

## ABSTRACT

**Introduction:** Health Information Systems (HISs) play a crucial role in enhancing patient care and improving healthcare service quality and efficiency. However, they also carry inherent risks for patients. Human factors such as training and cognitive load have been identified as significant contributors to these risks. Although existing literature has examined the role of cognitive load in the design and use of HIS, its impact on the training process remains underexplored. This study aims to investigate cognitive load in health information system training and explore the utilization of cognitive load management techniques within this context.

**Methodology:** Using the Cognitive Load Theory as a theoretical framework, an interpretivist case control study approach with semi-structured interviews was employed. Ten participants, including trainers and trainees from outpatient departments of two hospitals, were interviewed to gain insights into their perceptions and experiences related to cognitive load in HIS training.

**Results:** The findings of the reflective thematic analysis revealed that cognitive load is recognized as a prominent phenomenon in HIS training by the participants. They expressed a positive perception towards the techniques used to manage cognitive load and provided insights into their rationale for selecting specific techniques.

**Conclusions:** The study highlights the cognitive load in HIS, posing potential risks to patient care. Trainers and trainees exhibited preferences for different cognitive load management techniques, emphasizing the need for tailored interventions. These findings have practical implications for the development of effective HIS training programs, enabling the identification of cognitive load factors and integration of preferred management techniques.

**Keywords:** Health Informatics, Health Information Systems, Cognitive Load Theory, Training