

## Are perceived noise control and its value related to behavioural determinants of residents' civic engagement? A cross-sectional study among older adults

Natalie RIEDEL<sup>1</sup>; Adrian LOERBROKS<sup>2</sup>; Joachim SCHEINER<sup>3</sup>; Susanne MOEBUS<sup>4</sup>; Irene VAN KAMP<sup>5</sup>; Thomas CLASSEN<sup>6</sup>; Heike KOECKLER<sup>7</sup>; Gabriele BOLTE<sup>1</sup>

<sup>1</sup> Bremen University, Germany

<sup>2</sup> Düsseldorf University, Germany

<sup>3</sup> TU Dortmund University, Germany

<sup>4</sup> University Hospital Essen, Germany

<sup>5</sup> Institute for Public Health and the Environment, The Netherlands

<sup>6</sup> Centre for Health NRW, Germany

<sup>7</sup> HSG Applied University for Health Sciences, Germany

### ABSTRACT

We had suggested that residents' perception and value of being able to control one's personal traffic noise exposure at home are relevant for the readiness to participate in noise policies. Further, we had framed residents' participation readiness by specifying behavioural determinants (positive attitude towards and subjective norm of taking action for a quiet environment as well as behavioural control perceptions, i.e. noise-related institutional knowledge, self-efficacy, and communal mastery). Using cross-sectional questionnaire data on about 1,600 older adults in Germany in 2016 and logistic regression analyses, we modelled the probability of agreement to each behavioural determinant in relation to residents' perceived noise control (PNC) and its value as measured by six point Likert-scales. Besides other covariates, knowledge of public consultation in noise action planning, internet access, and social network were added to the models. Agreement varied from 36% for a positive subjective norm to 72% for a positive attitude. Overall, results confirmed positive associations between perceived noise control, its value and behavioural determinants (e.g.  $OR_{PNC} = 1.21$ , 95%-CI [1.09-1.35],  $OR_{value} = 1.20$ , 95%-CI [1.13-1.28] for behaviour-specific self-efficacy), indicating a link between perceived exposure-specific characteristics and participation readiness. Next, we will investigate whether our selected behavioural determinants statistically predict intended and performed civic engagement.

Keywords: road traffic noise exposure, perceived noise control, participation readiness, behavioural determinants

<sup>1</sup> nriedel@uni-bremen.de