Enhancing Quality of Life Through Responsible Care

Panel Members:
Susan Fry, RN, M.Ed
Sara Mayer, RN, BSN
Stephanie Klevorn, MSW
Enhancing Quality of Life Through Responsible Care

This session presents:

- Findings of a clinical outcome study
- Demonstrated results of this approach
- Education to modify habits and behaviors

This session is not a step-by-step manual on B&B programs

Sara Mayer and Stephanie Klevorn are paid employees of HARTMANN USA, Inc.
<table>
<thead>
<tr>
<th>Agenda</th>
</tr>
</thead>
</table>
| 1. Introduction to Presbyterian Manors of Mid-America  
 Susan Fry |
| 2. Introduction to New Protocol  
Stephanie Klevorn |
| 2. The Science of Changing Habits  
Sara Mayer |
| 3. Methodology / Statistical Analysis  
Susan Fry |
| 4. Summary of Outcome Study Findings  
Sara Mayer |
| 5. Partnership Approach to Change  
Stephanie Klevorn |
| 6. Testimonial  
Susan Fry |
Presbyterian Manors of Mid-America

Serving 18 communities in Kansas and Missouri

1 Aberdeen Heights, Kirkwood
2 Aberdeen Village, Olathe
3 Arkansas City Presbyterian Manor
4 Clay Center Presbyterian Manor
5 Emporia Presbyterian Manor
6 Farmington Presbyterian Manor
7 Fort Scott Presbyterian Manor
8 Fulton Presbyterian Manor
9 Kansas City Presbyterian Manor
10 Lawrence Presbyterian Manor
11 Manor of the Plains, Dodge City
12 Newton Presbyterian Manor
13 Parsons Presbyterian Manor
14 Rolla Presbyterian Manor
15 Salina Presbyterian Manor
16 Sterling Presbyterian Manor
17 Topeka Presbyterian Manor
18 Wichita Presbyterian Manor
## Comparison of Health Care Systems

### US / Germany / France

<table>
<thead>
<tr>
<th>Comparison</th>
<th>US</th>
<th>Germany</th>
<th>France</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual cost of LTC in SNF per resident per year</strong></td>
<td>$73,000(^1)</td>
<td>$50,000</td>
<td>$42,000</td>
</tr>
<tr>
<td><strong>Annual cost of adult incontinence products</strong></td>
<td>$1,020</td>
<td>$405*</td>
<td>$450</td>
</tr>
<tr>
<td><strong>Average # of product changes/resident day</strong></td>
<td>7</td>
<td>3.1</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>Nursing time spent on product changes in 24 hours (15 minutes/change)</strong></td>
<td>1 hour, 45 minutes</td>
<td>1 hour</td>
<td>45 minutes</td>
</tr>
<tr>
<td><strong>Education of Caregivers(^2)</strong></td>
<td>CNA: 75 hrs classroom and practical training (some states require 120 hrs)</td>
<td>1 year theoretical and practical training – includes community college and LTC community</td>
<td>4.5 month theoretical training + 6 month practical training</td>
</tr>
</tbody>
</table>

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Introduction: New Protocol

Stephanie Klevorn
Essential Incontinence Management Goals
For Person-Centered Care

- Disturbing Residents less often will increase Comfort and Dignity

- Respecting natural sleep patterns for improved alertness, reduced confusion and healthier appetite and nutrition

- Reducing the risk for falls by allowing residents to sleep through the night without the need to get up to go to the bathroom

- Higher quality products that keep the skin dryer and promote skin health

- Better leakage protection to encourage resident confidence and security

- Individualized care to respect residents’ dignity and voiding patterns

- Improving the level of participation in Daily Activities
Challenges in Long Term Care

- CNA knowledge of Adult Incontinence
- Turnover of CNA staff
- Regulatory challenges
- Focus on product, not process
- Established routines
The Science of Changing Habits
Sara Mayer
Understanding Behavioral Change

- Concept of habit change is very complex
- Several theories exist
- Transtheoretical Model of Behavior Change
  - conceptualizes behavioral change as a process
  - 1. Pre-Contemplation
  - 2. Contemplation
  - 3. Preparation
  - 4. Action
  - 5. Maintenance
- Can revert back to an earlier stage or skip forward based on internal and external factors
New Protocol and Behavioral Change

- The new protocol requires behavioral change
- Habit change is complex
- The new protocol provides a unique approach to training that incorporates behavioral change principals
- The training process is a necessity for success
Challenges of Habit Change

- Positive responses to behaviors stimulate repetition
  - This creates neural changes within the brain that create habits

- Characteristics of habits
  - Automaticity
  - Lack of deliberation and conscious intent
  - Difficulty to control

