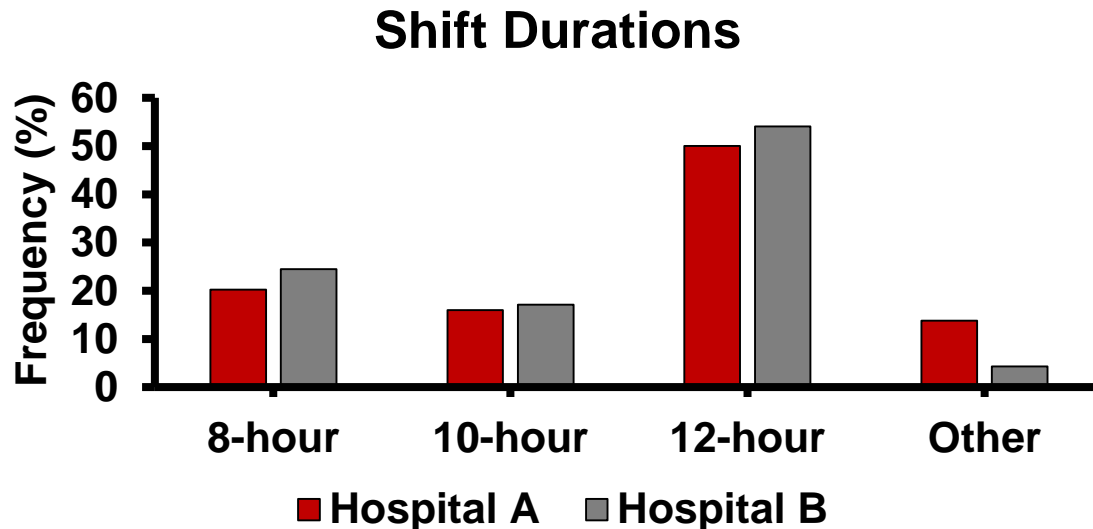
- 702 healthcare workers (601 females [86.0%])
 - 94 (13.4%) at hospital with break policy
 - 608 (86.6%) at hospital without break policy
- Demographics
 - No significant differences between hospitals:
 - Age or sex
 - Children living at home or spouse/partner living at home
 - Second employer or school enrollment



Direct Patient Care Employees

- Work Characteristics

- No significant differences between hospitals:
 - Years in current job role, Hours per week, Work week pattern, Shift start time
 - Proportion of employees working night shifts
- Significant:
 - Employees working “Other” shift durations (4.3-13.8%; $p=0.003$)
 - Employees working in their current shift for 3+ years (50.1-69.2%; $p=0.008$).



Break Patterns

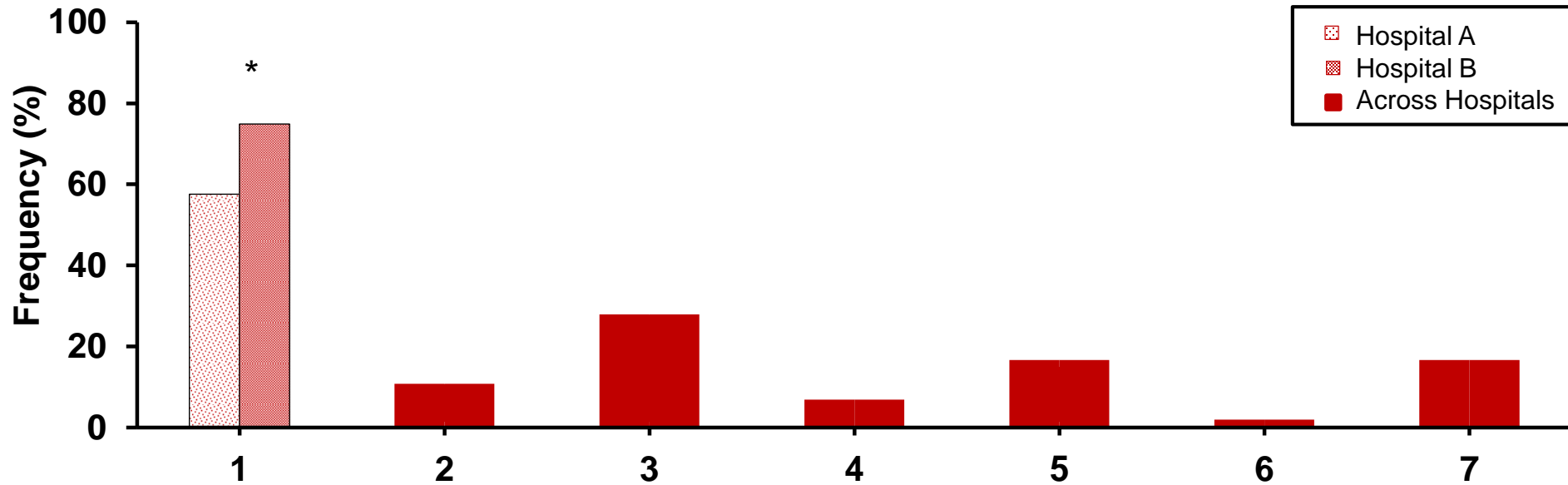
These percentages did not significantly differ between the two hospitals

