

# Design and Research on Age-Friendly Bathroom Renovation in Existing Residential Buildings: Postprint

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## Abstract

With the accelerating increase in China's aging population proportion, the silver economy has emerged, rendering healthcare, elderly care, and social service demands as issues warranting active societal attention. This paper aims to explore pathways for enhancing quality of life and environmental comfort for non-frail elderly individuals within home-based elderly care models, taking the aging-in-place renovation of existing residential bathrooms as the research subject. Through analysis of elderly physiological and psychological health needs and examination of deficiencies in safety, comfort, and applicability according to the 'Design Code for Residential Buildings for the Elderly', this study proposes renovation designs for existing bathrooms, thereby providing a theoretical foundation and reference basis for aging-in-place bathroom design in Chinese home-based elderly care contexts.

## Full Text

### Preamble

**Title:** Design and Research on the Adaptation of Residential Bathrooms for the Elderly in Existing Housing

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### Abstract

As China's population ages at an accelerating rate, the silver economy has emerged, bringing healthcare, elderly care, and social service needs to the forefront of societal concerns. This study explores pathways to enhance quality of

life and environmental comfort for non-frail elderly individuals in home-based care settings, with a specific focus on the adaptation of existing residential bathrooms. By analyzing the physiological and psychological health needs of the elderly and evaluating current designs against the *Code for Design of Residential Buildings for the Elderly*, this paper identifies critical deficiencies in safety, comfort, and usability. The resulting renovation proposals offer a theoretical framework and practical reference for designing elderly-adapted bathrooms in Chinese homes.

**Keywords:** Elderly-adapted bathroom; Design and renovation; Safety; Home-based elderly care

*Note: Figure translations are in progress. See original paper for figures.*

*Source: ChinaXiv — Machine translation. Verify with original.*