

Designing for Dignity: Integrating Global Perspectives and Ethical Care Frameworks in Sustainable Housing for The People with cognitive disabilities

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Abstract

This paper addresses the urgent need to reimagine housing maintenance for people with cognitive disabilities, including individuals living with dementia. It explores how sustainable infrastructure, ethical care, and cultural responsibility can be interwoven to foster dignified, inclusive living environments. The primary aim is to develop an integrated framework that supports built environment professionals in adopting proactive and culturally responsive maintenance strategies.

The study pursues three key objectives: (1) to evaluate current practices in residential care maintenance, (2) to identify ethical and cultural frameworks—particularly those informed by global perspectives and Islamic principles—that uphold dignity and protection, and (3) to propose actionable pathways for aligning traditional values with modern predictive maintenance technologies. The research is guided by two central questions: How can ethical and cultural principles be operationalised in sustainable housing maintenance? What are the practical impacts of integrating these frameworks on the well-being of people with cognitive disabilities residents?

A mixed-methods methodology is employed, combining stakeholder interviews, predictive maintenance modelling, and policy analysis within the UK context, while drawing from broader global discourses. The paper presents a critical review of care ethics in housing, synthesises stakeholder insights, and introduces a sustainability framework evaluated through case-based applications.

Findings reveal that integrating ethical care concepts—such as the Islamic view of shelter as a divine trust (amanah)—with predictive maintenance strategies enhances resident dignity, operational effectiveness, and long-term sustainability. The study concludes that inclusive, ethically grounded maintenance models are both necessary and achievable, advocating for cross-disciplinary collaboration and the institutionalisation of culturally attuned practices to advance equitable and sustainable care infrastructures.

Keywords

Housing Maintenance, People with cognitive disabilities, Ethical Care Frameworks, Culturally Informed Built Environment Education.