- Creates a challenging dynamic for change
Changing Habits and Promoting Person-centered Care

**Changing Habits**

- Trial and conversion process devoted to changing staff habits
- Educate all staff members through scheduled and one-on-one training
- Staff resources throughout training/trialing process
- Continued maintenance through partnership

**Benefits**

- Provide individualized solutions
- Restore normalcy to routines
- Enhance sleeping patterns
- Enhance confidence
- Minimize/eliminate leakage and odor
- Staff have more time to meaningfully interact with residents
Initial Training Period

**Trial**
5 – 10 days
- Select group of residents
- In service all shifts
- Close monitoring of product usage

**Conversion**
4 – 5 days
- Convert all incontinent residents to program
- Reinforce principles learned during trial
Implementation

Utilization of Higher Performing Products

Establishment of New Routines
- Trial and conversion process
- Changing habits of staff by implementing a new “check and change” protocol
- Fixed check and change intervals with 3 scheduled check times and 3 scheduled changes per day
- Customized schedule for each facility

Implementation
- In-Services for all shifts
- One-on-one training until the new protocol becomes habit
- Education provided on application technique and sizing
- Individualized product provision for all residents’ needs
Training Tools

- Establishing new routines

Product Change Worksheet

<table>
<thead>
<tr>
<th>Schedule</th>
<th>1:00 - 2:00am</th>
<th>5:00 - 7:00am</th>
<th>10:00 - 11:00am</th>
<th>1:00 - 2:30pm</th>
<th>4:00 - 5:00pm</th>
<th>7:30 - 9:00pm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>check wetness indicator</td>
<td>check wetness indicator</td>
<td>check wetness indicator</td>
<td>check wetness indicator</td>
<td>check wetness indicator</td>
<td>check wetness indicator</td>
</tr>
<tr>
<td></td>
<td>always change</td>
<td>always change</td>
<td>always change</td>
<td>always change</td>
<td>always change</td>
<td>always change</td>
</tr>
</tbody>
</table>

Instructions:
Change product as scheduled. When checking, use wetness indicator.

Finding - Key:
Do not change, if product is:
1= Dry
2= Wet, but not saturated

Change, if product is:
3= Saturated
4= Stool
5= Product destroyed

NAME: Room number:

<table>
<thead>
<tr>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

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Finding - Key:
Do not change, if product is:
1= Dry
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Change, if product is:
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5= Product destroyed
Further Education

Proper Application and Sizing

- Avoid leakage and common skin issues
- Improve care standards
- Avoid injuries
- Continued compliance with care standards
  - Turning, toileting programs, peri-care routines
Promoting Habit change by Incorporating Behavioral Change Principals

- New habits can be formed through the process of change
- Understanding and incorporating behavioral change principals is critical to achieving the desired end result of enhancing each resident’s quality of life
Methodology / Statistical Analysis

Susan Fry
Data Source

- Study utilized longitudinal nursing home patient assessment data based on the **Minimum Data Set (MDS)**

- **The MDS** is a standardized patient evaluation tool that provides comprehensive data on residents of nursing homes including cognitive, functional, behavioral and chronic clinical conditions
  
  - Introduced in the United States in the early 1990s in response to the Omnibus Budget Reconciliation Act of 1987 (OBRA).*
  
  - Mandated for all residents of Medicare certified nursing homes nationwide, including a full assessment on admission and annually thereafter, with a shorter quarterly assessment completed every 90 days.
  
  - The tool has been extensively evaluated for validity and reliability and is a useful tool for research studies such as this one.

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*C, Morris JN, Phillips CD, Fries BE, Murphy K, Mor V. Development of the nursing home Residents Assessment Instrument in the USA. *Age and Ageing.* 1997;27-S2:19–25*
Data Source

- All residents selected for the study were long stay chronic care patients with an OBRA (AA8a) primary reason for assessment of:
  - admission (1)
  - annual (2),
  - significant change in status (3),
  - significant correction of prior full or quarterly (4, 10), or
  - quarterly (5)

- These assessment types are consistent with the record selection logic used by CMS to calculate the nursing home Quality Measures (QMs).
Study Groups

Average Time Between Assessments = 82 Days

Pre-Intervention Assessment (N = 209) → Baseline Assessment (N = 268) → Post-Intervention Assessment (N = 229)

Control (Pre-intervention) Period → Intervention Period

Average Time Between Assessments = 85 Days
Methodology/Design

- An paired samples t test procedure was used to compare the means of characteristics for each of the two time periods (control and intervention):

  \[ H_0: \mu_{\text{baseline}} = \mu_{\text{post}} \]
  \[ H_1: \mu_{\text{baseline}} \neq \mu_{\text{post}} \]

- A two-tailed test of significance was used in order to test the difference in means with no direction specified (i.e., we had no prior expectation that one group mean was higher or lower).

