

EGU21-15315

<https://doi.org/10.5194/egusphere-egu21-15315>

EGU General Assembly 2021

© Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.



Is heat a hot topic? – Exploring risk perception, risk communication, and adaptation to heat stress with a household survey

Anna Heidenreich and Annegret Thieken

University of Potsdam, Environmental Science and Geography, Geography and Disaster Risk Research, Germany
(annaheidenreich@uni-potsdam.de)

Due to the ongoing climate change heat waves increase in numbers and in duration in Germany. Extreme heat poses a massive health threat, in particular if no or maladaptive behaviour is shown.

In summer and autumn 2019, we conducted a household survey on personal perceptions of heat stress. In total, 1.417 people from three different German cities participated via telephone or online. Based on the Protective Action Decision Model (PADM), which we adapted to heat hazard, we analysed links between risk perception, different context factors, perceptions of social stakeholders, different heat warning formats, and adaptation behaviour/intention. For statistical evaluation, correlation analyses, ANOVA, and regression analyses were executed.

People with higher climate change beliefs were more aware about heat warnings, reported higher negative impacts of heat stress on their health and everyday life and esteemed stakeholders from the health, care and social sector as responsible to carry out protection measures against heat. ANOVAs showed that the presentation of action recommendations along with official heat warnings leads to higher adaptation intentions. Correlation and regression analyses reveal connections between climate change beliefs and heat risk perceptions, other context factors and adaptation. PADM proves to be a useful framework for heat risk perceptions and behaviour and can be recommended to risk managers. To foster risk awareness and private adaptation measures further, tailored risk communication strategies need to be developed and evaluated.