Examining the Role of Communication in a CHF Care Coordination Home Telehealth (CCHT) Service

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and

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- **Solicitation: Implementing Research into Practice to Improve Care Delivery (2009-2011)**
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- **REAP: Center for Disease Prevention and Health Interventions for Diverse Populations**
- **Disclaimer**: ***The views expressed in this presentation are those of the authors and do not necessarily represent the views of the U.S. Department of Veterans Affairs.***

Objectives

- Identify common approaches to communication research in telehealth and HF
- Summarize the method used by this health service research team to improve Veteran care
- Provide examples of how provider-patient communication in heart failure decision making and telehealth can be structured by technology and improved by attention to shared decision making and best practices in communication

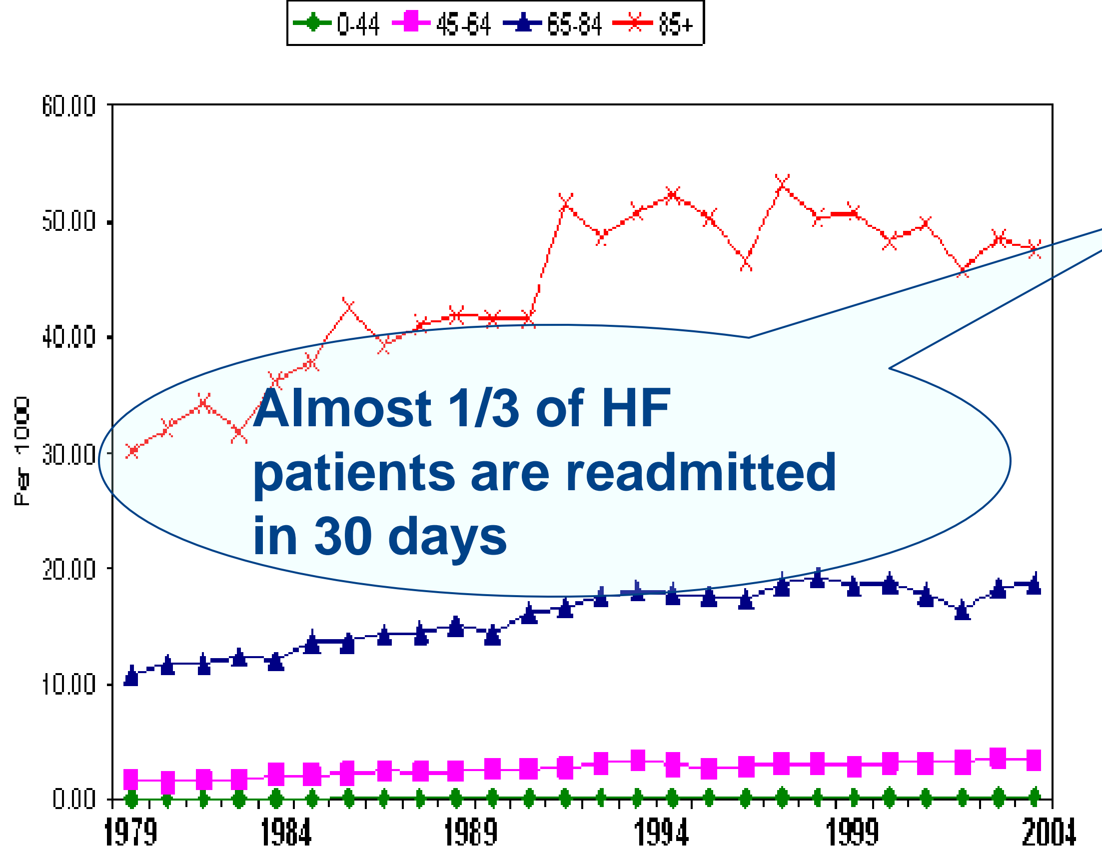
VA Care Coordination: Home Telehealth (CCHT)

Taken from VA Office of TelehealthServices:
http://www.carecoordination.va.gov/telehealth/ccht/index.asp

CCHT

- Not just technology
- Intended for self-monitoring and to promote self-management
- Nurse care coordination
- Medication reconciliation
- Access to electronic medical records
- Provider access & health system support

Why Heart Failure & Communication?



Source: CDC Chronic Disease Indicators.

