Research in Nursing Facilities: Is there a Method for the Madness

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Nursing Homes

“The place resounds everywhere with loneliness and isolation and the romance of what has been lost.”

-E.B. White
Why Research in Nursing Homes?

- To learn how to improve care.
- To combat the shifts in care which occur from anecdotal events
- To provide evidence which can inform policies and regulations
- To find a better way

A Case

- CS, a medical student, is committed to a career in geriatric medicine. To strengthen her residency application she would like to conduct research in 3 local nursing homes. Her goal is to investigate if visiting residents twice a week with her dog, Lily, will improve residents’ mood. She will ask staff to fill out a survey on the residents mood before and after a visit with Lily.
- CS has an excellent albeit very busy mentor who thinks it is a great idea. With guidance, CS writes a proposal and completes Lily’s training as a service dog.
CS is Motivated, Excited and Ready to Start!

- CS makes appoints with administrators at the 3 local nursing homes to discuss her plans:

  **Meeting Results:**

  - **Nursing Home 1:** Sounds like an interesting study.” Our staff will not have time to survey residents. They already have too much to do as it is.
  - **Nursing Home 2:** Sounds like an interesting study. Administrator and the Director of Nursing are both brand new (the last 2 were let go after a “bad survey” and it is not the right time for any new projects.
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What does CS do?

- Reviews her options to gain some research experience:
  - Work with Dr. P. in his microbiology lab
  - Work with Dr. L. to analyze a large dataset
  - Work with Dr. T on his pharmaceutical sponsored trial, recruiting participants from clinic.
Research in Nursing Facilities: Unforeseen Challenges

- Facility Agreement
  - Who has to agree? Administrator, Corporate, Director of Nursing, residents?
- Workload
  - Who does the research work? – running the protocol and collecting the data – facility staff or researchers?
- Facility Risk
  - What is the risk to the facility and to the residents? Very risk averse environment?
- HIPAA Protections
  - Who is responsible to protect PHI? What about cognitively impaired participants?
- IRB
  - How will you train all facility staff involved to be compliant with IRB human subjects training

Lessons Learned in Engaging Facilities in Research

- Ask questions and listen
- Learn about the nursing home community – different in different region
- Aligned your research with things that “matter” to nursing facilities
- Learn the major influences of care in local facilities
- Limit risk
- Limit staff “work”
- Start small
- Find individuals who are supportive of research and are well connected in the nursing home community
Take the Nursing Facility out of the Research: The Work-Around

- Redefine the nursing facility as a "community recruitment site"
- Don’t involve any of the facility staff in research activities
- No IRB required training for facility staff

Perfect approach to ask a clinical question
- Will a Heart Failure Disease Management Program improve outcomes for patients with HF in SNF?
- Trained research staff deliver the intervention and collect all the data
- Assure fidelity of the intervention

A Randomized Controlled Trial of Heart Failure Disease Management in Skilled Nursing Facilities
Clinical Outcomes in HF Patients Discharged to Home vs. SNF

Study Methods

- RCT of HF-DMP vs Usual Care
- Physicians are randomized, serve as the cluster to avoid contamination of the intervention through physicians/NPs
- Participants are followed for 60 days from SNF admission
SNF Connect
Heart Bridge care from hospital to home

- 23 facilities participating
- 5 full time staff
- 7 additional facilities waiting to join (contracting)
- 165 participants (goal is 1404)

Colorado Skilled Nursing Facilities Currently Participating

- Heritage Club Mountain View
- Heritage Club Greenwood Village
- Manor Care of Denver
- Highline Rehab
- Summit Rehab
- Amberwood Court
- Christopher House
- Clear Creek Care Center
- Sandalwood
- Advanced Health Care of Aurora
- Brookside Inn
- Gardens on Quail Center at Lincoln
- Orchard Park
- Cherrelyn
- Jewell Care Center
- Monaco Pkwy Health & Rehab
- State Veterans Home
- St. Paul Health Center
- Autumn Heights
- Brookdale Rostyn
- Kindred Aurora
- Holly Heights
- Wheatridge Manor
HF-DMP Protocol

Collect the exact same measures from Usual Care, from SNF chart.

Boxer et. al. JAMDA 2013

<table>
<thead>
<tr>
<th>Primary End Point</th>
<th>Composite all-cause Hospitalizations, emergency department visits, mortality (at 30 and 60 days post-SNF admission)</th>
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<tbody>
<tr>
<td>Secondary Endpoints</td>
<td>• Composite CV hospitalizations, emergency department visits, mortality (at 30 and 60 days post-SNF admission)</td>
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<tr>
<td></td>
<td>• Heart Failure hospitalization (30 and 60 days post SNF admission)</td>
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<td></td>
<td>• Total number of all-cause hospital admissions and ED visits from baseline to 60 days post SNF admission</td>
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<tr>
<td></td>
<td>• Change in health status (KCCQ) at 60 days</td>
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<tr>
<td></td>
<td>• Change in HF self-management (SCHFt) at 60 days</td>
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<td></td>
<td>• Residential nursing home admission at 60 days</td>
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<td></td>
<td>• Cost-Effectiveness of HF-DMP</td>
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Boxer et. al. JAMDA 2013
Key Features of the Study

