SAFE HOUSES: Meanings and Home Modification

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Today’s Tasks

- Describe our current research program.
- Explore some results of this research
  - Some common socio-cultural barriers to safety improvements
  - Differing perspectives on risk and need for change
- Some suggestions for practice
Risks of Falls

- >1/3 people aged 65+ fall each year
- Half of falls are recurrent
- 1 in 10 falls results in serious injury
- 10% of visits to ED and 6% of urgent hospitalizations among elderly due to falls
- 3% of falls result in fractures
- 87% of fractures in elderly due to falls
INDEPENDENT of other health conditions, falls are related to:

- Restricted mobility
- Functional Decline in ADLs and IADLS
  - especially decreases in strength, balance, gait, vision
- Increased risk of placement

(Tinetti 2003 NEJM 348 (1): 42-49)
Falls are caused by a **complex interaction** between within-person factors (**individuals**) and environmental factors (**where they live**).
Health Conditions:

- Arthritis
- Depressive symptoms
- Orthostasis
- Impairment in: cognition, balance, gait, or muscle strength
- Recent hospitalization
- Episodes of acute illness or exacerbations of chronic illness
Medications

- Number of medications (4 or more)
- Type of medications (at least these):
  - Serotonin-reuptake inhibitors
  - Tricyclic antidepressants
  - Neuroleptic agents
  - Benzodiazapines
  - Anticonvulsants
  - Class 1A anti-arrhythmic agents
Environmental Factors

- To date, research has focused overwhelmingly on individual or within-person factors

- We focused on environmental factors in the home
Environmental or Exogenous Factors

- Habits of the home:
  - Throw rugs
  - Bathrooms
  - Stair rails (or their lack)
- Patterns of housing construction
- Deteriorated housing
- Temporal issues
The Initial Research Questions:

- How do people identify risk and safety issues in their homes?
- What prompts people to make safety modifications to their home?
- What prevents people from making safety modifications to their home?
CHIPPS Program/ SF DPH

- Safety education program for SF seniors
- Home assessment program
- Home modifications
Intervention Aims to Overcome Barriers by:

- Applying knowledge to personal situation via personalized home assessment
- Remove financial barriers via provision of free materials and installation
Study Design

“Lightly” superimpose research activities on the CHIPPS education intervention:

- Observation of intervention activities
- Interviews with participants at time of home assessment and six months later.

In depth structured interviews focused on history of home, values, decision-making process
Demographics

- **N:** 159 subjects, 123 homes
- **Gender:** 25% Male
- **Age:** Mean = 75 years (sd=7, range 61-92)
- **Martial Status:** 32% partnered
- **Annual Income:** <\$20,000 = 37%  
  \>$30,000 = 37%
- **Ethnicity:** African-American = 30%  
  Chinese-American = 20%
Demographics cont.

- Renters = 33%
- Monthly Rent: Mean = $532
  (sd=288, Range $105 to $1050)
- Single Family Dwelling = 56%
- # Health Problems: Mean = 2.5
  (sd =1.5, Range 0-6)
- ADL Impairments = 97% have none
Falls Risk Factors in this Sample:

- 75% are age 70+
- 19% have musculoskeletal problems
- 48% have arthritis
- 22% have vision problems
- 15% have hearing problems
- 36% use 4+ medications
- 45% have 3+ health problems
- Everybody has throw rugs, no grab bars, dangling cords, etc.
Active, Healthy Seniors
(the aging consumer)
Our Sample
(the aging citizen)
Home Modifications Performed

- Average cost per home: < $150
- Average time to complete: <2 hours

- Removal of slip rugs/dangling cords <80%
- Installation of grab bars - 55%
- Installation of night lights – 54%
- Installation smoke detectors – 33%
- Installation of surge protectors – 30 %
- Minor repairs (eg, stair rails) < 10%
Major Research Finding: Risk is not a material fact.

