Pharmaceutical packaging design for elderly people: design research as a link for innovation towards better life experience

Lorenzini, Giana; Hellström, Daniel

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As we age, we take on many characteristics of various disabilities - our strength, reach and mobility diminish, our visual acuity lessens and we become more sensitive to glare; our hearing declines. In 2060, 30% or 155 million of the EU people will be 65 years or older. In 2030, 23% or 125 million people in the EU will be 65 years or older. Currently, 17% of the EU population, or 85 million people, are 65 years or older. Universal Design is also socially sustainable, supporting the basic human rights for equity, independence and diversity.

**DESIGN CHALLENGES**

Pharmaceutical packaging design has proved to be interdisciplinary, but with lacks of understanding among areas. More design research is needed based on:

**INSPIRATION**

- **Mechanical use**: Openability: the loss of strength to open child-resistant containers.
- **Readability**: the difficulty of following the small letters and texts on instructions.
- **Language**: non-clear terms mixed with similar names.
- **Memory**: the difficulty to remember names and doses.
- **Safe and compliant use**: Storage: inappropriate and unsafe use of packaging at home. Compliance: loss of compliance with a treatment preceded by difficult packaging and unclear instructions.

**INSIGHTS**: How do designers get insights from the elderly? Are these insights considered by regulation and policies? How do nurses manage the packaging? New perspectives could be developed through design research.

**OBSERVATION**: The design research is focused on observing the problems faced by users, but not on proposing solutions or design standards for the packaging of medication. Why?

**EMPATHY**: Design research recognizes that packages for medicines should be user-friendly, however, pharmaceutical research lacks of design inspiration. How can the design explore new solutions for the elderly?


**PHARMACEUTICAL PACKAGING DESIGN FOR ELDERLY PEOPLE**

**1 INSPIRATION**

In 2060, 30% or 155 million of the EU people will be 65 years or older.

**2 RESEARCH QUESTIONS**

How is the design applied to pharmaceutical packaging for elderly people? And what is the value of using design research to assess the needs of the elderly?

**3 RESEARCH PLATFORM ON DESIGN**

**1 PURPOSE**

To explore the critical design aspects of the use of pharmaceutical packaging by the elderly.

**2 CONCEPTUAL BACKGROUND**

This research was literature-based, fundamented by the combination of concepts from:

- Design thinking: to understand the lacks in the design research about pharmaceutical packaging for the elderly users
- Inclusive design: to identify the problems of the elderly when dealing with pharmaceutical packaging

**3 RESEARCH STEPS**

**Step 1:** The understanding of pharmaceutical packaging design as a field of research with different disciplines

**Step 2:**

- The design research is focused on observing the problems faced by users, but not on proposing solutions or design standards for the packaging of medication. Why?
- Design research recognizes that packages for medicines should be user-friendly, however, pharmaceutical research lacks of design inspiration. How can the design explore new solutions for the elderly?

**4 DESIGN CHALLENGES**

The difficulties for senior users were grouped as three main challenges:

1. **Mechanical use**
   - Openability: the loss of strength to open child-resistant containers
   - Readability: the difficulty of following the small letters and texts on instructions

2. **Cognitive use**
   - Language: non-clear terms mixed with similar names
   - Memory: the difficulty to remember names and doses

3. **Safe and compliant use**
   - Storage: inappropriate and unsafe use of packaging at home
   - Compliance: loss of compliance with a treatment preceded by difficult packaging and unclear instructions

**5 COMMENTS AND FURTHER STEPS**

**NEW SOLUTIONS BASED ON DESIGN METHODS ARE NECESSARY**

- We aim to establish new links through design research, debating with the multiple actors and stakeholders how to improve pharmaceutical packaging
- For the challenges, it is imperative to have user-friendly packaging, accessible for the elderly, but child-resistant

**6 AUTHORS**

GIANA LORENZINI, DANIEL HELLSTRÖM

**CONTACT:**

- giana.lorenzini@plog.lth.se
- daniel.hellstrom@plog.lth.se

**INFO:** www.plog.lth.se