- Over 5.8 million people in the United States have heart failure.
- About 670,000 people are diagnosed with HF each year
- In 2010, HF will cost the United States $39.2 billion.

Ref: CDC, 2010

Defining Health Communication

Message Transmission :** Health Facts

Therapeutic Communication: Reflection & Health Advice

Talk

Relationship Building: Health Partnerships

Persuasion: Health Behavior Change

Preferences

Speaking practices

Cultural *habitus*

Emotions

Power

Attitudes

Tone

Social Contexts

What's Missing?

Center for Disease Prevention and Health Interventions for Diverse Populations

Common Health Communication Research Methods: Limitations

- Functional = Content analysis of recordings (what is said & topics covered)
- Instructional = Rating scales, surveys (what people believe or understood)
- Regulative = Participant observation & records
- Relational = Qualitative (Feelings, perceptions)
- Identity management = Satisfaction measures, health status assessments, attitudes, media campaigns

Reference: Kasch, C. R. (1984). Interpersonal competence and communication in the delivery of nursing care. *Advances in Nursing Science, 6*(2), 71-88.

Telemedicine & CCHT Communication Studies

- **Fincher et al (2009) Satisfaction scale**
- **LaFramboise et al. (2009). Patient perceptions.**
- **Agha/Roter (2009) Physician styles.**

- ***Where are the studies of the interpersonal process or communication practices in telehealth?***
- ***Where is the link between communication practices and patient outcomes?***

Alternative Communication Process Research Methods

- Narrative analysis: Explanatory models
- Speech acts: Meanings, practices
- Interaction analysis: RIAS (Roter)
- Discourse analysis (How things are said, variations, markers of intention, inference)
- Conversation analysis (sequences, turn-taking, interruptions)
- Stance analysis (positions people take in talk: agency, uncertainty, identities)

Alternative Approaches Reported

- *Wakefield et al. (2008)**. VA Missouri. Communication Profiles in CCHT,* comparing video and telephonic modes

- Sävenstedt et al. (2005). Conversation analysis; joint attention in talk with elderly persons in teleconsultations.

Charleston REAP

** <u>Study initiated by the CCHT Nurses who asked:</u>

- *How can we improve our service?*
- *What should we focus on in training new CCHT staff and monitoring quality?*

<u>Research Team for Communication Studies</u>:
Charlene Pope, PI;
Boyd Davis, UNCC & Bonnie Wakefield, VA Missouri, Co-Investigators;
Bertha North-Lee & Clare Pittman, VA Study Coordinators
Gregory Gilbert, VA Statistician, Peyton Mason, Sociologist
Ronald Epstein, MD, University of Rochester, Consultant

Communication in CHF Care Coordination in Home Telehealth (CCHT) Implementation

Study goals and objectives

- To categorize shared decision making and quality of communication that characterize interactions between 50 Veterans with CHF and their nurse care coordinators

- To link communication patterns during typical problem-initiated, Veteran-nurse CCHT interactions with specific CHF quality of life and quality of care outcomes

CCHT Veteran Sample

- Average age = 68 (45 -83 years)
- Race/ethnicity: 23% Black and 77% White
- Education = 12.5 years
- HF severity (NYHA Scale):
  - Class I = 12%
  - Class II = 38%
  - Class III = 40%
  - Class IV = 8%
- Health Literacy: 50% screened marginal or low literacy**

Quality of life decreased & Depression increased with each HF Class ↑

CCHT Nurse Care Managers

- 4 panels ranging from 65-85 Veterans
- Potential growth to 100-120 per panel
- Of total CCHT 386 currently: 190 Veterans monitored for HF
- From 2008 to Feb 2011:

CCHT CHF Program reduced ER visits by 12%, discharges by 29%, BDOC by 37%

Methodological Approach to Cognitive Mapping

Application of CPIDR to spoken text discussion about the map for idea density, word frequency, & propositional density

<u>Findings</u>:

- **More Veteran psychosocial and emotional topics, details**
- **Mechanical approach to care**

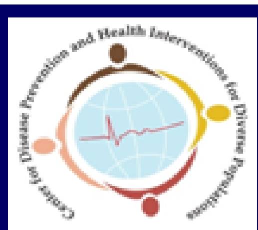
COMPU
FOR PSYC

Language is a window into the brain.