- The results show the populations included in the two periods were not statistically different at the beginning of each measurement period (baseline).

1 The IBMStatistics19 (SPSS19) statistical analysis software was used to complete the analysis in this study.
Study Population

Table 1: Mean Resident Characteristics—Intervention vs. Control Groups*

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Percent Female</th>
<th>Age</th>
<th>CPS Score Baseline</th>
<th>ADL Score Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>229</td>
<td>76.9 (4.23)</td>
<td>87.6 (8.5)</td>
<td>3.72 (1.39)</td>
<td>13.41 (1.80)</td>
</tr>
<tr>
<td>Period</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>209</td>
<td>76.1 (4.28)</td>
<td>86.9 (8.1)</td>
<td>3.80 (1.31)</td>
<td>13.39 (1.96)</td>
</tr>
<tr>
<td>Period</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p-value</td>
<td></td>
<td>.848</td>
<td>.421</td>
<td>.519</td>
<td>.881</td>
</tr>
<tr>
<td>(α=.05)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*(standard deviations in parenthesis)
Depression Definition

Sad mood

Mood Persistence One or more indicators of depressed, sad or anxious mood were present and either easily altered or not easily altered by attempts to ‘cheer up’, console or reassure resident over last 7 days (E2=1 or 2) and

2 or more Symptoms of Functional Depression

- **Symptom 1** Distress
  - Negative statements (E1a>0)

- **Symptom 2** Agitation or withdrawal
  - Repetitive physical movements (E1n>0), or
  - Resists care (E4eA>0), or
  - Withdrawal from activity (E1o>0), or
  - Reduced social activity (E1p>0)
Depression Definition

- **Symptom 3** Sleep cycle issues
  - Wake with unpleasant mood \((E1j>0)\), or
  - Not awake most of the day \((N1d\text{ is checked})\), or
  - Awake 1 period of the day or less (one or none of \(N1a=\text{morning}, N1b=\text{afternoon}, N1c=\text{evening} \text{ are checked}\)) and not comatose \((B1=0)\);

- **Symptom 4** Suicidal or recurrent thoughts of death
  - Recurrent statements that something terrible is about to happen such as he or she is about to die or have a heart attack \((E1g>0)\);

- **Symptom 5** Weight loss
  - Weight loss of 5\% or more in last 30 days or 10\% or more in last 180 days \((K3a=1)\)
### Changes in Cognitive and Functional Status from Baseline to Post in Intervention and Control Periods Using Paired Sample Assessments

<table>
<thead>
<tr>
<th>Cognitive/Functional Status Item</th>
<th>Intervention Period (N=229)</th>
<th>Control Period (N=209)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPS Score</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>3.72 (1.39)</td>
<td>3.80 (1.31)</td>
</tr>
<tr>
<td>Post</td>
<td>3.77 (1.42)</td>
<td>3.84 (1.33)</td>
</tr>
<tr>
<td>p-value (α=.05)</td>
<td>.058**</td>
<td>.328</td>
</tr>
<tr>
<td><strong>ADL Score</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>13.41 (1.80)</td>
<td>13.39 (1.96)</td>
</tr>
<tr>
<td>Post</td>
<td>13.55 (1.64)</td>
<td>13.54 (1.86)</td>
</tr>
<tr>
<td>p-value (α=.05)</td>
<td>.028*</td>
<td>.066</td>
</tr>
</tbody>
</table>

*Statistically significant at the 95% confidence level (p < .05)
**Statistically significant at the 90% confidence level (p < .10)
Changes in Cognitive and Functional Status from Baseline to Post in Intervention and Control Periods Using Paired Sample Assessments

<table>
<thead>
<tr>
<th>Cognitive/Functional Status Item</th>
<th>Intervention Period (N=229)</th>
<th>Control Period (N=209)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total ADL Score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>29.23 (6.27)</td>
<td>29.05 (6.50)</td>
</tr>
<tr>
<td>Post</td>
<td>29.72 (6.13)</td>
<td>29.47 (6.23)</td>
</tr>
<tr>
<td>p-value (α=.05)</td>
<td>.006*</td>
<td>.039</td>
</tr>
<tr>
<td>Depression (% of residents)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>9.17 (2.89)</td>
<td>10.0 (3.01)</td>
</tr>
<tr>
<td>Post</td>
<td>8.73 (2.83)</td>
<td>9.57 (2.95)</td>
</tr>
<tr>
<td>p-value (α=.05)</td>
<td>.835</td>
<td>.835</td>
</tr>
<tr>
<td>Sum Indicators of Delirium (B5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>1.90 (2.01)</td>
<td>2.21 (2.41)</td>
</tr>
<tr>
<td>Post</td>
<td>1.85 (1.99)</td>
<td>2.05 (2.09)</td>
</tr>
<tr>
<td>p-value (α=.05)</td>
<td>.278</td>
<td>.536</td>
</tr>
<tr>
<td>Sum Indicators of Depression (E1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>1.23 (1.62)</td>
<td>1.29 (1.71)</td>
</tr>
<tr>
<td>Post</td>
<td>1.10 (1.52)</td>
<td>1.26 (1.69)</td>
</tr>
<tr>
<td>p-value (α=.05)</td>
<td>.054**</td>
<td>.759</td>
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</tbody>
</table>