- Risk is a social fact, with symbolic meanings and implications

- The importance of those meanings is open to debate between older people, their families, and health care providers
Perspectival Conflict

- Differing points of view on what is ‘safe’ (Person, Family and HCP).
- Each assessment of ‘safe’ or ‘unsafe’ leads to certain activities, ideas, and problem solving strategies.
- Inter-person agreement is not always high
‘50 Ways to…Disagree’

- Locating risk indoors or out
- Accommodation vs. modification
- Risk vs. Aesthetics
- ‘When I get old enough’
- Partial agreement, but…..
- Lack of shared history
Risks Indoors or Out?

- Fear of falling in the street
- Fear of assault

- Countered by statistics, but routinely disbelieved/ignored.
Accommodation vs. Modification

- Use various strategies to create a sense of safety
- Emphasize convenience over safety
- Restrict use of space.
Risk vs. Aesthetics

- Education program emphasized risk

- Person attended to both the risk and the aesthetics of the evaluator’s recommendation – and so tended to minimize the risk
‘When I get old enough….’

► People wanted to postpone as long as possible the stigma from modifying their home. They’ll wait until they get ‘really old’ – frail, decrepit, “on the way out.”

► Visibility of modification important
  - grab bars in private space
  - throw rugs in public areas
‘Yes, but……’

- Accept some recommendations, but resist others (eg – advice to remove throw rugs)
- Smoke alarms without batteries
- ‘I know I should move those rugs, but my carpet will get dirty.’
- ‘I’m very interested in this home assessment thing, but I have to clean house first.’
Experiences:

Daily Life:
- I’ve lived in this house for 47 years and I’ve never yet tripped over that extension cord
- I’ve always had that lamp in that corner of the room

Lived memory:
- “My husband built that just after we first moved in here”
- “This is my son’s room” – even though he left some 40 years ago
Lived Memories of Home

Daily experience:
- I’ve lived in this house for 47 years and I’ve never yet tripped over that extension cord
- I’ve always had that lamp in that corner of the room

Lived memory:
- That was built by my husband after we first moved in here
Intervention Blind Spots

► Sometimes neither the health educator nor individual older person recognized a safety hazard
► Assumptions about individuals making decisions for themselves don’t fit some groups (e.g., Chinese families)
► Perceived impossibilities for building code changes
► Need for data on property values and the impact of specific home modifications
Just how effective are home modifications?

- General purpose education probably not sufficient but a good start
- Trained assessment and hazard removal after hospitalization reduced falls by 20% post hospitalization
- Trained assessment & hazard removal in general population reduced falls by 40%, in original CHIPPS study
Effective Fall Prevention

- Exercise programs with balance and strength training, for **ALL** elderly, frail or not, especially if aged 75+
- Gait training with balance & strength training (for those at high risk)
- Gradual discontinuation of psychotropic drugs (especially for people at high risk)
- Assessment and modification of hazards in the home especially useful after hospital discharge but also good for **ALL** elderly (Tinetti 2003)
Practical Considerations:

- What has she already done to enhance comfort/safety at home?
- What symbolic meanings does home have for her?
- How well does she and her daughter agree about what ‘safe’ is?
- Who is going to be making decisions?
- Is she afraid of falling or of losing her independence?
Intervention Implications - part 2

- Involve families.
- Address aesthetic issues directly.
- Expand discussion of “risk” to “ease/comfort”

-- for everybody who visits the home not just for the older person who lives there
Healthy Housing Policy

- Demand that housing codes and policies change to create
  - safer environments for people of all ages (e.g., grab bars as standard items everywhere – hotels, houses)
  - reflect universal design principles for easier access
  - support home modifications to keep people independent as long as possible
Remember:

- We don’t all see risks the same way.

- Customary habits of decades are difficult to change – especially if the meaning of the change is “decline.”

- Easier to make changes if the meaning is “convenience/ comfort/ pleasure.”