Discourse Trends: Concurrent Study

- *"I am a diabetic"*
- *"I have diabetes"*
- *"I suffer from diabetes"*
- *"I have a little sugar"*
- *"They say I have diabetes"*

Owning the Disease



Discourse Trends: Denial, Ownership, & Agency

- **Of 50 patients interviewed, few said "*I have congestive, chronic or heart failure*"**
  - **<u>What does it mean to not name the disease</u>? Exceptions**
  - **… "*My heart condition…*"**
  - **"*I have been living with heart failure*"**
  - **"*They say I have congestive heart failure*"**

Stance Analysis

- Personalization & Agency
- Elaboration & Affect
- Opinions & Information
- Rationale & Intentions

Segment	Speaker	Opinion	Rationale	Feeling	Agency	
38	61207	0.44	1.03	-0.68	0.40	#38 %: –I don't know if you under
39	61207	0.07	0.20	-0.96	-2.96	#39 %: to go there I feel embarra:
40	61207	2.96	0.39	-1.01	-2.45	#40 %: sugar. I want to say, hey,
41	61207	0.17	-0.79	-1.05	-0.12	#41 %: vitals . . . . . . my weight .
42	61207	1.02	-0.98	0.69	-0.45	#42 %: listen to the sermon and .
43	61207	1.50	-1.36	3.01	-0.14	#43 %: I'm sorry, I didn't mean to
44	61207	-0.79	-1.16	0.67	-1.43	#44 %: that's going. When I get
45	61207	1.32	-2.03	1.64	1.03	#45 %: and talk to the head docto
46	61207	0.84	-0.05	-0.41	-0.49	#46 %: talking when I tell him abo
47	61207	-1.85	0.88	0.75	0.23	#47 %: And even though my husk
48	61207	-0.96	-0.22	0.62	0.63	#48 %: Why is my sugar always s
49	61207	-0.66	0.06	-0.61	-0.70	#49 %: I started out being a diabe
50	61207	-0.22	-0.35	-1.54	-1.11	#50 %: whether he was being dis
51	61207	-0.11	-0.64	-0.01	0.36	#51 %: . . . (pause for call to husb
52	61207	-1.35	-0.54	-0.71	1.23	#52 %: provider. For what? We
53	61207	-0.40	0.60	-0.76	-0.47	#53 %: take Avandia . . . . . . I ha
54	61207	-0.25	1.27	-0.42	2.08	#54 %: I . . . have un, uncontrollal
55	61207	0.39	-3.30	2.99	1.65	#55 %: Yes, ma'am. A lot . . . It

The four dimensions for this interview set can be considered the major themes, as follows:

Co-investigator: Dr. Boyd Davis, University of North Carolina at Charlotte with Dr. Peyton Mason, *Next Generation Marketing Insights*

Barriers to HF Self-Management

- CCHT Nurse finding:

** Estimate 80% of Veterans being discharged with HF do not know what it means

I: All right, this is nurse 18 talking to patient #31, congestive heart failure. Ah, I'm calling ahm.. sir because I noticed that your weight was up a little bit this weekend? [open-ended question, but tone sounds 'yes-no']

P: Yep.

I: And I was calling to see what happened? [Quick pace]

P: Don't know.

I: You don't know? [yes/no question]

P: No.

I: Okay, are you having any signs of any heart failure?

P: N..n..not that I know of. [Assumes knowledge of HF]

I: Okay, how's your breathing? [Invites evaluation]

P: Good.

I: And, are you holding on to any water?

P: Ahm….. No. [Reverts to yes/no questions; non-conclusive end]

Best Practices: Building Engagement

I: Right. I don't, I just called to see how you're doing?

P: Um um.

I: And, cause your blood pressure goes up and down, up and down \ [silence]

P: Oh yea and I, I don't know what to do about it? It, listen…. it got so low yesterday that ahm, I felt so bad I, I wanna sleep too, when it's like that …. I wanna just lay down and, and sleep you know?

I: Yea. *[Prosody rhythm in Nurse's voice and pause prompts continuing]*

P: And, I, it's just ahm… and you know I'm gettin frustrated, I'll tell you the truth. I went to the heart doctor and, and…

I: To the what?

