

## **Sustainability | Individual communication**

### **IC - (21042) - POTENTIAL CONFOUNDING FACTORS IN REPEATED-MEASURES ONLINE FIELD EXPERIMENTS WHERE PARTICIPANTS LISTEN TO NATURAL SOUNDS FOR RESTORATION AND WELL-BEING**

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#### **Background and objectives**

During the COVID-19 pandemic, free-of-charge and easy-to-use ways to tackle everyday stress are needed. Listening to natural sounds (e.g., birdsong) is claimed to be restorative and require no specific training or initial investment cost. It could therefore be worth implementing in the real-life context. However, most research so far has been based on one-off, laboratory-based experiments. To bridge this research gap, we aimed to (1) develop and assess protocols for repeated-measures online field experiments in which people can participate at home and (2) examine if repeated listening to natural sounds is psychologically more restorative than other means of relaxation. In this presentation, we focus on reporting (1).

#### **Process and methods (for empirical research)**

In Study 1, approximately 200 university students participated in an online experiment lasting for seven days. Participants were randomly allocated to Group 1 (listening to natural sounds), Group 2 (sitting in silence), Group 3 (surfing the Internet), or Group 4 (no intervention), and completed questionnaires before and after these 10-minute interventions every day. In Study 2, 90 university students participated in an online experiment lasting for 14 days. Participants were randomly allocated to Group 1 (listening to natural sounds in the first week and music in the second week) or Group 2 (same but in reverse order), and completed questionnaires before and after these 10-minute interventions every day.

#### **Main results (or main arguments in the case of critical reviews)**

Participants' preference for natural sounds changed over time (Study 1). The day of the week (i.e., Monday, Tuesday, etc.) might be a confounding factor on participants' mood states (Studies 1 and 2). Participants' absence and withdrawal increased during weekends (Studies 1 and 2).

#### **Implications for research and practice/policy | Importance and originality of the contribution**

These novel results have implications for the design of repeated-measures online field experiments. This will serve as a stepping-stone to further research on the benefits of natural sounds on our mental health and well-being.

**Palavras-chave : repeated-measures experimental design, online field experiment, natural sounds, restorative environment, well-being, mental health**