

# Aging and Disability

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## Active Health Intervention Outcomes in Elderly Diabetes Patients: A Scope Review X. Jin, Y.

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**Purpose** The global demographic shift towards an ageing population is driving a rapid and significant rise in the prevalence of diabetes among older adults. The multifaceted burden of diabetes in older adults necessitates a comprehensive health management system, yet current models are critically limited by inadequate focus on developing patient self-management abilities[1]. Therefore, establishing a scientifically sound, professionally accurate, and comprehensive proactive health management system that encompasses the entire disease cycle for this population is crucial. This study aims to systematically map and synthesize both domestic and international research on proactive health interventions for elderly diabetic patients through a scoping review methodology. The purpose is to clarify types of interventions, core outcome measures, and overall effect trends, thereby providing evidence-based guidance for developing and implementing effective proactive health management models for this population. This abstract thus provides actionable multidimensional intervention protocols for clinical practitioners, demonstrates methodologies for constructing comprehensive health management models for public health researchers, and offers forward-looking guidance for policymaking and industrial development. The integration of these dimensions establishes the study as a knowledge hub serving as a nexus between medicine, sociology, and other disciplines, thereby fully embodying the transdisciplinary nature of gerontechnology. The findings ultimately seek to inform the formulation of integrated management strategies across healthcare, technology, and public health sectors. **Method** This study adheres to the Arksey & O'Malley framework for scoping reviews[2]. Systematic searches were conducted across both Chinese and English databases, including CNKI, WanFang, CQVIP, CBM, PubMed, the Cochrane Library, and Web of Science. The search covered publications from January 2015 to October 2025. Two independent researchers screened and extracted the data. **Results and Discussion** Of the 813 publications identified, 17 studies (five in English and 12 in Chinese) were included in the final analysis. The interventions were categorised into three types: technology empowerment, education empowerment, and behavioural support. Technology empowerment use smartphone-centric gerontechnology ecosystem to integrate specialised applications with commonly used social platforms, delivering multifunctional capabilities such as medication reminders, health data tracking, and remote consultations. The system's design is characterised by its structured, personalised, and user-friendly nature, thereby effectively reducing technological barriers for the elderly, and fully embodies the human-centred philosophy of "age-friendly technology design." These were evaluated against outcomes including physiological indicators, health-related quality of life, and other health metrics. Future management can be facilitated via smartphones, which can engage both patients and their families in proactive health management. This approach integrates prevention with treatment, enables timely intervention, and ultimately helps prevent complications. A preponderance of positive effects was reported across these studies. The findings of this study collectively indicate that adaptable, proactive health strategies are imperative for the optimisation of diabetes care in older adults.

### References

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