Honeywell’s Independent LifeStyle Assistant™ (I.L.S.A.)

Florida Participant Reactions

Michael D. Justiss, MOT, OTR/L
University of Florida
Rehabilitation Science Doctoral Program
University of Florida
mjustiss@hp.ufl.edu
Background

- Partnership with Industry
  - To study the use of home monitoring technology to promote independence among the elderly
- The RERC-Tech-Aging beta tested ILSA in the homes of elders in Florida.
Florida Project Sample

Goal:

- Select a convenience sample of 10 elders from the RERC-Tech-Aging Consumer Assessment participant pool
  - 310 frail elders living in North Central Florida
  - Have at least one ADL deficit
Florida Project Sample

- ILSA inclusion criteria
  - ñ Living alone
  - ñ MMSE > 24
  - ñ Access to high speed internet service
  - ñ Agreement of participation from a family member/caregiver
Florida Project Sample

- Of 10 consenting elders, 4 withdrew prior to the installation process

- Two withdrew during the installation process
Florida Project Sample

- Difficulty with recruitment
  - Procedure sounded too invasive
  - Difficulty understanding the technology
  - No willing family/caregiver involvement
    - Participant often felt it would be an imposition
  - Fear of impending cost
  - Fear that someone is watching
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<table>
<thead>
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<tbody>
<tr>
<td><strong>N</strong>=4</td>
<td></td>
</tr>
<tr>
<td><strong>Mean Age</strong></td>
<td></td>
</tr>
<tr>
<td>3 Female</td>
<td>70 (56-76)</td>
</tr>
<tr>
<td>1 Male</td>
<td></td>
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<tr>
<td><strong>Mean MMSE</strong></td>
<td>28 (27-29)</td>
</tr>
<tr>
<td><strong>Mean # Medications</strong></td>
<td>5 (1-8)</td>
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Florida Project Sample

- Types of Impairments
  - Diabetes
  - Arthritis
  - Asthma
  - Depression
  - Thyroid Disorder
  - Thallasemia
  - Hypertension
Caregiver distribution

Participant 1: Son

Participant 2: Two sons (twins)

Participant 3: Daughter

Participant 4: Friend/neighbor
Qualitative Review

- A semi-structured focus group was conducted to assess participant reactions to the ILSA system
Reaction Categories

- Initial Reactions
- Perceived need
- Changed behaviors
- Communication with family/caregiver
  - Type of communication
Reaction Categories

- Participant monitoring
- System control
- Device Recommendations
- Caregiver reactions
Initial Reactions

- Excitement, it sounded important for people, and it has to get started somewhere.
- All participants expressed little concern about the installation process.
Perceived need

- All said yes
  - "I have a hard time remembering to take my medication"
  - "I live alone; it would be nice to know someone is keeping an eye on me (in a sense)"
  - "It would be good for my family to have contact or receive information"
  - "I recently got out of the hospital, it would be good to have someone checking on me"
Changed behaviors

- I pay more attention to my medication.
- I don’t like being confined to a routine.
- I had to remember to turn it on and off.
Communication with family/caregiver

"It increased communication between me and my family; they called all the time when they would get messages that I haven’t moved for 5 hours. I went out and forgot to turn it off."
Participant monitoring

- All participants felt comfortable with the type of monitoring used

- A uniquely male perspective:
  - Ñ i You need cameras to truly see whatís going on with the person

Ö and the ladiesí responseÖ
NO
Who’s Monitoring?

- The responses changed slightly when asked how they would respond to cameras when access was restricted to only family and health professionals

- Ö alright, but not in the bathroom
System Controls

- All participants reported the touch screen controls were easy to use and understand.
- All participants understood how the system functioned.
  - I like to watch the light on the sensor flash as I walk by.
  - I like to take my medication and run to the web pad to see it register the time.
Device Recommendations

- The web pad is too heavy
  - Two participants would use the pad to access e-mail or play solitaire
- I wish ILSA would sync with my computer
- More color choices would be nice
- Proximity sensor
Caregiver reactions

- One family member described what he termed a “crying wolf” phenomenon.

  ñ At first, I was very concerned when I was constantly receiving alerts for no movement over 5 hours. The more and more alerts I received, the less and less I believed them.
Caregiver reactions

- I was fine until the phone calls started. I was so annoyed, I almost quit the study.

- All family/caregivers felt ILSA increased communication, but not always in a positive way.
Summary

Despite a high incidence of technical difficulty, false alerts, and family/caregiver frustration, all elders in the group feel remote home monitoring is important.
Would you do it again?

- All 4 responded: Yes
  - 3 definitely
  - 1 only if the bugs were worked out
- Family/caregivers
  - 3 hesitantly would agree if it was improved
  - 1 No
Future Research Considerations

- It was the elders with the most technical/computer knowledge who remained in the study.
- All those who dropped out did not own a computer or rarely to never used one.
- Needs and barriers to technology for the elderly.
Future Research Considerations

- Family/caregiver participation is very important
  - Three withdrawals were attributed to family/caregiver conflict
- Underlying family/caregiver frustration threatened continued participation for the remaining four
I think as a pilot project it has worked very well; kinks will always have to be worked out and I think it has great potential. I think the idea is great and its time has come.
Special Thanks

The Fab 4
Acknowledgement

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Michael D. Justiss, MOT, OTR/L
University of Florida
P.O. Box 100164
Gainesville, FL 32610-1064
(352) 273-6043
mjustiss@hp.ufl.edu