

Hospital safety climate linked to both patient and nurse injuries: study

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A safe working environment for nurses is also a safe environment for the patients in their care, according to a new study led by public health researchers at Drexel University. Researchers, led by Dr. Jennifer Taylor, an assistant professor in Drexel's School of Public Health, found that safety climate was associated with both patient and nurse injuries, suggesting that patient and nurse safety may be linked outcomes. The study was published online in *BMJ Quality and Safety* in October.

For each 10-point increase in the average [safety](#) climate score, the odds of decubitus ulcer declined by 44-48 percent and the odds of nurse injury declined by 40-45percent.

Patient and nurse injuries are both cause for increasing concern in the health care industry, not only due to the pain and suffering experienced by those directly affected, but also because both types of injuries contribute to the rising cost of health care due to the need for extended hospital stays for [patients](#) and hiring temporary staff to replace injured nurses. However, most research considers either [patient safety](#) or occupational safety in isolation.

"Our findings suggest that patient safety and occupational safety for nurses may be related by common causes, and should be considered together in future studies," said Taylor.

The study included data from a large urban hospital, including 28,876 patient discharges on 29 nursing units employing 723 registered nurses.

For each nursing unit, researchers collected nurses' responses to a survey of safety attitudes (a measure of safety climate) as well as hospital-reported nurse and patient injury data collected the following year. Patient injury data included commonly-preventable hospital injuries: falls, pulmonary embolism/[deep vein thrombosis](#) (PE/DVT) and decubitus ulcers (commonly referred to as [pressure ulcers](#) or bedsores). Nurse injury data included needle-sticks, splashes, slips, trips and falls.

The findings also indicate that increased turnover of nurses should be considered a risk factor for nurse and patient injuries: With each 10 percent increase in a unit's nurse turnover rate, researchers observed a 68 percent increase in the odds of nurse injury, as well as increased patient risk for PE/DVT.

The researchers note that a study of this type could not identify the specific causes of the associations found between factors of safety climate and nurse turnover, and reported injuries. Future studies should track injuries and safety factors over time and in different types of hospital environments.

"This is one of few studies that have identified predictors of both [nurse](#) and patient [injury](#) in the hospital setting," said Taylor. "We need to look deeper into hospital organizations to understand the cause and effect relationship."

More information: Taylor JA, Dominici F, Agnew J, et al. *BMJ Qual Saf* (2011). [doi:10.1136/bmjqs-2011-000082](https://doi.org/10.1136/bmjqs-2011-000082)

Provided by Drexel University

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