- 29.1% reported not generally taking a break of at least 30 minutes
- 77.7% reported not having a quiet place to rest while on break
- Last meal break:
 - 7.4% did not take a break
 - 57.4% took a break less than 30 minutes
 - 38.1% sat down for a break but were not free of patient responsibilities



Reasons for Not Taking Breaks

- 1) I am too busy to take a break.
- 2) It is too stressful for me to plan a break.
- 3) I do not have enough access to relief staff.
- 4) I cannot find a peaceful place to take a break.
- 5) I don't think it is a priority for me to take a break.
- 6) My supervisor does not think it is a priority for me to take a break.
- 7) Other reasons I do not take a break (write in).



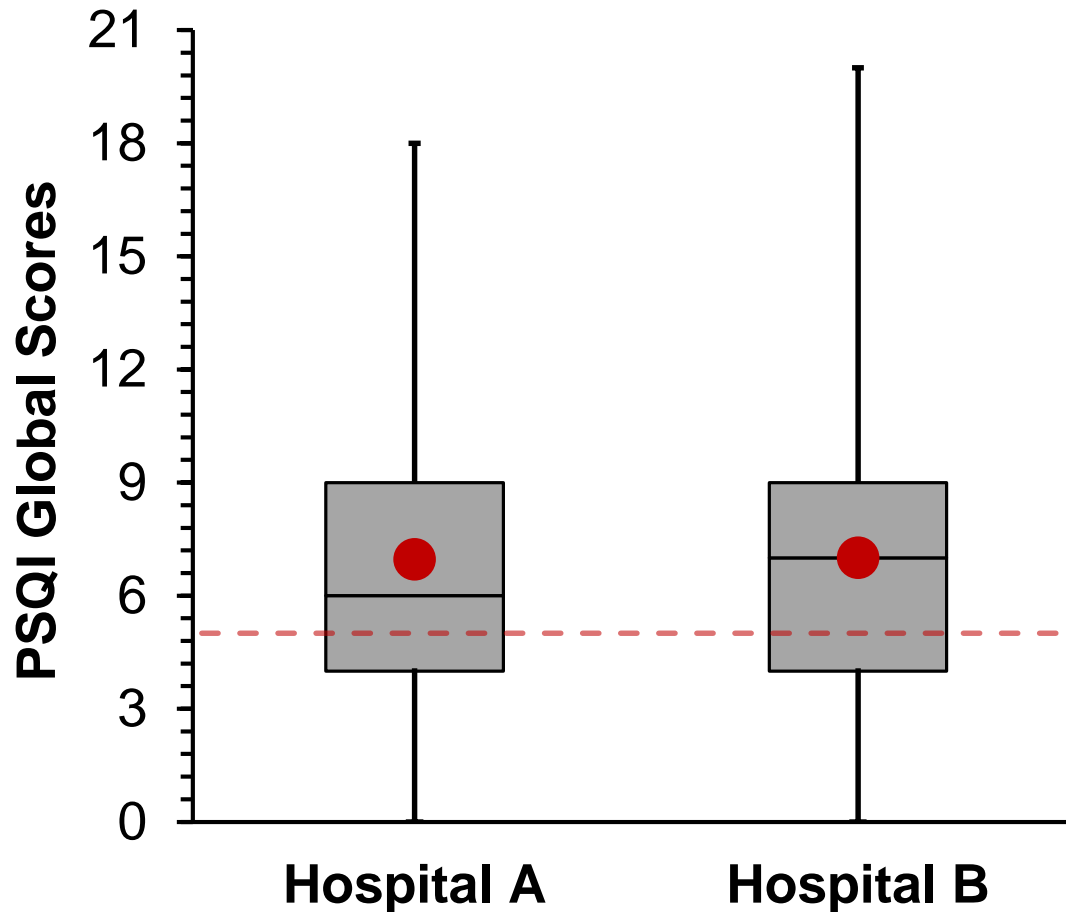
Napping and Sleep Schedules

- 48.4% of employees never take naps or take only a few naps each year
- Habitual sleep duration was 6.7 hours across hospitals
- None of the statistics (table) significantly differed between the two hospitals
- Sleep duration, reported sleep needs, and sleep latency did not significantly differ between employees generally taking 30-minute breaks and those generally not taking 30-minute breaks