- SNF is a complex environment
- Large number of participants needed
- Complex intervention
- Unrealistic for SNF staff to deliver the intervention
- If the question is: Does the intervention work then need to have a well run intervention.
- HF management is fairly straight-forward and nurses are the frontline

SNF Connect

- 24 facilities participating
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- 165 participants (goal is 1404)
Unexpected Challenges to Recruitment

- **Initial Screening Procedure:**
  To test if we would miss patients with a diagnosis of HF
  Screened every admission. 72/812 (9%) eligible

- **Modified Screening Procedure**
  To decrease work load
  Screen only admissions with cardiac diagnosis. 159/350 (45%) eligible

<table>
<thead>
<tr>
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<th>Total</th>
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<tr>
<td>Screened, n</td>
<td>1162</td>
</tr>
<tr>
<td>Eligible, n</td>
<td>231 (20%)</td>
</tr>
<tr>
<td>Unaware of HF Diagnosis, n</td>
<td>56 (24%)</td>
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<tr>
<td>Enrolled, n</td>
<td>97 (42%)</td>
</tr>
<tr>
<td>Unaware of HF Diagnosis, n</td>
<td>21 (22%)</td>
</tr>
<tr>
<td>Refused Enrollment, n</td>
<td>124 (54%)</td>
</tr>
<tr>
<td>Unaware of HF Diagnosis, n</td>
<td>35 (28%)</td>
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Unexpected Challenges to Recruitment

- Timing of approaching patients
- Getting in touch with proxy (expected)
- Patient availability
Now, the Problem

- Worked AROUND the facility
  - Did not engage the facility, rather received permission
  - Will know if a HF program “could” work
  - But still won’t know if it works in the SNF
  - Will facilities even want to conduct a HF program?
- Still know very little about changing practice in nursing facilities

Next Phase of Research

- If the HF-DMP is a success, will need to be implemented
- How does this get done?
- Will facilities be able to pick up the program and change HF practice?
- Will facilities even want to, will it be worth it to them?
- Just knowing something works does not mean it will happen.
Leading Change: Why Transformation Efforts Fail
(Learning from Business Leaders)

Step 1: Urgency
Where is the crisis?
Where is the major opportunity?
What Creates Urgency for Nursing Facilities?

- State Surveys
- Star Ratings
- Loss of Revenue/Empty Beds
- Bad Press
- Litigation
- Rehospitalizations**

5 Star Rating System

1) Health inspections - Certified nursing homes must meet over 180 regulatory standards designed to protect residents. Examples of these standards include:
   - Proper management of medications
   - Protecting residents from physical and mental abuse
   - Storage and preparation of food

2) Quality measures the residents' health, physical functioning, mental status, and general well-being. Nursing homes self-report this information to Medicare (MDS)

3) Staffing – varies by state

3 recent changes to the 5 Star Nursing Home Quality Rating System:

- Incorporated 2 quality measures for antipsychotic use into the Quality Measure Rating.
- Increased the # of points necessary to earn a Quality Measure Star Rating of ≥ 2 stars.
- Must earn a 4-star rating on either the RN or total Staffing rating to achieve an overall Staffing rating of 4-stars.

http://www.medicare.gov/nursinghomecompare
Step 2: Create a Guiding Coalition
Assemble a group with enough power to lead a change effort
Networking with people of power who could assist in getting others to participate

CMDA was key to getting the SNF Connect trial underway.

Who has the Power to make Change?

- Hierarchical structure in Nursing Facilities
- Local
  - Administrator – facility based corporate representative
  - DON – lead of nurses and patient care
  - Medical Director
- Regional leadership
- National corporate leadership

Those with the power to make changes in nursing facilities have to be a part of the guiding coalition, have to discern who that will be.
Researchers also have Regulators and Overseers

- Institutional Review Board
- Granting Agency
- Division and Department Chair
- Administrators

Step 3: Develop a Vision and a Strategy

Vision must be shared and a strategy developed by the team

Many nursing home companies already had the vision and were developing strategies to start cardiac programs. (Timing)
Whose vision is this anyway?

- Major issue for researchers – i.e. only one with their particular vision
- Researchers put the research into the facility
- Vision must be shared amongst the coalition
- If you can’t communicate the vision in 5 minutes or less and get a reaction that signifies both understanding and interest – your vision is not ready.

Helicopter Research

- Bring in research, test for a change and then complete the research.
- No long lasting effects
- No meaningful change
- Loss of trust/perceived partnership
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Conclusions

- Nursing Facilities are in need of change.
- Partnership between researchers and nursing facility stakeholders can help drive change.
- Non-punitive methods (bad star ratings, penalties for readmission) such as EBM has a lot to offer in this setting.