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Demand in Times of Crisis

1) What are the challenges and the key insights Social Practice Theories (SPT) offers?

Covid-19 highlighted a need to understand how water use responds to emerging crises. On one hand, Covid-19 was unlike any crises experienced in modern history, widespread confinement to homes during lockdown meant that much water use relocated from spaces like gyms, restaurants, workplaces into the home, with rapid and substantial changes in the location and timing of water use. On the other hand, Covid-19 like other crises, shows that rapid and meaningful changes to routine can and do occur, and that there is value in trying to understand how these might be directed towards sustainability. Furthermore, crises interlink, and the longevity of Covid-19 and coincidence with the energy crisis, extensive drought, and extreme temperatures means that we have had the chance to observe water use adapting to conspicuous societal challenges.

Practice-oriented research provides ideas and tools to help us understand the complexity and variety of impacts that crises have on domestic demand. Though conducting social practice research can be difficult during times of crises, virtual methods are feasible and offer valuable insights. Furthermore, previous research can provide grounds for interpreting data from water meters and other sources to understand why demand is changing or the impact of a crisis.

2) What is the key study and what does it show?

Artesia conducted a water industry collaborative study to quantify the impact of Covid-19 on water use in the UK. During February-October 2020 this study observed an increase in water demand with a rise in household consumption of 9 - 13% and a decrease in non-household consumption of 25%. These findings were echoed in Cahill et al. (2021), a rapid review of international studies on the impacts of Covid-19 on water demand. Regional and temporal variations were also apparent, with larger increases in the south of England and the greatest increase during hotter and drier periods. With an understanding that people were spending more time indoors, SPT ideas would lead us to question what parts of people's everyday life changed to lead to such an increase in household consumption. We could then apply existing practice evidence to this data set to explore new insights and set future agendas.

As part of this work, Artesia collaborated on a snapshot study with The University of Manchester which aimed to understand the impacts of Covid-19 on the social practices of water use, exploring how and why these might have changed (Alda-Vidal et al. 2020). This rapid study helped stakeholders zoom in to a sample of individual practices and gather insight into how people were doing water consumption differently during this time. For example, evidence of water practices previously outsourced becoming part of practices within the home became apparent.

3) What does our Knowledge Transfer Partnership (KTP) primary research reveal?

Our interviews and focus group data showed how crises shape immediate changes in water use, and the longer-term adaptation (or recovery) of practices. For example, while working from home during the first Covid-19 lockdown, people reflected on a relaxation of dress codes and personal grooming that could offer potential for less water use. Similarly, convenient moments to do laundry decoupled from Monday-Friday 9-5 routine, with implications for the timing and peakiness of water use. In the longer term, some people have returned to the workplace and pre-Covid practices resumed. However, for some, working from home (full or part-time) has continued with lasting implications for water use, including shifting social standards and expectations about presentability for work.

People's experiences of other crises - the energy crisis, extreme heat, extensive drought - were also apparent in the data, revealing other important dynamics. People described how the cost-of-living crisis had increased reflexivity, calling previously taken-for-granted routines into question, and sparking experimentation with alternative ways of doing. For example, using shorter laundry cycles and drying clothes on a line to avoid costs of associated energy and water use.

4) How could you plan to take these ideas forward in your work

Applying an SPT lens to reflect on your response to previous crises can help you think differently about your approaches (planning strategies, intervention approaches, institutional agendas). You could uncover new insights into how and why people responded the way they did to a particular crisis and areas where your responses might not have fully addressed people's behaviours. These insights can be built into future crisis planning; embedding a practice awareness will equip you with the know-how to explore and discover the factors which may lead to changes in consumption patterns and volumes.

In future crises, conducting qualitative and mixed methods research quickly can generate a snapshot of evidence of how and why people's practices are changing in response to a particular event. This can help create an evidence basis which can inform your institutional response to crisis and set management agendas. For example, a deeper understanding of how people are responding to drought conditions might then inform how you design your mitigation and intervention plan. Completing a credible social practice analysis means spending time reflecting and effort exploring the data and its context. It means reframing questions, scrutinising methodologies, and drawing on existing practice insights and evidence as well as emerging ones in the data.

References

Alda-Vidal, C., Smith, R., Lawson, R., & Browne, A. L. (2020). *Understanding changes in household water consumption associated with Covid-19.* Artesia Consulting.

Cahill, J., Hoolohan, C., Lawson, R., and Browne, A L. (2021) Covid-19 and water demand: A review of literature and research evidence. *Wiley Interdisciplinary Reviews: Water, 9(1),* e1570. Available at: **https://doi.org/10.1002/wat2.1570**

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