P: To the, to the cardiologist?

I: Okay.::::: *[Uses continuing prompt, not discourse turn ender]*

P: And I, I told him, you know I said.. look my blood pressure fluctuates so much if I take the medicine two day, ah all day, two doses a day, my blood pressure ends up like 80/40? *[Reported speech]*

I: Um um.

P: And, I told him that. And, I said then if I hold off on it for ah do one ahm one time, ah it goes high? *[Story continues with self-management plan]*

Results: Openings

- Good relationships and rapport building
- Talk tended to be structured by technology, rather than a Veteran-centric agenda
- Prompts: Health Buddy, CPRS results, alerts
- After coding, CCHT Nurses identified how rarely Veterans could name their disease
- Few open-ended questions asked about self-management of HF, given technology set priorities

Triangulating Talk with Outcomes

1

Rochester Participatory Decision-making Scale (RPAD) – 2005 Version

Cleveland G. Shields PhD -- Ronald M. Epstein MD
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** CCHT Adaptation (Pope-Distler)

Potential Points –Answer Sheet 14 possible points		Score
1	*Opening the issues needing decisions and problem-solving* 0 = Brief or hurried initiation without … of decisions to be made ½ = Establishes social engagement, … , or acknowledges past interaction ½ = Asks open-ended question re status (beyond "how are you") 1 = Identifies the Veteran's needs or agenda first ; give ½ point if this is done later in talk	2
2	*Explain the clinical issue or problem and nature of the decision/s involved* 0 = No Evidence. …d, unclear, rushed explanation, or long … part of patient description … se) view of the medical/clinical problem	1
	…iated with the situation …al … y or only … ncertainties in the decisions to be made,	1
	…nt problem, potential decisions or priorities …irms patient agreement and tries to obtain a …an for problem-solving or the treatment plan	1
	…or Problem Solving or Treatment Plan … ment contexts/barriers …'s concerns or barriers facing problem solving or …ent plan	2
	…y to ask Questions and Checks Patients …Solving or final Treatment Plan* …s …nderstanding of problem or plans and responds to …hly	1
	…es patient's level of understanding …ility … uage … HT … hes most of …HT nurse and patient's language *clearly* matches.	1
	0 No evidence ½ Yes but no discussion en…	1