	Hospital A	Hospital B
PSQI Sleep Duration (hr)	6.7 ± 1.2	6.7 ± 1.2
< 7 hours	47.8%	48.1%
< 5 hours	7.6%	4.8%
Reported Sleep Needs (hr)	7.7 ± 1.2	7.8 ± 1.1
PSQI Sleep Latency (min)	27.0 ± 22.5	25.8 ± 20.8

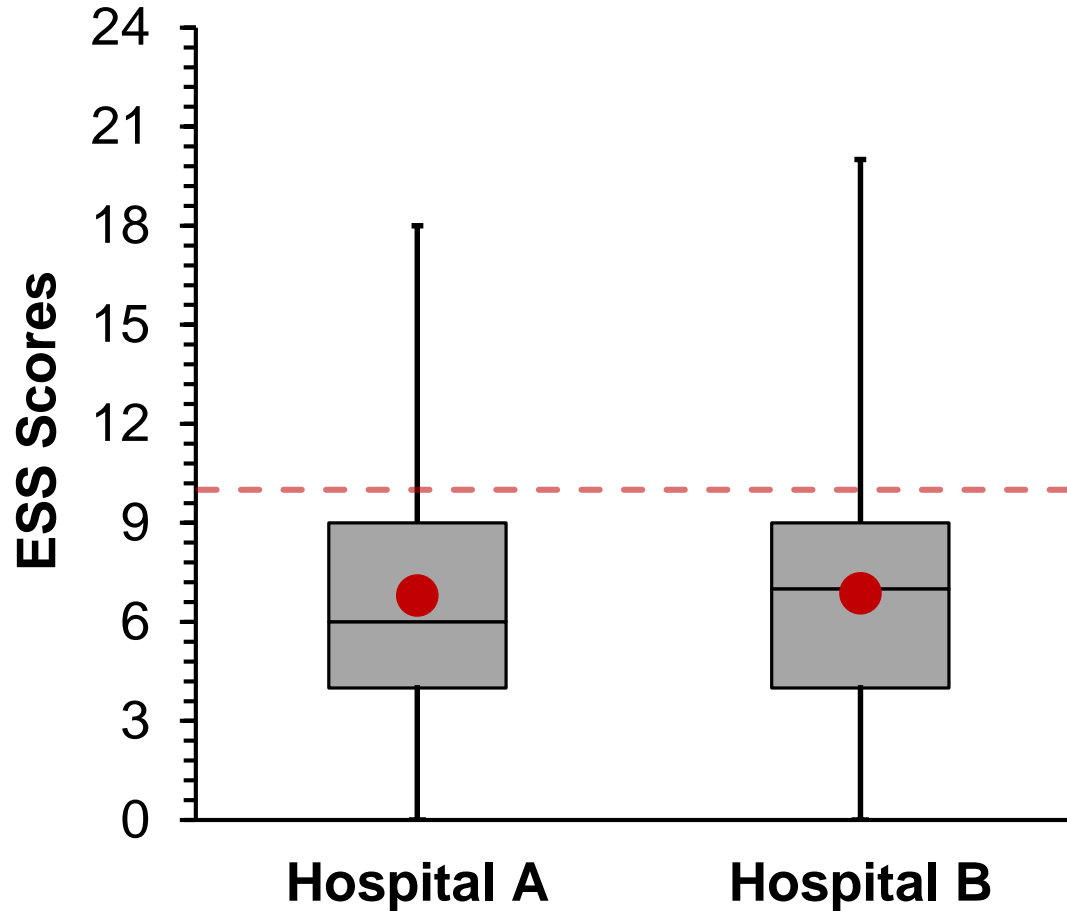
Pittsburgh Sleep Quality Index (PSQI)

