Team Approach to Elimination of Bed/Chair Alarms and Raising the Awareness of People Noise

Health Care Reform
January 19, 2012
Presenters

- Yonell McLeod, C.N.A.
- Deborah LaRusso, LMSW
- Debora Allen, RN
Isabella Geriatric Center

- 705 Residents
- Housing
- Home Care
- Adult Day Health Care
- Child Day Care
- Community Services
- Founded 1875
- Non-profit
- Recently finished Master Planning process
Environmental Challenges with Larger Facilities

- Usually vertical, significant reliance on elevators.
- Often greater complexity in care delivery (ventilators, dialysis, etc.).
- Everything that happens in a long term care facility involves more than one, and usually many departments, which is why communication can be an especially big challenge in larger facilities.
Person-Centered Care at Isabella

- Emphasis on community
- Training
  - The Resident’s Perspective: Person-Centered Care
  - Teamwork
Person-Centered Performance Improvement

- Clearly mandated opportunities for cross-disciplinary, cross-hierarchy problem-solving (the ‘culture’ needs to support working with others outside of usual departmental responsibilities)
- Who participates
- Ideas for projects
- Workgroups (cross disciplinary, cross hierarchy)
- Integrating quality of care with quality of life
Making PI Person-Centered: Isabella’s Model

- Person-Centered Care PI Committee, developed specifically to model an inclusive approach to problem-solving.
- Participation in the Committee is cross-disciplinary, different positions (permanent members of Committee include a CNA, Dining Host, Housekeeper, CEO, VP for Quality, different shifts).
- Committee “charters” workgroups, to be made up of people representing those most affected (different disciplines, positions, residents, family members).
Environmental Values Workgroup

- Workgroup formed with representatives from different disciplines, different positions, family members, resident.
- Workgroup members interviewed other staff, residents and family members.
- Purpose of workgroup was to (1) articulate organizational environmental goals, to provide a common frame of reference, (2) help identify areas where there is a gap between goals and current practice/environment, and (3) provide basis for programmatic considerations in development of Master Plan for campus.
- Master Plan architects invited to participate in a session, and the eventual Master Plan included as a starting point the values developed by this workgroup.
Isabella Environmental Values: Basic Principle

Relationships are at the heart of both quality care and quality of life for residents. The physical environment at Isabella should promote an atmosphere of comfort, clinical competence and quality of life for residents, be welcoming and appealing to family members and visitors, and be respectful, pleasant and supportive for staff.
Noise should be minimized throughout the facility, and especially in resident rooms and on the neighborhoods. Use of earphones (for televisions, radios, etc.) in resident rooms should be facilitated.

There should be an inclusive process for discussing in advance any proposed changes that will affect the environment on a neighborhood. This process should address both the change itself, as well as the steps for implementation.
**Mechanical Noise Sources**

- Call bell system
- Television
- Tube feeding pumps
- Pill crusher
- Specialty mattress equipment
- Oxygen concentrators
- Air/heat ventilation system
- Ice Machines
- Narcotic box alarm
- Bed/chair alarms
- Squeaky wheels
- Cleaning
- Ventilator alarm
Negative Effects of Noise

- Sleep disruption of residents
- Altered mood state of residents (agitation, aggressive behavior, depression, increased confusion)
- Falls
- Increased heart rate and blood pressure of staff, residents and visitors
Elimination Process

We asked each neighborhood team to count up how many bed/chair alarms are being used.

We had a total of 209 alarms in use!

We requested that the teams review the resident care plan to evaluate for effectiveness.
Chair And Bed Alarms Observation

- The bed/chair alarms ringing caused negative responses
- The neighborhood team did not hear the alarms
- It became noise pollution
Elimination Process

The workgroup requested the Falls Committee to evaluate the use of bed/chair alarms.

