

Behavior change in noise-producing activities

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Introduction

More than 15% of the Swiss population suffers from road traffic noise exceeding the threshold limits (BAFU, 2009). Exposure to traffic noise may cause serious health problems, such as sleep disturbance (de Kluizenaar, Janssen, van Lenthe, Miedema, & Mackenbach, 2009) or high blood pressure (Babisch, 2006). In addition to technical improvements and government policies, motivating individuals to switch to noise reducing behavior (e.g., eco-driving and using of low-noise tires) has the potential for noise reduction. Therefore, the aim of this study was to investigate the process of behavior change regarding the production of individual road traffic noise with special focus on motivating and inhibiting individual factors.

Method

First, we conducted a literature research on continuum and stage models in the fields of environmental psychology, health psychology, and applied social psychology. Based on this literature we developed a comprehensive theoretical process model, with 5 stages, explaining environmentally relevant behavior change. Second, we conducted 16 individual interviews with experts in noise prevention and other relevant informants (e.g. motorcyclist, traffic planner). The constructs of the theoretical model provided the codes for the content analysis of the interview data.

Results

The findings of the interview analyses were used to refine our theoretical model. We identified general values, norms, and personal needs that increase or decrease the motivation to prevent noise. Furthermore, we explored aspects of perceived behavioral control,

attitudes, and social norms towards specific noise-reducing behaviors, as well as the importance of knowledge about these behaviors. Finally, influences of the structural context were examined. The analysis showed that there are diverse motivating and inhibiting factors in every stage of the change from noise-producing to noise-reducing behavior. Whereas the psychological factors are more influential in the first three stages, the contextual factors are more influential in the last two stages.

Outlook

In the next step of this project, we will conduct a quantitative survey to test whether the conclusions of the qualitative interviews hold in a larger sample and to provide further empirical data on which the process model of noise-producing activities can be based. The resulting insights will be used for the development of noise-reducing interventions.

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References

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