

0351 SLEEPING DISORDERS AND WORK-RELATED INJURIES AMONG FARMERS

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Background Sleeping disorder has been found to be associated with occupational injuries among railway workers in the France and students in China, but this association has not well been studied in farmers. This population-based study investigated the relationship between sleeping disorders and agricultural work-related injury among farmers in a north eastern province of the Peoples Republic of China.

Methods A multistage sample of 2264 farmers was selected from villages in Heilongjiang province. In May 2008, face-to-face interviews were conducted. Complete questionnaires were available for 2198 (97.1%) of the sample. Less than 7% (148) of the sample was excluded after the survey because their primary occupation was not farming. Farmers were questioned about work-related injury in the past year,

sleeping disorder, farming practices, alcohol use and sociodemographic factors.

Results The past year agricultural work-related injury rate was 12.2% (251/2050). Higher proportions of injuries were seen for males, 30–49 years old, those who worked on farms for 10 years or more, those who used motor vehicles, and those who used agricultural machinery and those who used alcohol. Logistic regression models showed that past year sleeping disorder to be associated with work-related injury. Sleeping disorder and other sleeping behaviour in the past year were examined in separate logistic models because of collinearity. In each model, the reference group was those farmers who never / rarely had difficulty of sleeping in the past year. Odd ratios of work-related injury among farmers who slept 7–8 h daily or less 7 h were respectively 1.136 (95% CI= 0.833 to 1.548), 1.585 (95% CI 1.042 to 2.414). Odd ratios of injury among farmers who sometimes had difficulty of sleeping at night or often had difficulty of sleeping at night were respectively 1.641 (95% CI 1.171 to 2.298), 2.110 (95% CI 1.364 to 3.265). Odd ratios of injury also significantly increased with level of difficulty of sleeping after waking up at night, having nightmares at night, being sleepy during the day, sleep after mid-night. Each sleeping disorder variable was significantly associated with injury while controlling for gender, age, years of farm work, driving a motor vehicle, agricultural machinery use and alcohol use.

Conclusions Sleeping disorders were significantly associated with an increased injury risk of work-related injury among Chinese farmers.