

Break Out Session 1:

Case Study Toolkit

Patient Profile: Basic information about the individual (age, gender, living situation, etc.) and their specific diagnosis that you will be building out, their living situation etc. If they have dementia or cognitive loss, what stage (MCI, Mild, Moderate, Severe). Be very specific about your patient, think about patients you have had before when working. What setting are you working with your patient in?

Medical History: As a group, build out your medical history of your patient using information from your previous experiences as a clinician. Be creative and think of co-morbidities.

Brainstorm a list of problems your patient is experiencing that potentially could be solved with technology:

Choose one or 2 from the Functions of In-Home Monitoring Technologies that research has shown to be effective in patient monitoring that you will build your case study on:

1. Monitoring Daily Activities
2. Monitoring Abnormal Behaviors
3. Monitoring Cognitive Impairment:
4. Monitoring Falls
5. Indoor Person Positioning
6. Monitoring Sleep Quality

Decide which of the 4 types of technology you will use for your case study:

1. Sensors
2. Smart Technology
3. Wearable Technology
4. Remote monitoring

Breakout Session 2:

Use the “Smart Technology Suitability Checklist” to Assess your “Build Your Own Case Study” patient for the use of Smart Technology.

Smart Technology Suitability Checklist for Therapists

This checklist is designed for therapists to quickly assess the suitability of integrating smart technology for invisible monitoring and caregiving at home for elderly patients.

Patient Information

- Name:
 - Age:
 - Gender:
 - Primary Health Conditions:
 - Cognitive Status:
 - Living Situation: (e.g., alone, with family, in assisted living)
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Current Health and Daily Living Assessment

Mobility:

- Uses mobility aids (e.g., cane, walker, wheelchair)
- Experiences difficulty moving around home (Always, Often, Sometimes, Rarely, Never)

Activities of Daily Living (ADLs):

- Can independently perform ADLs (bathing, dressing, eating)
- Requires assistance with ADLs (Always, Often, Sometimes, Rarely, Never)

Instrumental Activities of Daily Living (IADLs):

- Manages medications, meals, finances independently
- Uses reminder systems or needs help with IADLs

Safety Concerns:

- Experienced falls in the past year
 - Feels safe moving around home at night
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Technology Usage and Comfort

Current Technology Use:

- Uses technology (e.g., smartphone, computer, smart devices)
- Comfortable using technology (Rate from 1 to 5)

Internet and Connectivity:

- Reliable internet connection at home
- Areas in home with poor internet connectivity

Smart Technology Experience:

- Has used smart home technologies before
 - Describe experience and satisfaction level
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Potential Benefits and Concerns

Interest in Smart Technology:

- Interested in using smart technology for daily living and health management
- Specific benefits hoped to gain

Privacy and Security:

- Concerns about privacy and data security with smart devices
- Importance of control over data access (Very Important, Important, Neutral, Not Important)

Physical and Cognitive Limitations:

- Physical or cognitive limitations affecting use of smart technology
- Specific features needed to overcome limitations

Support System:

- Family members or caregivers available to assist with technology
- Frequency of support (Always, Often, Sometimes, Rarely, Never)

Environmental Assessment

Home Layout:

- Number of floors, accessibility features
- Specific areas with movement challenges

Smart Device Placement:

- Suitable locations for sensors and smart devices
 - Willingness to make home modifications for devices
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Evaluation of Suitability

- Compatibility with existing devices and internet connectivity
 - Patient's comfort and familiarity with technology (Rate from 1 to 5)
 - Potential benefits for improving safety, independence, and health management (High, Medium, Low)
 - Privacy and security preferences (High, Medium, Low)
 - Support system availability for technology setup and maintenance (High, Medium, Low)
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Recommended Technologies by Sphere:

Monitoring Daily Activities:

- CarePredict
- Reminder Rosie
- WellSky
- Generation Connect
- LewyCompass

Monitoring Abnormal Behaviors:

- EllieGrid
- Cognifit
- Generation Connect

Monitoring Cognitive Impairment:

- Amazon Echo
- Reminder Apps
- WellSky
- BrioCare

Monitoring Falls:

- Wyze Cam
- Vayyar Walabot Home
- Lively Mobile Plus

Indoor Person Positioning:

- Tile
- Future Shape
- Wayfindr
- Scan Analytics

Monitoring Sleep Quality:

- Beddit
- Eight Sleep
- Oura Ring

Smart Home Devices:

- TechLeft
 - CareLink 360
 - Smart Caregiver Solutions
 - Electronic Caregiver
 - Caregiver Smart Solutions
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Implementation Plan:

- Conduct initial training sessions for the patient and caregivers
 - Customize device settings according to patient needs and routines
 - Schedule regular monitoring and feedback sessions
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Monitoring and Evaluation Plan:

- Set up regular check-ins with healthcare providers to review data
 - Adjust care plan based on smart device insights
 - Ensure ongoing support and troubleshooting for technical issues
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Additional Resources:

- MapHabit
- Sami Alert
- Nobi
- Insight Timer
- Medisafe
- MyMeds App
- CareZone

Home for Life

Addio

Redapple

Trelawear

WellSky

Breakout Session 3

Discuss as a group the possible ethical and practical drawbacks of the use of technology with your particular patient in their situation.

Brainstorm potential solutions to the problems you have identified.

Breakout Session 4

Discuss and brainstorm ideas how you could communicate your solutions to your patient and/or their caregiver.

Breakout Session 5

Presentation of case studies to the group.