Patient Agenda

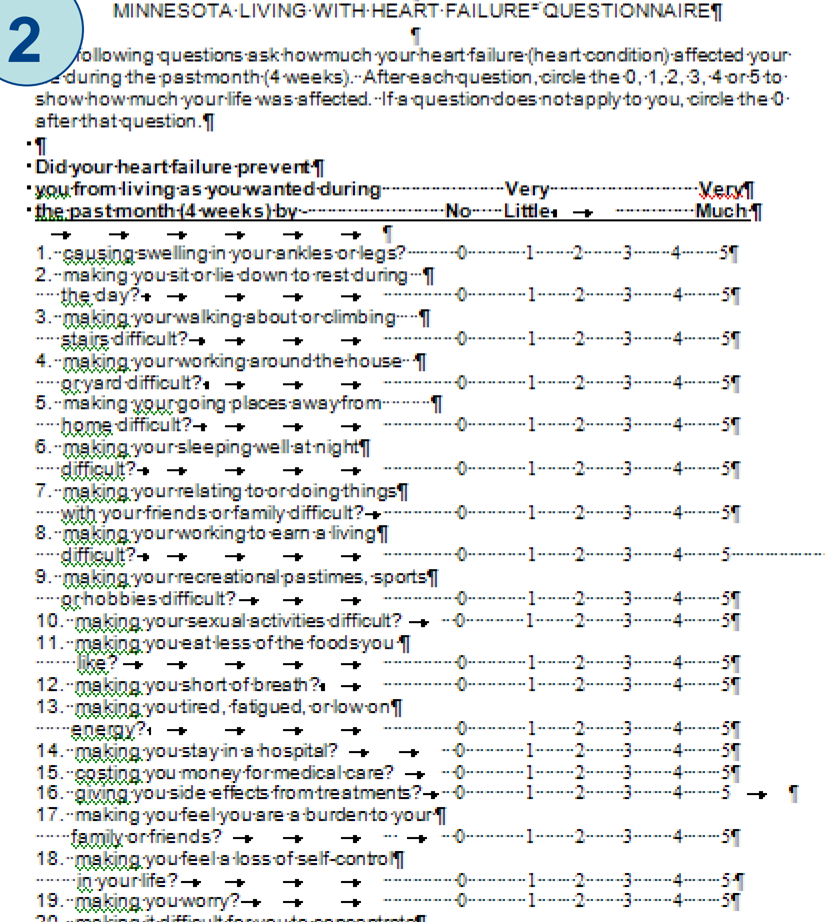
Uncertainties

Barriers

Teach Back

Open-ended questions

Protected research tool;
Do not duplicate.
Not meant for intervention


2

MINNESOTA LIVING WITH HEART FAILURE® QUESTIONNAIRE

…following questions ask how much your heart failure (heart condition) affected your …e during the past month (4 weeks). After each question, circle the 0, 1, 2, 3, 4 or 5 to show how much your life was affected. If a question does not apply to you, circle the 0 after that question.

Did your heart failure prevent you from living as you wanted during the past month (4 weeks) by -	No	Very Little				Very Much
1. causing swelling in your ankles or legs?	0	1	2	3	4	5
2. making you sit or lie down to rest during the day?	0	1	2	3	4	5
3. making your walking about or climbing stairs difficult?	0	1	2	3	4	5
4. making your working around the house or yard difficult?	0	1	2	3	4	5
5. making your going places away from home difficult?	0	1	2	3	4	5
6. making your sleeping well at night difficult?	0	1	2	3	4	5
7. making your relating to or doing things with your friends or family difficult?	0	1	2	3	4	5
8. making your working to earn a living difficult?	0	1	2	3	4	5
9. making your recreational pastimes, sports or hobbies difficult?	0	1	2	3	4	5
10. making your sexual activities difficult?	0	1	2	3	4	5
11. making you eat less of the foods you like?	0	1	2	3	4	5
12. making you short of breath?	0	1	2	3	4	5
13. making you tired, fatigued, or low on energy?	0	1	2	3	4	5
14. making you stay in a hospital?	0	1	2	3	4	5
15. costing you money for medical care?	0	1	2	3	4	5
16. giving you side effects from treatments?	0	1	2	3	4	5
17. making you feel you are a burden to your family or friends?	0	1	2	3	4	5
18. making you feel a loss of self-control in your life?	0	1	2	3	4	5
19. making you worry?	0	1	2	3	4	5
20. making it difficult for you to concentrate or remember things?	0	1	2	3	4	5
21. making you feel depressed?	0	1	2	3	4	5

3 **Re-Admissions in Target Year**

Results: Process

- No evidence of disparities in service
- Predominant style yes-no questions
- Overall low level of shared-decision making, though Nurses were very responsive to feedback
- CCHT Nurses tended to quickly change to more positive communication practices after coding

Planning Change:

Best Practices

- Review what Veteran knows about HF and self-management
- Veteran agenda
- Open-ended questions
- Active listening, prompts & use of silence
- Attend to Veteran cues
- Action plan = Reinforce participation
- Use Teach-Back
- Ask "What Other Questions.. ?" at end

Challenges

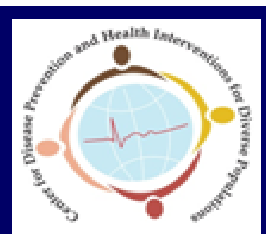
- Technology set the agenda
- Gaps in Veteran discharge & out-pt. understanding
- Predominant yes-no questions
- Interruptions or markers for nurse-set agenda
- Faster pace than maps
- Over-help: Taking away agency inadvertently
- Need for an action plan, not just technology response

CCHT Nurse Response

- **Plans for a Manual of Best Practices in CCHT Chronic Disease Communication**
- **Approach to VISN & National CCHT to add to communication training**
- **Proposal for a multimedia, interactive communication module for chronic disease**
- **Use of findings in quality improvement**
- **Next project: *Communication for Care Transitions* to decrease 30 day readmissions**

Implications for Practice

- **Patterns of Best Practices in communication about chronic disease self-management**
- **Playback reflecting on recorded interactions improves communication**
- **Standards for Telehealth evaluation and communication training:**
  - **Where are the Evidence-Based *Communication* courses?**



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