

Older Adults and Product Injuries : From Data to Solutions...

Background and Hypotheses – The Consumer Perspective

Julia Beamish – Virginia Tech

James Watzke – British Columbia Institute of
Technology

Presentation for ICPHSO's 13th Annual Meeting,
Bethesda, May 9, 2006

Awareness of Danger

- ❑ Older adults are concerned about safety in their homes.
 - ❑ Concern about safety is related to past accident history.
 - ❑ Rankings of dangerous products is not necessarily consistent with the products that actually cause injury.
-

Hypothesis

- ❑ Older adults are relatively unaware of the actual number and type of injuries experienced by seniors that are associated with various household products.
-

Person-Environment Interactions

- Products are used by people with varying abilities and understanding within the context of their environment.



Hypothesis

- ❑ Older adults are rarely aware of the interactions between themselves, products, tasks, and their environment that can lead to injury.
-

Views of Being Old

- ❑ Traditional (and negative) image of an older person:
 - Lonely
 - Disabled
 - Slow
 - Forgetful
 - Helpless



Hypothesis

- Older adults tend to blame themselves for an injury rather than the product associated with the injury.
-

Actual Physical Changes



- Sensory changes
 - Mobility and dexterity
 - Cognitive
-

Hypothesis

- ❑ Older adults' physical and cognitive conditions lead to product injuries.
-

Universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

*–Ron Mace
Center for Universal Design
NC State University*

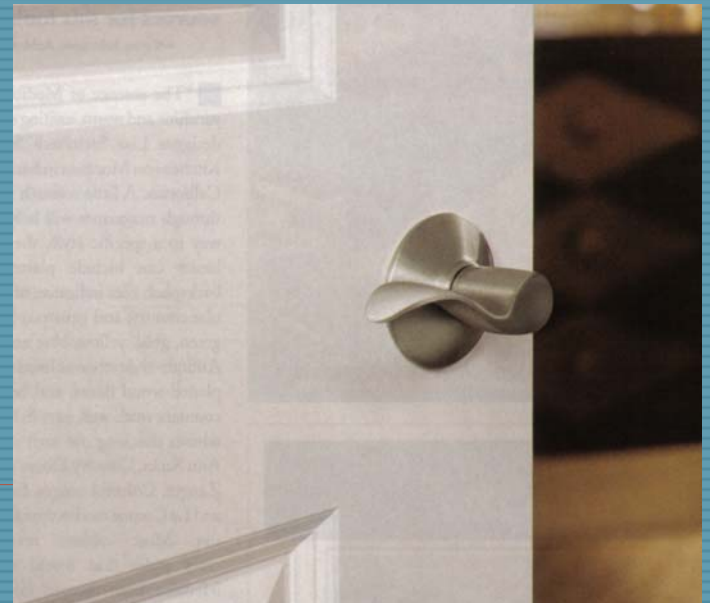


Seven Principles of Universal Design

- ❑ Equitable Use
- ❑ Flexibility in Use
- ❑ Simple and Intuitive
- ❑ Perceptible Information
- ❑ Tolerance for Error
- ❑ Low Physical Effort
- ❑ Size and Space for Approach and Use

Equitable Use

- ❑ Design is useful and marketable to people with diverse abilities.
- ❑ Provide the same means of use for all users: identical whenever possible; equivalent when not.



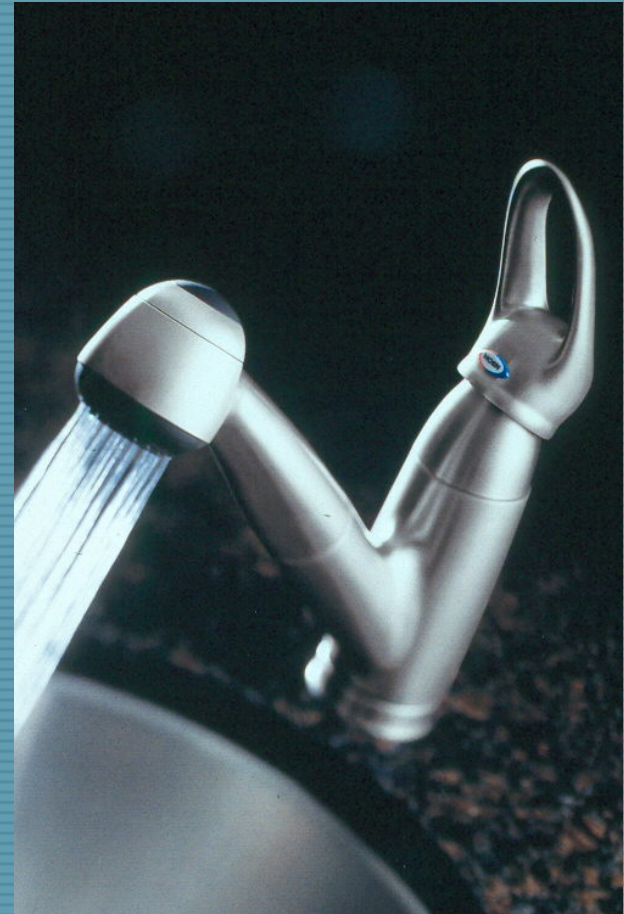
Flexible Use



- Design accommodates a wide range of individual preferences.
-

Simple and Intuitive

- Design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.



Perceptible Information



- Design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.
-

Tolerance for Error

- ❑ Design minimizes hazards and the adverse consequences of accidental or unintended actions.



Low Physical Effort

- Design can be used efficiently and comfortably and with a minimum of fatigue
-

Size and Space for Approach and Use

- Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.



Hypothesis

- Universal Design is part of the solution to decrease the rate of injury due to product injury.
-

Manufacturing Products

- ❑ Human Factors engineering considers the needs of people who use a product.
- ❑ Products that have been designed for users needs have been successful.



Hypothesis

- Educating product manufacturers about older adults and how they use products would decrease injuries from products.
-

Consumer Education

- ❑ Safety Checklists are available to help remove hazards from older people's homes.
- ❑ A majority of older people do not have:
 - grab bars in their tub or shower.
 - nightlights near stairs.
- ❑ They still have loose throw rugs somewhere in their home.



Hypothesis

- Most efforts to educate older adults about preventing injuries are ineffective.
-

Discussion Period

- ❑ What are your thoughts on how best to reduce product injuries with older adults?
 - ❑ Does the kind of data presented in this session have value?
 - ❑ Is there a role for standards, regulations, legislation on this matter?
 - ❑ Is “education” the solution? If so, how?
-

Thanks for your participation in our session!

Have a great rest of the conference...

...See you next year in Orlando (Feb 26-March 1, 2007)