We requested a review by neighborhood of all the falls in the facility for the past 6 months, to determine how many alarms were included in the reports, and did they prevent falls.
Cost Of The Alarms

- Chair Alarm- $92.56 per alarm
- Bed Alarm- $89.95 per alarm
- Power adapter- $6.95
- Safe Fall alarm for doors- $107.50 per alarm

Average cost of Alarm usage over-one year

$15,517.78
The workgroup requested the Falls Committee to evaluate the use of bed/chair alarms. They were eventually all discontinued, and this along with other interventions resulted in a 24% reduction in falls.
Sustainability

Two years later our fall rate has decreased by 30% since the beginning of the elimination of the bed/chair alarms.
People Noise Workgroup

- Guided by our basic environmental value: relationships are at the heart of both quality care and quality of life.
- Most workgroup members from non-neighborhood-based departments including MIS, transportation, Support Services and Security. All are attuned to environment when on neighborhoods.
- Sources of people noise: Cell phones/pagers, change of shift, use of call bells, speaking in different languages/tones of voices, speaking over equipment and other neighborhood noises.
- Gathering/conversing in the hallways/nursing stations/by time clocks.
- Focus on bringing awareness to the level of noise in any given area.
- Yacker Trackers rotated to each neighborhood and high traffic areas
- Focus on residents who scream and call out. Behavior is often related to a need to feel connected. Workgroup focusing on tool to help staff on units address this resident need.
<table>
<thead>
<tr>
<th>Rm #</th>
<th>Resident's Name</th>
<th>D</th>
<th>E</th>
<th>N</th>
<th>Music - effective Y/N</th>
<th>Touch - effective Y/N</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Behavior Tracking Form (Pilot Study)

Resident Name: ______________________  Unit/Room Number ______

Date:
7:30-9:30am
9:30-11:30am
11:30-1:30pm
1:30-3:30pm

Initials
3:30-5:30pm
5:30-7:30pm
7:30-9:30pm
9:30-11:30pm
Initials
11:30-1:30am
1:30-3:30am
3:30-5:30am
5:30-7:30am

Initials

Target Behavioral Symptoms: Calling Out
0 = none, quiet
1 = occasional calling out
2 = frequent calling out
3 = continuous calling out

<table>
<thead>
<tr>
<th>Initial</th>
<th>Signature</th>
<th>Title</th>
<th>Initial</th>
<th>Signature</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of target behavioral symptoms and response to interventions:

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________
Questions To the Team

- How would you describe the person's behavior?
- What do you think is causing the behavior?
- What seems to make it worse?
- What happens just before the behavior occurs?
- What staff behaviors provide comfort to the resident?
- How did the resident cope with problems earlier in life?
- Does time of day, rest, noise, pain or eating affect the behaviors?
- How does the person's behavior affect other residents and vice versa?
Getting Better 
All the Time

Working Together for Continuous Improvement: 
A Guide for Nursing Home Staff

This Manual is a product of the Cobble Hill—Isabella Collaboration Project
Cobble Hill Health Center — Isabella Geriatric Center

We gratefully acknowledge the financial support of The New York Community Trust, 
the United Hospital Fund, and 1199 SEIU Training and Employment Funds.
To obtain copies, contact:

Ellen Harnett, Isabella Geriatric Center, 
[eharnett@isabella.org](mailto:eharnett@isabella.org)
or
Louise Dueno, Cobble Hill Health Center, 
[ldueno@cobblehill.org](mailto:ldueno@cobblehill.org)
# Mechanical Noise References

<table>
<thead>
<tr>
<th>Product</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceiling Tiles</td>
<td><a href="http://www.acousticalsurfaces.com">www.acousticalsurfaces.com</a></td>
</tr>
<tr>
<td>Noise Tracker</td>
<td><a href="http://www.yackertracker.com">www.yackertracker.com</a></td>
</tr>
<tr>
<td>Curtains</td>
<td><a href="http://www.acoustic-curtains.com">www.acoustic-curtains.com</a></td>
</tr>
<tr>
<td>Wireless Pagers-Call Bell System</td>
<td><a href="http://www.tektone.com">www.tektone.com</a></td>
</tr>
<tr>
<td>Nurse Call Bell System</td>
<td><a href="http://www.wirelessnursecall.com">www.wirelessnursecall.com</a></td>
</tr>
<tr>
<td>Silent Pill Crusher</td>
<td><a href="http://www.mohawkmedicalmall.com">www.mohawkmedicalmall.com</a></td>
</tr>
<tr>
<td>Oxygen Concentrator</td>
<td><a href="http://www.portableoxygenconcentrators.com">www.portableoxygenconcentrators.com</a></td>
</tr>
<tr>
<td>Ice machines</td>
<td><a href="http://www.scotsman-ice.com">www.scotsman-ice.com</a></td>
</tr>
<tr>
<td>Head Wireless Sets</td>
<td><a href="http://www.Bose.com">www.Bose.com</a></td>
</tr>
</tbody>
</table>