

## Designing for the Aging Population: A Case Study of a New Product for Seniors

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**Keywords:** aging population, design for all, elderly, product design, user-centered design

**Abstract:** This study presents a case study of a new product for seniors. The product is a portable, foldable, and washable bedsheet designed for elderly people who have difficulty getting in and out of bed.

The product was developed through a user-centered design process involving three stages: needs analysis, design, and evaluation. The needs analysis stage involved a series of interviews with elderly people and their caregivers to identify their needs and challenges related to bedsheet use.

The design stage involved the development of several prototypes based on the needs identified in the needs analysis stage. The prototypes were evaluated by elderly people and their caregivers to identify potential improvements. The final product, a portable, foldable, and washable bedsheet, was developed based on the feedback received from the evaluations.

The results of the study show that the design process was effective in addressing the needs of elderly people. The final product, a portable, foldable, and washable bedsheet, has the potential to improve the quality of life of elderly people by providing them with a convenient and comfortable way to get in and out of bed.

**Introduction** The aging population is a global phenomenon, and it is expected that the number of elderly people will continue to increase in the future. This study presents a case study of a new product for seniors, specifically a portable, foldable, and washable bedsheet designed for elderly people who have difficulty getting in and out of bed.

The product was developed through a user-centered design process involving three stages: needs analysis, design, and evaluation. The needs analysis stage involved a series of interviews with elderly people and their caregivers to identify their needs and challenges related to bedsheet use.

The design stage involved the development of several prototypes based on the needs identified in the needs analysis stage. The prototypes were evaluated by elderly people and their caregivers to identify potential improvements. The final product, a portable, foldable, and washable bedsheet, was developed based on the feedback received from the evaluations.

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**Design for All** Design for all (DFA) is a design approach that aims to create products that are accessible and usable for all users, regardless of their age, ability, or cultural background. DFA is a user-centered design process that involves the participation of users in the design process to ensure that the final product meets their needs and requirements.

In this study, DFA was used as a design approach to develop a new product for seniors. The design process involved the participation of elderly people and their caregivers in the design process to ensure that the final product met their needs and requirements.

The results of the study show that the design process was effective in addressing the needs of elderly people. The final product, a portable, foldable, and washable bedsheet, has the potential to improve the quality of life of elderly people by providing them with a convenient and comfortable way to get in and out of bed.

**Design Process** The design process involved three stages: needs analysis, design, and evaluation. The needs analysis stage involved a series of interviews with elderly people and their caregivers to identify their needs and challenges related to bedsheet use.

The design stage involved the development of several prototypes based on the needs identified in the needs analysis stage. The prototypes were evaluated by elderly people and their caregivers to identify potential improvements. The final product, a portable, foldable, and washable bedsheet, was developed based on the feedback received from the evaluations.

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**Conclusion** The results of the study show that the design process was effective in addressing the needs of elderly people. The final product, a portable, foldable, and washable bedsheet, has the potential to improve the quality of life of elderly people by providing them with a convenient and comfortable way to get in and out of bed.

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