



## **CORRELATION BETWEEN SLEEP AND DEPRESSION AMONG COMMERCIAL DRIVERS AND MANUAL MATERIAL HANDLERS**

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### **Abstract**

**Objective:** The study focuses on the well-being of commercial drivers and manual material handlers and examining the sleeping habits in relation to depressive symptoms.

**Methods:** Data from two separate research studies were obtained totaling 1,645 participants, 828 factory workers and 817 commercial drivers. Self-reported questionnaires from participants were obtained for analyses. Data included demographic information, psychosocial factors including depressive symptoms, job tasks, ergonomic risks, personal behaviors including sleep quality and sleep duration, musculoskeletal disorders, past medical history, and activities. Participants completed a computerized questionnaire, underwent both a structured interview, and focused physical exam. Measurements were also taken including height, weight, anthropometry, blood pressure and cholesterol. Manual material handlers received their normal wages and truck drivers were given a \$20 gift card for participating in the study. Crude and adjusted odds ratio (OR) and 95% confidence interval (95%CI) were calculated for manual material handlers and truck drivers separately. ORs were adjusted for age, gender, body mass index (BMI), and diabetes mellitus.

**Results:** Logistics multiple regression analyses revealed that reports of poor sleep quality and poor sleep durations were associated with a relative risk of reporting depressive symptoms for both groups. Truck drivers who always, often and seldom reported restless sleep were statistically significantly more likely (Always OR=7.07, 95% CI 3.25-15.24, Often OR=4.56, 95% CI, 2.87-7.24, Seldom OR=1.55, 95%CI 1.07-2.29) as compared to those truck drivers who never had restless sleep. Among manual material handler's similar trends were seen with those reporting always, often, and seldom having restless sleep were statistically significantly more likely to have depressive symptoms (Always OR=2.25, 95%CI 1.00-5.08, Often OR=3.02 95%CI 1.93-4.73, and Seldom OR=1.57 95%Ci 1.07-2.29). For most 30-minute increments between 4 and 7 hours of sleep, truck drivers who slept 7 hours or less were statistically significantly more likely to report depressive symptoms as compared to those who slept 8 hours. Most odds ratios were between 2.00 and 4.00, with the exception of those who reported 4.5 hours of sleep (OR=32.40, 95%CI 4.14-253.65). Manual material handlers who had 5 or less hours of sleep were statistically significantly more likely to report depressive symptoms, with the odds ratios being between 1.95 and 2.85.

**Conclusion:** The findings indicates that reports of shorter sleep durations and poor sleep quality were associated with increased risk of depressive symptoms in commercial drivers and manual material handlers but seemed to have more of an effect on commercial drivers as compared to manual material handlers. These results persisted after adjustment for confounders.

**Keywords:** depressive symptoms, sleep duration, commercial drivers, sleep quality, manual material handlers, factory workers