

Abstract

Objective. To study the features of working conditions and modifiable risk factors among employees of locomotive crews depending on their place of work.

Materials and methods. The survey included 599 employees of locomotive crews, all of them were male, machinists and their assistants: 313 worked in Russian Railways and 287 in Saint Petersburg Metro. All the participants answered the questionnaire on the features of working conditions and behavioral risk factors with the help of medical personnel.

Results. The studied groups differed with $p < 0.05$ by working conditions. Russian Railways workers had 12-hour shift and metro employees 8-hour shift in 96 % and 81 % of cases, respectively. Machinists of Russian Railways were 4 times more likely to complain about overheating in summer and cooling in winter compared with metro workers.

Moreover, machinists of Russian Railways were 7.5 times more likely to report that they were forced to repair the railways compared with metro workers. Employees of Russian Railways were 2.1 times more likely to smoke and consume excess salt, and 2.5 times more often ate irregularly (1–2 times a day) compared with metropolitan employees. Machinists of Saint Petersburg Metro had 2 times lower physical activity and 1.3 times more often ate in fast food restaurants. Workers of the Russian Railways had higher body mass index, diastolic blood pressure and fasting blood glucose level. At the same time metro workers showed higher values of waist and hip circumferences. Compared with metro workers, employees of Russian Railways over the past 12 months took a temporary disability certificate 4 times more often, visited the physician 9 times more often, and were admitted to the hospital 3 times more often. Metro employees were 8 times more likely to be suspended from driving than employees of Russian Railways.

Conclusion. This study showed the difference between working conditions and the presence of modifiable risk factors among workers of Russian Railways and Saint Petersburg Metro. The results may be useful for the development of preventive programs for the Russian Railways employees.

Keywords: locomotive crew employees, health, metropolitan, working conditions.