

Project title: Health behavior change during COVID-19 pandemic: the focus on handwashing

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Background and objectives

In March 2020, the World Health Organization (WHO, 2020) and US Centers for Disease Control and Prevention (CDC, 2020) issued guidelines on the best ways to prevent COVID-19, with handwashing being the key preventive behavior. Even before these guidelines were issued, people started to change their behaviors, with 44% of the general population declaring washing hands more frequently (Abacus Data Bulletin, March, 2020). Importantly, handwashing has a preventive potential if performed in specific situations: before eating; before, during and after preparing food; when caring for the sick; after coughing or sneezing; after handling animals or animal waste; when hands are visibly dirty; and after toilet use (WHO 2020; CDC, 2020).

Unfortunately, research usually focuses merely on handwashing frequency but disregards the situational contexts. It is also unclear if/how handwashing behaviors change, as COVID-19 morbidity and mortality rates fluctuate. Using handwashing as a health behavior example, this project will provide insights into the complexity of behavior change processes during the COVID-19 pandemic. In particular, the following issues will be investigated:

1. What are the levels of adherence to handwashing guidelines, across the periods varying in COVID-19 morbidity and mortality, across countries with different COVID-19 trajectories?
2. Would anxiety, perceived risk of contracting SARS-CoV-2 virus, and beliefs about effectiveness of handwashing explain handwashing behavior changes? Do the patterns of associations between the emotions, beliefs and behaviors change, as COVID-19 morbidity and mortality rates fluctuate over time and across countries?
3. As COVID-19 morbidity and mortality rates would decline, handwashing adherence would (most likely) decline. This project attempts to identify the turning points at which people reduce their adherence to handwashing behavior. Finally, we will test if emotions and beliefs (included in protection motivation theory and the Health Action Process Approach model) would help to predict if/when such turning points occur, whether people relapse to old habits, or if they continue to adhere to handwashing guidelines.

Methods

Data will be collected twice (with a 1-month gap between the measurement points) among adults from general population in at least 10 countries, including, e.g., Poland, Germany, Portugal, Switzerland, Italy, France, Romania, Israel, Gambia, Canada, China, Malaysia, Singapore, and Australia. At least 4,000 participants will fill in the questionnaires, delivered via an online platform. Validated measures of emotions (anxiety) and beliefs (included in protection motivation theory and the Health Action Process Approach model) will be used, together with a handwashing questionnaire, accounting for the situational adherence. Data collected from the study participants will be analyzed accounting for the trends of COVID-19 morbidity and mortality, as reported by WHO.

Expected Impact

Adoption and maintenance of adherence of handwashing guidelines is limited in the general population and the existing interventions to improve adherence in general population yielded small effects. A shift in an approach to explaining handwashing behavior is needed to pave the way to new, more effective interventions. COVID-19 pandemic acts as a trigger, increasing handwashing adherence, but behavior change may be short-lived and a speedy return to old habits may be expected, increasing the likelihood of an infection. The proposed research is among the first to deliver findings on changes in adherence to situational guidelines on handwashing, in the context of changes by COVID-19 morbidity and mortality rates in (at least) 10 countries. We will identify modifiable psychosocial factors that are the strongest predictors of the maintenance of handwashing adherence and recovery from lapses.

Overall, the project will result in a rich dataset accounting for data from over 4,000 adults residing, e.g., in Poland, Germany, Portugal, Switzerland, Italy, France, Romania, Israel, Gambia, Canada, China, Malaysia, Singapore, and Australia. We will obtain novel and strong evidence for complex behavior change processes, occurring during COVID-19 pandemic.