*Statistically significant at the 95% confidence level (p < .05)
**Statistically significant at the 90% confidence level (p < .10)
Summary of Outcome Study Findings
Sara Mayer
Change in Depression Indicators

Change in % Points

- Repetitive Complaints: -2.2%
- Unpleasant Mood in the Morning: -4.4%
- Repetitive Questions: -3.0%
- Crying/Tearfulness: -2.2%

Intervention vs Control
### Change in Fall Rate

<table>
<thead>
<tr>
<th>% of Residents with Falls in past 30 days</th>
<th>Intervention (N=229)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>18.3</td>
</tr>
<tr>
<td>Post</td>
<td>13.1</td>
</tr>
<tr>
<td>p-value (α=.05)</td>
<td>.047*</td>
</tr>
</tbody>
</table>

*Statistically significant

![Bar chart showing change in fall rate](chart.png)

- **Baseline**: 18% (Intervention), 21% (Control)
- **Post**: 13% (Intervention), 15.30% (Control)
Change in Urinary Tract Infections

<table>
<thead>
<tr>
<th>% of Residents with Urinary Tract Infections</th>
<th>Intervention (N=229)</th>
<th>Control (N=209)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urinary tract infection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>10.9</td>
<td>12.4</td>
</tr>
<tr>
<td>Post</td>
<td>10.9</td>
<td>11.0</td>
</tr>
<tr>
<td>p-value (α=.05)</td>
<td>1.00</td>
<td>.565</td>
</tr>
</tbody>
</table>

![Graph showing change in urinary tract infections](image)
Change in Pressure Ulcers

<table>
<thead>
<tr>
<th>Stage</th>
<th>Control</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1 Ulcers</td>
<td>1.4%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Stage 2 Ulcers</td>
<td>6.6%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Stage 3 Ulcers</td>
<td>5.3%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Stage 4 Ulcers</td>
<td>0.9%</td>
<td>1.7%</td>
</tr>
</tbody>
</table>
Partnership Approach to Change
Stephanie Klevorn
Essential Goals
Innovative Partnership

- Developing a new partnership to optimize all aspects of Incontinence management and reduce expenditures
- Improving staff knowledge through education and hands on training
- Utilizing the least amount of product consistent with good nursing care supports resident dignity and helps contain cost
- Reducing the need for overtime through fewer product changes
- Decreasing the carbon footprint of incontinence management by reducing waste
- Supporting Culture Change through a comprehensive quality initiative
New Approach

- Reduction of number of product changes
- Introduction of scheduled check and change times
- Documentation

- Investment in customer:
  - Training – habit change
  - Monitoring – assess need for correction
  - Team Leader Panels
  - “Tool Box”
Essential Goals
Usage Reduction – Target Change Rate: 3.5 – 4 / day

**Proactive Order Monitoring**
- We process PO/order and carry receivables
- We compare orders to set baseline determined at conversion
- We contact community to problem-solve

**Waste Reduction**
- Overall waste output of incontinence products is reduced by half
- Cost savings in waste management
- Carbon footprint is reduced
Building Blocks of Partnership

1) Team Leader Panel
The new program builds a strong partnership with professional caregivers. Certain Team Leaders at the community monitor the progress of the program.

- Administrator/DON: supervision of program and staff compliance
- CNA Supervisor: monthly updates of resident lists, product selection, sizing & ongoing staff training
- Purchasing: Internal Product Distribution, Inventory Management & Ordering

2) Usage of Toolbox
The Toolbox is a detailed manual and comprehensive collection of support materials
Challenges of Program Implementation/Maintenance

- Behavioral change is challenging
- Providing resolution
- We work as partners to create solutions

**Staff reluctance to change habits**
- Trial and training process

**Staff returning to previous habits**
- Continued program monitoring
- Baseline usage

**New staff**
- Importance of Team Leader
- Usage monitoring
- Additional training
Testimonial
Susan Fry
Contact Information

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