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

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Problem: Around-the-clock operations are common in hospital settings. Poor sleep and excessive sleepiness resulting from circadian misalignment in such settings 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, but little research exists within healthcare professions. We 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 and one without such a policy.

Method: Healthcare workers of two regional hospitals were invited to participate in an online survey. Employees worked at either a unionized, 26-bed hospital with a break policy that supports 20-minute naps; or a non-unionized 292-bed hospital without a break policy. The online survey contained questions about demographics, work and sleep schedules, and break and nap practices, and included the Pittsburgh Sleep Quality Index (PSQI) and Epworth Sleepiness Scale (ESS). A total of 1,285 surveys were available for analysis.

Respondents reported more than a dozen different primary occupations. The results documented here focus on N=702 employees with direct patient care roles, of which 50.1% were nurses. The proportion of employees involved in direct patient care roles did not differ significantly between the two hospitals ($\chi^2(1)=0.07$, $p=0.79$). Shifts of 8-hour (23.9%), 10-hour (17.0%), and 12-hour (54%) duration were commonly reported, with shifts starting in the early morning (03:30–08:30; 68.4%), midday (08:30–15:30; 8.8%), or night (15:30–23:30; 22.8%). 50.4% worked at least 36 hours per week.

Results: Of the 702 employees with direct patient care roles, 29.1% reported not generally taking a break of at least 30 minutes, and 77.7% reported not having a quiet place to rest while on break. These numbers did not differ significantly between the two hospitals ($\chi^2(1)=1.90$, $p=0.17$; $\chi^2(1)=1.97$, $p=0.16$). Taking a break of at least 30 minutes was more common among employees with access to a quiet place to rest than among those without (85.3% vs. 66.6%; $\chi^2(1)=20.37$, $p<0.001$). Employees at the

hospital without a break policy more frequently reported being too busy to take a break ($\chi^2(1)=4.10$, p=0.043). Naps were infrequent, with over two-thirds of respondents napping occasionally (36.0%) or seldom (33.1%). There was no significant difference between employees of the two hospitals in nap frequency ($\chi^2(4)=2.55$, p=0.64) and, for those taking naps, in nap duration (78±43 minutes; Z=–0.46, p=0.64).

Sleep quality and sleepiness as measured by the PSQI and ESS, respectively, did not differ significantly between the two hospitals (Z=–0.22, p=0.83; Z=0.24, p=0.81). The average PSQI global score for sleep quality (7.0±3.8) was greater than 5, which is indicative of clinically relevant poor sleep quality. The average ESS score for sleepiness (6.9±4.2) was less than 10, which is below the threshold of 10 indicating clinically relevant excessive sleepiness. PSQI and ESS scores did not differ significantly between employees taking 30-minute breaks versus those not taking 30-minute breaks (PSQI: Z=1.38, p=0.17; ESS: Z=–0.78, p=0.44). Employees with access to a quiet place to rest had significantly lower PSQI scores, indicating better sleep (6.5±3.8 versus 7.1±3.7; Z=–2.17, p=0.030), and lower ESS scores, indicating less sleepiness (6.2±4.0 versus 7.1±4.2; Z=–2.18, p=0.029).

Discussion: In our sample of 702 healthcare workers with a direct impact on patient safety, napping was uncommon, and about one third (29.1%) reported they routinely did not take a break of at least 30 minutes. Many more (77.7%) did not have a quiet place to rest during breaks. Those who did have access to a quiet place to rest were more likely to take breaks of at least 30 minutes, and they exhibited better sleep quality and lower degrees of sleepiness. Surprisingly, there was no difference in this regard between the hospital with a break policy and the one without. However, employees at the hospital without a break policy were more likely to report that they were too busy to take a break.

Regardless of the availability of a quiet place to rest, average PSQI scores reflected clinically relevant levels of poor sleep quality. While poor sleep quality is expected in general among shift workers due to circadian misalignment, it is of particular concern for those with direct patient care roles given the potential for medical error.

Our results are limited by the fact that we compared only two hospitals – one a small unionized hospital with a break policy and the other a much larger non-unionized hospital without a break policy. Differences between employees' demographics, years of experience in their current job role, shift types and durations, staffing ratios and patient loads, and various other factors such as cultural norms and workplace expectations, as well as the self-report nature of the survey, may also have shaped the results. Nonetheless, our findings indicate that implementing a break policy is, by itself, insufficient to change workplace break practices and improve employees' sleep quality and sleepiness levels. Having access to a quiet place to rest may be critical for such a policy to be effective.

Summary: We investigated the use of breaks in employees with direct patient care roles at two community hospitals – one with a break policy and one without. Our results

suggest that implementing a break policy may, by itself, not suffice to support recuperative break practices. Providing 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.