The Home Usability Network

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Researchers

Craig Ravesloot, Lillie Greiman, Andrew Myers, RTC:Rural, University of Montana

Bryce Ward, Bureau of Business and Economic Research, University of Montana

Discussants

Margo Waters, disABILITY LINK, Atlanta, GA

Phil Rumrill, Center for Disability Studies, Kent State University

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RTC: Rural

- Bob Liston

- Mary Olson

CIL partners

- Amber O'Haver- accessABILITY Indiana, Indianapolis

- Brian Peters- Independence First, Milwaukee

- Todd Vaarwerk- Western New York Independent Living, Buffalo

- Janet Wilkinson- REACH, Dallas

- Heather Dorner- disABILITY LINK, Atlanta

Introduction

- Home is the springboard for community participation

- Many people with disabilities live in homes that do not suit their needs.

- Living in a home that does not meet one's needs may negatively impact community participation.

Home Usability

- Finding a usable home is a major problem for many PWD.

- Accessibility is about codes and standards.

- Usable homes are homes that suit an individual's needs.

- Three pathways to living in unusable homes:
  1. Becoming impaired and unable to relocate
  2. Compromise when usable is unavailable/unaffordable
  3. Living in "accessible" that is not usable

American Housing Survey (HUD)

- Nearly 60% of US households with an individual that uses a wheeled mobility device are in homes that that have steps at the entrance

- Of those living in multi-story homes, nearly 20% do not have an entry level bathroom and over 30% must climb stairs to reach a bedroom.

- Of those living above the ground floor in an apartment, over 70% do not have a working elevator.

Greiman & Ravesloot (2015). Housing characteristics of households with wheeled mobility device users from the American Housing Survey: do people live in homes that facilitate community participation? *Community Development, 47 (1),* 63-74.

American Time Use Survey (BLS)

- Compared to 88% of people without mobility impairment (MI) only 55% percent of people with MI left home on their diary day.

- They spent less time in education, social and recreational, caregiving and community activities.

- They spent less time working and more time resting.

- They spent 10% more time in self-care despite the fact that they were less likely to do any grooming (65% vs 80%).

- They were much more likely to engage in social and recreational activity without grooming (29% vs 17%).

Health and Home Survey (n=170)

- Overall, people with MI report lower satisfaction, safety and ease across areas of the home

- Compared to people without MI, people with MI rated their exertion bathing 3 times higher than those without MI ($34\%_{max}$ vs 11%).

- A one standard unit increase in bathing exertion was associated with a 61% decrease in the number of social and recreational activities.

Why does Home Usability matter?

- Living in unusable homes may require more effort for ADLs like bathing.

- Energy spent on overcoming these problems in the home may reduce time and energy for other activities.

- Making homes more usable may translate into more community participation.

Simple Economic Story

- People have a certain capacity for effort (i.e., effort is scarce).

- Every activity has an effort price. Effort price is determined by personal characteristics and environmental characteristics (home usability).

- People with mobility impairments may have less capacity for effort, may face higher effort prices for activities, or both.

- As such, they spend more time resting and less time engaged in activities – particularly activities with higher effort prices.

- To increase activity/participation among people with impairments, we need to increase capacity or lower prices of activities. This may be done through increasing personal capacity or by modifying the environment.

- We modified the environment by helping people make their homes more usable.

Home Usability Intervention

- Worked with a team of 5 CIL advocates from across the country

- Collaborated on survey design, intervention procedures, website development, participant recruitment

  - *Home Usability Plan*

  - *Home Usability Network*

- 3 CILs implemented the intervention

  - *accessABILITY in Indianapolis, IN*

  - *disABILITY LINK in Tucker, GA*

  - *Resources for Independence Central Valley in Fresno, CA*

Intervention Acknowledgements

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- Margo Waters, Heather Dorner, Katelyn Johnson

accessABILITY (IN)

- Morgan Daly, Angie Hass

## Resources for Independence Central Valley (CA)

- Joseph Cody, Barney Morris, Lillian Yang

Intervention Procedures

- Intervention participants recruited from Health and Home Survey sample and local CILs

- Worked with local CIL staff to identify home usability problems

- Completed a Home Usability Plan (HUP) and worked with a Home Usability Network (HUN) to address the problem

  - HUP: based on an ILP, used to id home usability issues and personal resources

  - HUN: network of organizations and personal resources that can work to solve home usability issues