- 58.1% had PSQI global scores > 5

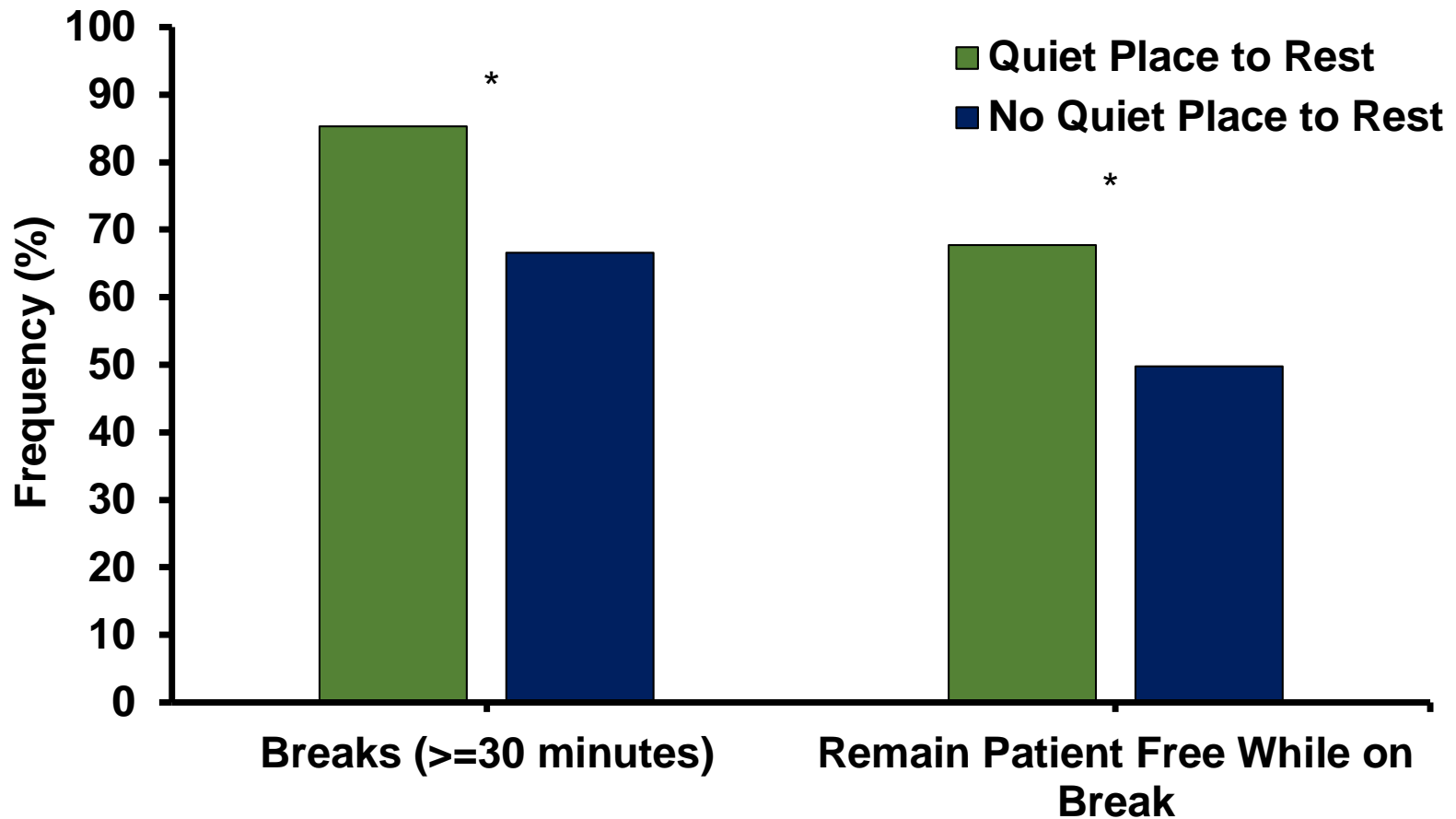


Epworth Sleepiness Scale (ESS)

- 18.6% had ESS scores > 10



Access to a Quiet Place to Rest While on Break?



- Significant: Break Patterns, Ability to Remain Patient Free While on Break
- Not significant: Nap Frequency, Reasons for Not Taking Breaks, Habitual Sleep Duration, Self Reported Sleep Needs

Access to a Quiet Place to Rest While on Break?

Pittsburgh Sleep Quality Index Global Scores

- PSQI global scores were significantly lower for employees with a quiet place to rest while on break (6.5 ± 3.8 v. 7.1 ± 3.7 , $p=0.030$)
- Odds ratio and the proportion of employees with PSQI global scores greater than 5 did not significantly differ (51.8% vs. 59.7%; $p=0.095$).

Epworth Sleepiness Scores

- ESS scores were significantly lower for employees with a quiet place to rest (6.2 ± 4.0 v. 7.0 ± 4.2 ; $p=0.030$)
- Odds ratio: 1.3 times more likely to have ESS scores greater than 10 (12.4% vs. 20.5%; $p=0.026$)

Summary

- Sleepiness levels, self-reported sleep quality, and break practices did not significantly differ between the two hospitals despite one hospital having a break policy with a fatigue management plan
- A break policy supportive of naps may, by itself, not suffice to support recuperative break practices
- *Access to a quiet place to rest may help to mitigate sleepiness in the workplace and enhance safety outcomes for healthcare workers and their patients*



Thanks to Our Research Partners

Employees at the Two Regional Hospitals

- Staff Involved in Data Collection
- Employees that Completed the Online Survey

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