Elderly Care Coordination System

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Abstract: *The steady rise in the global elderly population presents major challenges for traditional healthcare models and family-based caregiving. Chronic illnesses, mobility limitations, and the growing emotional and physical load on informal caregivers often result in fragmented support systems and inconsistent care. In recent years, a wide range of digital tools—especially mobile health (mHealth) applications—have emerged to provide more proactive, personalized, and continuous care for older adults.*

This paper offers an integrative review of current research and technological developments in elderly support systems. It outlines the interconnected issues of population aging, decentralized care, and caregiver stress, then explores existing digital solutions such as smart home systems, remote monitoring tools, and clinical decision support platforms. The Intelligent and Integrated Older Adults Care Model (SMART System) is used as a case study to highlight how structured, research-driven solutions differ from the loosely designed applications available in the general market.

User experiences of both seniors and caregivers are synthesized, revealing challenges such as usability barriers, digital literacy gaps, and privacy concerns. Based on these insights, a consolidated framework of essential features for next-generation elderly care platforms is proposed. The paper concludes by identifying gaps in current practice and emphasizes the need for stronger empirical evidence, interoperability with formal healthcare systems, adaptive personalization, and user-centered co-design to fully leverage technology for sustainable elderly care

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