Fatigue-management training found to improve sleep, safety, well-being for Seattle police

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Policing is a profession that features shift work and long hours, both of which can lead to insufficient sleep and fatigue. Because of the unique demands of the job, fatigue raises risks related to decision making, impulse control, driving, and other aspects of work.

In a new study, researchers tested the effect of a fatigue-management program on the sleep, mental health, well-being, and safety of police employees in Seattle. The training improved sleep duration as well as various aspects of employees' safety and well-being.

The study, by researchers at Washington State University (WSU) and the Seattle Police Department, was published in the Journal of Experimental Criminology.

"This is the first true experiment to test the effectiveness of fatigue-management training in a large urban U.S. police department," explains Lois James, assistant dean of research and associate professor in WSU's College of Nursing, who led the study.

"Our findings can help future interventions, guide evaluations, and establish evidence-based best practices for replication or adaptation nationwide." James is an expert whose work is promoted by the NCJA Crime and Justice Research Alliance, which is funded by the National Criminal Justice Association.
Past studies have consistently suggested that fatigue-management training can promote sleep, health, and well-being among police employees. However, all the studies used a simple pre- and post-training design, which is susceptible to selection bias and other problems.

This study used a randomized control design, building on past work by using both physiological measures of sleep (wrist actigraphy) and validated survey tools to measure sleep quality, sleepiness, depression, anxiety, and symptoms of post-traumatic stress syndrome (PTSD).

Researchers evaluated the effectiveness of an eight-week, modular, online learning fatigue-management training program in the Seattle Police Department. Data collection for the study began in the fall of 2020.

Of the department's 1,300 employees, 155 completed the training; of those, 75% were officers and 25% were civilian staff. Almost three-quarters of the respondents were white and two-thirds were male; respondents' ages ranged from 25 to 54 years old. Participants worked a variety of shifts, with about 35% working from 9 am to 5 pm and the rest working night, longer day, or evening shifts.

Participants were randomly assigned to either a treatment group (employees who took part in the training) or a control group (employees who were on a waiting list to receive the training after the conclusion of the experiment). Those who received the training did so for eight weeks, then received follow-up testing.

The program included education on practicing sleep hygiene, reducing stress, maximizing nutrition and exercise, dealing with circadian highs and lows, and countering fatigue.

The training significantly improved employees' sleep (adding 18 minutes
of sleep per 24-hour period); in contrast, employees who did not participate in the training slept 9 minutes less per 24-hour period.

Although this increase might not seem large, by the end of the intervention, training participants had increased their sleep to seven hours, on average, an amount that is favorably associated with better health for adults. Sleep quality also improved, although only significantly so for participants who worked the day shift.

Treatment group participants significantly reduced the severity of their PTSD symptoms, perhaps the result of the breathing and meditation modules, the authors suggest. In addition, the training significantly lowered rates of depression and anxiety, although effect sizes were small. Finally, taking part in the training reduced employees' likelihood of falling asleep while driving.

Among the study's limitations, the authors note that the effects of the COVID-19 pandemic may have influenced their results in ways that were difficult to control, limiting the study's generalizability outside of the pandemic era.

The pandemic delayed implementation of the study, and conditions during the pandemic as well as in the aftermath of the police murder of George Floyd (e.g., civil unrest, increased stress by police and the public) may have influenced the study, they note.

"Our study is the first to document the effectiveness of a fatigue-training intervention in promoting police employee sleep, mental health, well-being, and safety using a randomized control trial design," says Stephen James, assistant professor in WSU's Elson S. Floyd College of Medicine, who coauthored the study.

"Amid calls for defunding police, departmental understaffing, and police
burnout, our results suggest it would be wise to explore adopting fatigue-management programs for police nationwide."

"The training that we developed, implemented, and evaluated can reverse problems that arise as a result of police fatigue, reducing the number of employees who are on sick leave or out due to injury, and closing the understaffing gap so the community gets the services it needs," adds Loren Atherley, senior director of performance analytics and research and senior research scientist at the Seattle Police Department, who coauthored the study.


Provided by Crime and Justice Research Alliance


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