## Two-Way Reminder Systems to Support Activities of Daily Living for Adults with Cognitive Impairments: A Scoping Review

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**Abstract**: Adults with brain injuries and mental illnesses commonly experience cognitive impairments that interfere with their participation in activities of daily living (ADLs). Prior research states that electronic reminder systems can support adults with cognitive impairments; however, previous studies focus primarily on one-way reminder systems. Research on adults with chronic diseases reported that two-way reminder systems yield better health outcomes and disease self-management compared to one-way reminder systems. Literature was identified through systematically searching 7 databases and hand-searching relevant reference lists. Retrieved studies were independently screened and reviewed by at least two members of the research team. Data was extracted on study design, participant characteristics, intervention details, study objectives, outcome measures, and important results. 574 articles were screened and reviewed. Nine articles met all inclusion criteria and were included. The literature focused on three main areas: system feasibility (n=8), stakeholder satisfaction (n=6), and efficacy of the two-way reminder systems (n=6). Participants in eight of the studies had brain injuries, with participants in only one study having a mental illness (i.e., schizophrenia). Two-way reminder systems were used to support participation in a wide range of ADLs. The current literature on two-way reminder systems to support ADLs for adults with cognitive impairments focuses on feasibility, stakeholder satisfaction, and system efficacy. Future research should focus on addressing the barriers to accessing and implementing two-way reminder systems and identifying specific client characteristics that would benefit most from using these systems.

Keywords: brain injury, digital health, occupational therapy, activities of daily living, two-way reminder systems

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