Pilot Results

- 19 consumers completed or currently active in program
  - 29 recruited

- Bathroom issues most common
  - 11 of 19 (58%) of identified issues
    - *Grab bars*
    - *Toilet supports*
    - *Shower chairs/supports*
    - *Magnifying mirror*

- Other issues addressed
  - Ramps and sidewalks
  - Improved lighting
  - Cleaning

- Evaluation to be completed this Fall
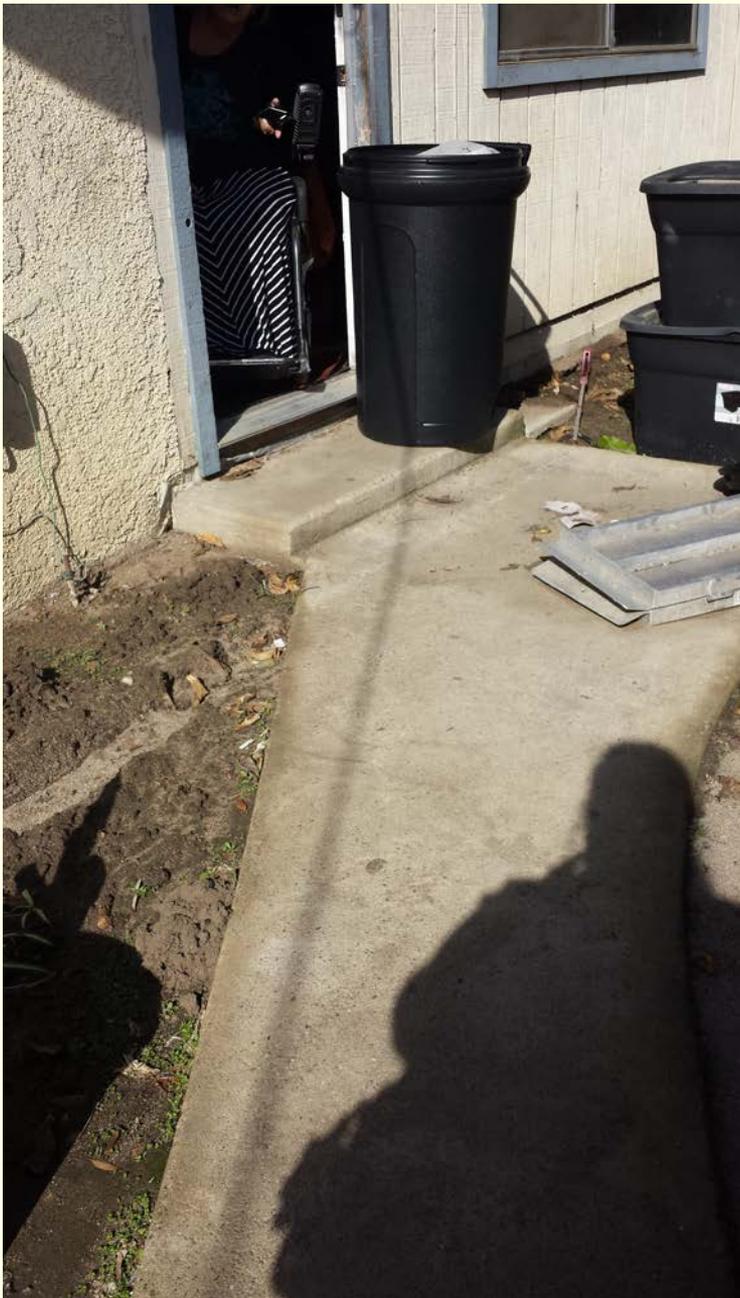
Discussion/Implications

- Many people with mobility impairments live in homes that are not accessible or usable
- Bathrooms are particularly problematic
  - High levels of exertion
  - Safety concerns
- People with impairments spend time differently
  - Less social and recreational activities
  - Less grooming
  - More television
- Implications for their participation in the community
- The bathroom could be a critical area for intervention

Potential Impacts on Policy and Practice

- Focus on housing as it impacts participation

- Bathroom usability interventions to improve bathroom safety (reduce risk of hospitalization/institutionalization), exertion and satisfaction.

- Tools for service providers to connect with housing resources and develop housing program capacity.

Contact Information:

Lillie Greiman

RTC: Rural

The University of Montana

Lillie.Greiman@umontana.edu

406.243.6102

http://rtc.ruralinstitute.umt.edu/

Additional Research Results:

http://pip.ri.umt.edu/

http://pip.ri.umt.edu/housing-usability-research/