Shared Goals Empower Teams in Complex Care Delivery

Bradford W. Hesse, PhD
Chief, Health Communication and Informatics Research Branch
“Those of us with multiple chronic conditions may consult many physicians in the course of a year. Last year, I saw 11. Not one of my doctors has ever communicated directly with another… I am the sole arbiter of who gets what information in what format and when.”

Jessie Gruman

Joint Cognition
Sen, Ayan et al.
Joint Cognition

Main Idea

“Joint cognition is the combination of humans and automation/technologies which must interact as co-agents to solve problems and achieve goals and objectives in a complex work domain.”

-Sen, Ayan et al
Joint Cognition
Human System Integration

Knowledge in the Head*

Task Relevant Schemata

Knowledge in The World*

Updated Knowledge

Activity
Joint Cognition

Limitations in current system
Joint Cognition

Limitations in current system
Joint Cognition

Why joint cognition fails

- Team complexity
- Dynamic communication and coordination challenges
- Goals and perspectives of different specialists
- Poorly designed communication technology and medical records
Joint Cognition
Deconstructing & Preventing Error

Cognitive Ergonomics

• Improving situational awareness
• Error-proofing communication
• Creating a platform for shared decision-making
Project Management
Trosman JR, Carlos RC, et al.
Project Management

Main Idea

“Following IOM recommendations, we propose adapting concepts from project management discipline to facilitate TI (Task Interdependence) management in oncology.”

–Trosman JR, Carlos RC, et al
Project Management
When Management Fails

- Competing goals, timelines
- No one monitoring task completion or succession
- Multiple task dependencies delay tests, treatments
- Responsibility for coordinating tasks absent, or falls on patient

The New York Times
Awash in Information, Patients Face a Lonely, Uncertain Road

By JAN HOFFMAN
Published: August 14, 2005

Cancer patient
Meg Gaines
# Project Management

Manage tasks, roles, and timing

<table>
<thead>
<tr>
<th>Critical Path Task</th>
<th>Responsibility</th>
<th>wk 1</th>
<th>wk 2</th>
<th>wk 3</th>
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<td>Verify insurance and all providers</td>
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<td>Identify necessary charity care</td>
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<td>Fertility Preservation treatment</td>
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<td>Run genetic test</td>
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<td>Genetic results back to Genetic Counseling, Surgeon</td>
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<td>Appt with Genetic Counseling to discuss results</td>
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Project Management
Consistent with patient-centered medical home in oncology

- Lead Physician
- Lead Coordinator

+ 
- Management tools
- Monitoring tools
Backup Behavior
Huang, Fleur et al
“Backup behavior, where one team member steps in to help another, … help ensure that individual provider efforts can effectively translate into improve palliation for patients with unmet needs.”

-Huang, Fleur et al
Backup Behavior
When Backup Fails

- Team member refuses patient need: “not my table” phenomenon
- Roles, tasks unclear
- Situational awareness is lacking
- Team member acts beyond license
- Coordination costs exceed demand
Backup Behavior

Tools for Improvement

- Monitoring: white boards, dashboards, medical huddle sheets
- Communication: checklists, skills training, pagers/smartphones
- Cultural change: Training modules, quality improvement processes
Backup Behavior

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Backup Behavior

Tools for Improvement

- Monitoring: white boards, dashboards, medical huddle sheets

- Communication: checklists, skills training, pagers/smartphones

- Cultural change: Training modules, quality improvement processes
(Shared) Goal Setting

Magnuson, Allison et al
(Shared) Goal Setting

Main Idea

Shared goal setting is an alignment process “that must occur several times at critical decision points throughout the patient’s care continuum.”

-Magnuson, Allison et al
(Shared) Goal Setting

When goal-setting goes awry

- Reduced effectiveness, teams at cross-purposes, harmful treatment interactions
- Increased costs, redundant tests and therapies, missed opportunities
- Patient disengagement, decreased satisfaction, negative quality of life
(Shared) Goal Setting

Main Functions

- Directive
- Task generative
- Energizing
(Shared) Goal Setting

Main Functions

- Directive
- Task generative
- Energizing

Joint Cognition

Treatment Plan
Survivorship Plan
Advance Directives
(Shared) Goal Setting

Main Functions

- Directive
- Task generative
- Energizing

Joint Cognition
Managing tasks
(Shared) Goal Setting

Main Functions

- **Directive**
- **Task generative**
- **Energizing**

### Treatment Plan

### Survivorship Plan

### Advance Directives

Joint Cognition

Managing tasks

Motivating (e.g.) back-up behavior
(Shared) Goal Setting
Putting team members on the same page

<table>
<thead>
<tr>
<th>Primary Care</th>
<th>Patient</th>
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<tbody>
<tr>
<td>Oncology Services</td>
<td>Caregiver</td>
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<table>
<thead>
<tr>
<th>Field</th>
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<td>DOB</td>
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<tr>
<td>Age at diagnosis</td>
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<td>Type of cancer</td>
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<td>Stage</td>
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<td>Hereditary family history</td>
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<td>Surgery</td>
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<td>Hormonal therapy</td>
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<td>Other treatments</td>
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<td>Date of last treatment</td>
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<td>Date of next oncology appointment</td>
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<td>Date of next primary care appointment</td>
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<td>Date of next caregiver appointment</td>
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</table>

The table above provides a brief record of major aspects of breast cancer care, including patient history or comprehensive record of interest.
(Shared) Goal Setting
Over time

- Treatment
- Post-treatment
- Survivorship
Questions for Discussion

1. How well do the team concepts translate?
   1.1. Semantic nuances
   1.2. Contextual implications
   1.3. Translatable to clinical goals, objectives

2. What are the implications for intervention?
   2.1. System redesign
   2.2. Tools, aids, protocols
   2.3. Training

3. What are the clear next steps for research?
   3.1. Biggest problems to solve
   3.2. Sequencing of questions; first things first