

OPP: SUSTAINABILITY & CRISIS

Climate change in the context of informal care – The development of an app for caregivers

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Purpose The Austrian project “Climate Change and Health in the Context of Informal Care” aims to improve digital health literacy among informal caregivers (family caregivers & 24h caregivers) through the development of an app designed to support them during heat waves, providing essential information to minimize health risks and ensuring climate-sensitive care. (Research) Projects can be found in developing apps for professional and informal caregivers to support them in their daily caring activities (e.g. Hudelmayer et al., 2023; Sala-González et al., 2021; Vandersman et al., 2021). Little scientific information exists about apps specifically for informing and educating informal caregivers on the health effects of climate change, on explaining and showing them how to protect themselves and their patients from health-worsening consequences. **Method** This project contains an interdisciplinary approach with a mixed-model longitudinal study design and a participatory focus (von Unger, 2014). It is coordinated by the ÖSB Consulting GmbH as a technical partner, supported by the Arbeitsgemeinschaft Pflegegruppe (a consortium for 24h caregivers) as a networking partner, and scientifically led by the IMC Krems. In workshops shortly before summer in 2024 and 2025, informal caregivers, firstly, will be generally informed about the health effects of climate change. Secondly, they will get instructions on how to use the first prototype of the app and will be asked to use it during summertime while they are caring for their patients. Their digital health literacy will be assessed before the workshops and after summertime (Griebler et al., 2021). During the workshops, qualitative interviews will be conducted with some participants to understand their attitudes toward climate change and their knowledge of the health effects on their patients. Besides receiving statistically measurable data this research approach offers a deeper understanding of the target audience in their role as informal caregivers and their needs in terms of app performance and on how information about health and climate change has to be delivered. Additionally, participants are asked to provide feedback for the app development process during the workshop, during their usage, and in a standardized assessment on feasibility after summertime. In this sense, the software engineering process is based on action research (Stol & Fitzgerald, 2018); the quantitative and qualitative data will inform the revision process of the app before the empirical phase in 2025. **Results and Discussion** Studies can be found providing explanations on how heat waves affect elderly people with different health conditions but giving rather general recommendations for protecting them on hot days; not specifically related to individual diagnoses. Therefore, the app will contain (1) scientifically based and for the target group adapted general recommendations about caring for elderly people during a heatwave and (2) about their self-care in this situation. It will (3) also be equipped with push messages as alerts beforehand a heatwave (e. g. containing information about necessary preparations for the caring setting), and (4) important information on recognizing emergencies, on possible interventions in preventing or acting during an emergency. (5) All information will be personalized in terms of any possible contraindications concerning the provided diagnoses of the individual elderly person in care. In September 2024, the first empirical phase has been performed. Therefore, we will focus our presentation on the conceptual setup of the research project. First insights will be shown on the suitability of the participating approach, as well as first results regarding the digital health competence of informal caregivers and their attitudes and knowledge towards climate change and its effects on caring for elderly people. Moreover, our preliminary results will provide insights on how a research project needs to be structured and organized to successfully win informal caregivers of different national and cultural backgrounds and of different caring positions (24-hour caregivers vs. family caregivers) for participatory research projects.

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