

## HICSS minitrack introduction: self-management of chronic diseases and conditions

Kourosh Dadgar  
University of San Francisco  
[kdadgar@usfca.edu](mailto:kdadgar@usfca.edu)

Zach Sun  
Whitworth University  
[zsun@whitworth.edu](mailto:zsun@whitworth.edu)

### Abstract

*Chronic diseases account for the highest number of deaths and disabilities in the US and around the world. The patient-centric design, use, and implementation of advanced technologies empower patients in their daily life-long self-management of symptoms, treatments, life style changes and psychological consequences of their conditions. This minitrack is an opportunity to investigate and explore the role of information and communication technologies in improving quality of care and life for the patients with chronic diseases and conditions (Dadgar & Joshi, 2018).*

**Keywords:** Self-management, Chronic diseases and conditions, Information and communication technologies, Healthcare management, Patient-centric technologies.

### 1. Introduction

The papers that will be presented in the minitrack self-management of chronic diseases and conditions investigate and examine the impact and role of information and communication technologies for the patients with chronic illness, dementia, and autism. In the first paper (Jia et al., 2025), the use of AI-driven chatbots is examined for transforming grief management for the individuals with chronic illness, in the second paper (Ulapane et al., 2025) a theoretical lens is proposed for co-designing a virtual helper for dementia cares in Australia, and in the third paper (Sumanasekera et al., 2025) the use of telehealth is investigated to support autism self-management. In the following sections, a brief summary of each study will be provided to explain their research objectives, methods, and outcomes.

### 2. AI-Driven Grief Chatbots for Individuals with Chronic Illness

Jia et al. (2025) investigate the ethical considerations of using AI-enabled chatbots in

managing grief in patients with chronic illness drawing on the value sensitive design (VSD) methodology and recommend guidelines for designing such services. They examine literature review and identify values important to implicate in chatbots and categorize chatbots based on their functionalities and value-sensitive features. They provide general guidelines for designing grief chatbots.

### 3. Codesigning a Multilingual Virtual Helper for Dementia

Ulapane et al. (2025) present co-designing a digital health intervention for multi-lingual patients in Australia with dementia care providers following the case study methodology. The digital intervention that is developed in the study is an inclusive website and a virtual helper for ethnically diverse communities in Australia. Their results recommend improvements in the usability and aesthetics of the digital tools that are used to provide care for the patients with dementia.

### 4. Supporting Self-Management for Autism through Telehealth

Sumanasekera et al. (2025) investigate a self-management program that supports individuals with autism and their parents following a case study approach that focuses on a single interactive telehealth program that provides services in multiple countries. They collect data from New Zealand parents who have been in the program for a year by conducting semi-structured interviews. Their results show that self-management programs for autism should focus on educating parents and empowering them with problem solving skills and self-care awareness, activating healthcare, social, community, and spiritual resources, and helping adapt to the life style changes and live with the psychological consequence of autism. These goals were accomplished through a self-management program delivered through telehealth services.

## 5. Conclusion

The HICSS 2025 papers in the minitrack self-management of chronic diseases and conditions examine the effectiveness of advanced technologies and tools such as AI-enabled chatbots and telehealth services to support patients and their families in the self-management process and activities. The focus of the papers is on empowering patients and individuals in managing their chronic conditions and diseases and providing guidelines and frameworks that will help developers to design patient-centric features and services. The studies in the minitrack investigate self-management digital tools and programs from around the world and promote inclusive multi-lingual diverse perspectives to incorporate and implement features and capabilities in the self-management systems.

## 12. References

- Dadgar, M., & Joshi, K. D. (2018). The Role of Information and Communication Technology in Self-Management of Chronic Diseases: An Empirical Investigation through Value sensitive design. *Journal of the Association for Information Systems (JAIS)*, 19(2), Article 2
- Jia, S., Chi, O. H., and Tseng, H-T. (2025). AI-Driven Grief Chatbots: Transforming Grief Management for Individuals with Chronic Illness. *Hawaii International Conference on System Sciences*.
- Sumanasekera, K., Todorova, T., and Mills, A. (2025). Supporting Self-Management for Autism Spectrum Disorder through Telehealth. *Hawaii International Conference on System Sciences*.
- Ulapane, N., Wickramasinghe, N., Dang, T.H., Thodis, A., and Brijnath, B. (2025). Codesigning a Multilingual Virtual Helper for Dementia Carers in Australia: A Case Study. *Hawaii International Conference on System Sciences*.