

Nocturnal road traffic noise and children's sleep duration

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ABSTRACT

What is known about the association between nocturnal road traffic noise and sleep mainly comes from studies on adults. Knowledge regarding children is scarce. In the present study, we hypothesized that increased nocturnal road traffic noise is associated with shorter sleep duration in children.

The study used questionnaire data from 2665 7-year-old children included in the Norwegian Mother and Child Cohort Study (MoBa).

The main noise variable was the modelled L_{eq} for road traffic at the most exposed façade of the child's residential address.

In the questionnaire, mothers were asked about their child's sleep duration, with 5 categories: ≤ 8 - ≥ 12 hours. Responses were recoded into three categories: less than 10 hours, 10 hours, or more than 10 hours. It was also asked whether the children had sleep problems.

Covariate information from MoBa questionnaire, Medical Birth Registry of Norway and Statistics Norway.

Generalized ordered logistic regression and logistic regression analyses were conducted to investigate the association between modelled nocturnal road traffic noise and children's sleep duration and sleep problems, respectively.

Results will be presented at ICBEN 2017.