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Atlas of Instruments to Measure Team-based Primary Care

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Disclosures

- This research was conducted under contract to the Agency for Healthcare Research and Quality (AHRQ), Contract No. HHSA 290 2010 00004I, Task Order #5, “*Developing a Foundation and Framework for Team-based Care Measures in Primary Care*” Rockville, MD. The authors of this presentation are responsible for its content. No statement may be construed as the official position of the Agency for Healthcare Research and Quality of the U.S. Department of Health and Human Services.
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Our Project Team

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Expert Panel

- **Diane Cardwell, NP, PA, MPA**, VillageMD
- **Jody Hoffer Gittel, PhD**, Brandeis University's Heller School
- **Ben Miller, PsyD**, Univ. of Colorado Denver School of Medicine
- **Sally Okun, RN, MMHS**, PatientsLikeMe
- **Raymond F. Palmer, PhD**, Univ. of Texas Health Science Center
- **Eduardo Salas, PhD**, Univ. of Central Florida's Inst. for Simulation
- **Ronald Stock, MD, MA**, Oregon Health & Sciences University
- **Melissa Valentine, PhD**, Stanford Univ. Center for Work, Tech & Org
- **Sheri Ver Steeg, RN**, Mercy Clinics, Inc.
- **Becky Yano, PhD, MSPH**, UCLA School of Public Health, VA HSR&D



Background

- Increasing recognition that successful primary care redesign efforts (e.g., medical home) will require a high-functioning primary care team
- Accumulating evidence that effective teams are associated with better patient outcomes
- Growing agreement on attributes of effective team care
- Has been progress toward developing instruments
- Since research, evaluation and QI can help advance *effective* team-based care in primary care, instruments to support these activities are critical.



Objectives

- **Develop a theoretically-grounded conceptual framework for measurement of team-based primary care**
- **Conduct an environmental scan to identify and assess instruments to measure teamwork in primary care**
- Create a publicly-available, web-based atlas or inventory of instruments
- Identify gaps in the measurement of team-based primary care



IOM Definition of Team-Based Care

- “...the provision of health services to individuals, families, and/or their communities by at least two health providers who work collaboratively with patients and their caregivers-to the extent preferred by each patient-to accomplish shared goals within and across settings to achieve coordinated, high-quality care.”

— Mitchell, P., M. Wynia, R. Golden, B. et al. 2012. Core principles & values of effective team-based health care. Discussion Paper, Institute of Medicine, Washington, DC. .



Operational Definition of a Team

- “A team is a collection of individuals who are inter-dependent in their tasks, who share responsibility for outcomes, who see themselves and who are seen by others as an intact social entity embedded in one or more larger social systems (for example, business unit or the corporation) and who manage their relationships across organizational boundaries.”
 - ▶ Cohen SG, Bailey DE. What makes teams work: Effectiveness research from the shop floor to the executive suite. *J Manage* 1997;23:239-290.



Conceptual Framework

- Developed and refined through lit. review and expert input
- Uses an “*Input-Mediator-Output-Input (IMOI)*” configuration that is iterative and dynamic in nature
 - ▶ **Inputs:** precursors or pre-conditions for teams to exist
 - ▶ **Mediators:** processes that occur within the team, or enablers of effective teamwork; mediators were the focus of this project. There are 4 mediator domains in the framework:
 - Cognitive
 - Affective/relational
 - Behavioral
 - Leadership
 - ▶ **Outputs** are the results of effective teamwork in primary care

Mediators:

Inputs:

Internal to Organization:

Leadership:

- inclusive
- psychological safety

•Team composition:

- size
- diversity of ideas
- diversity of skills
- diversity of knowledge
- prior training/experience
- turnover/stability

•Patient population needs

- (demand & workload)

•The “Built” environment

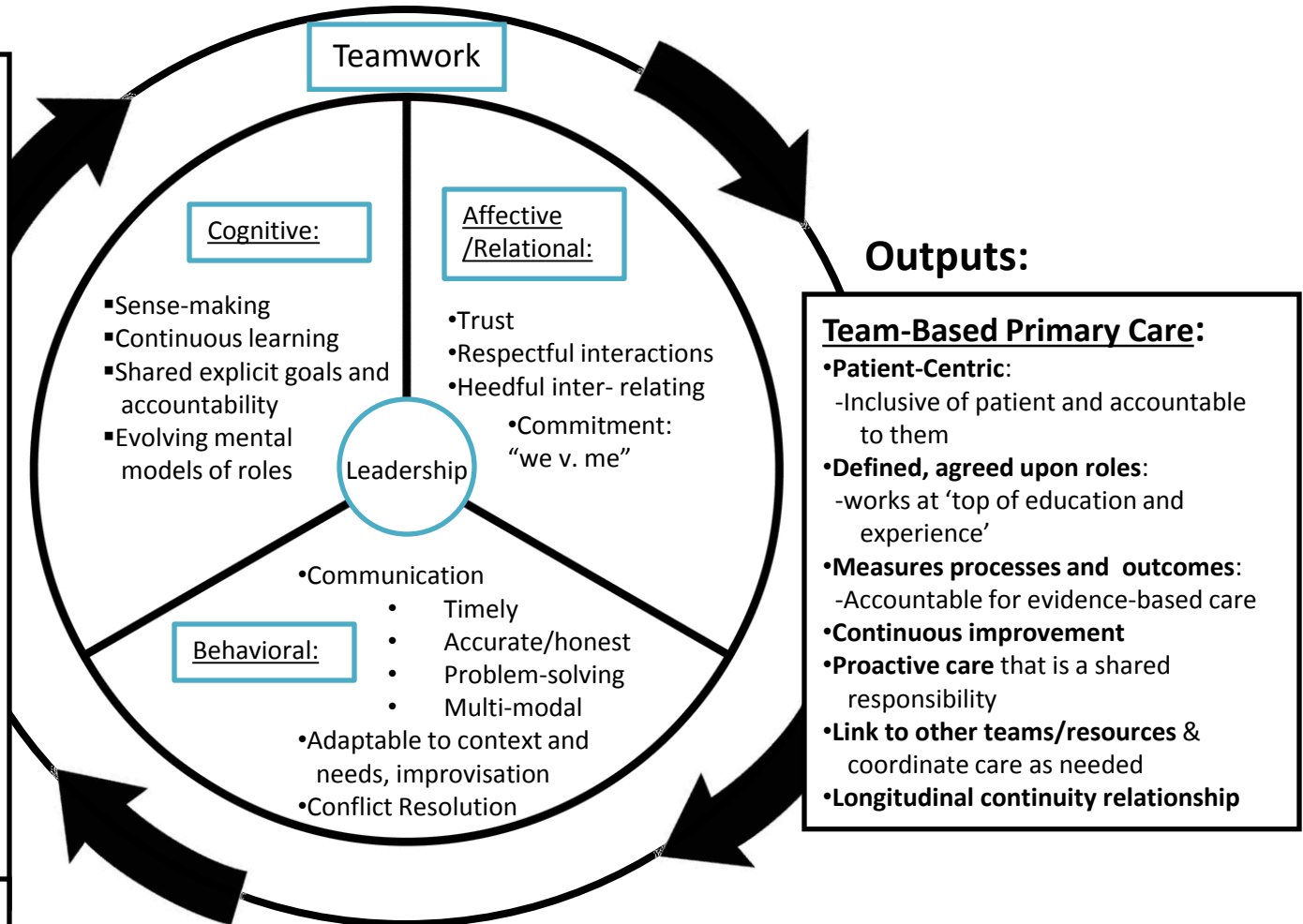
- (space and co-location)

•QI Infrastructure

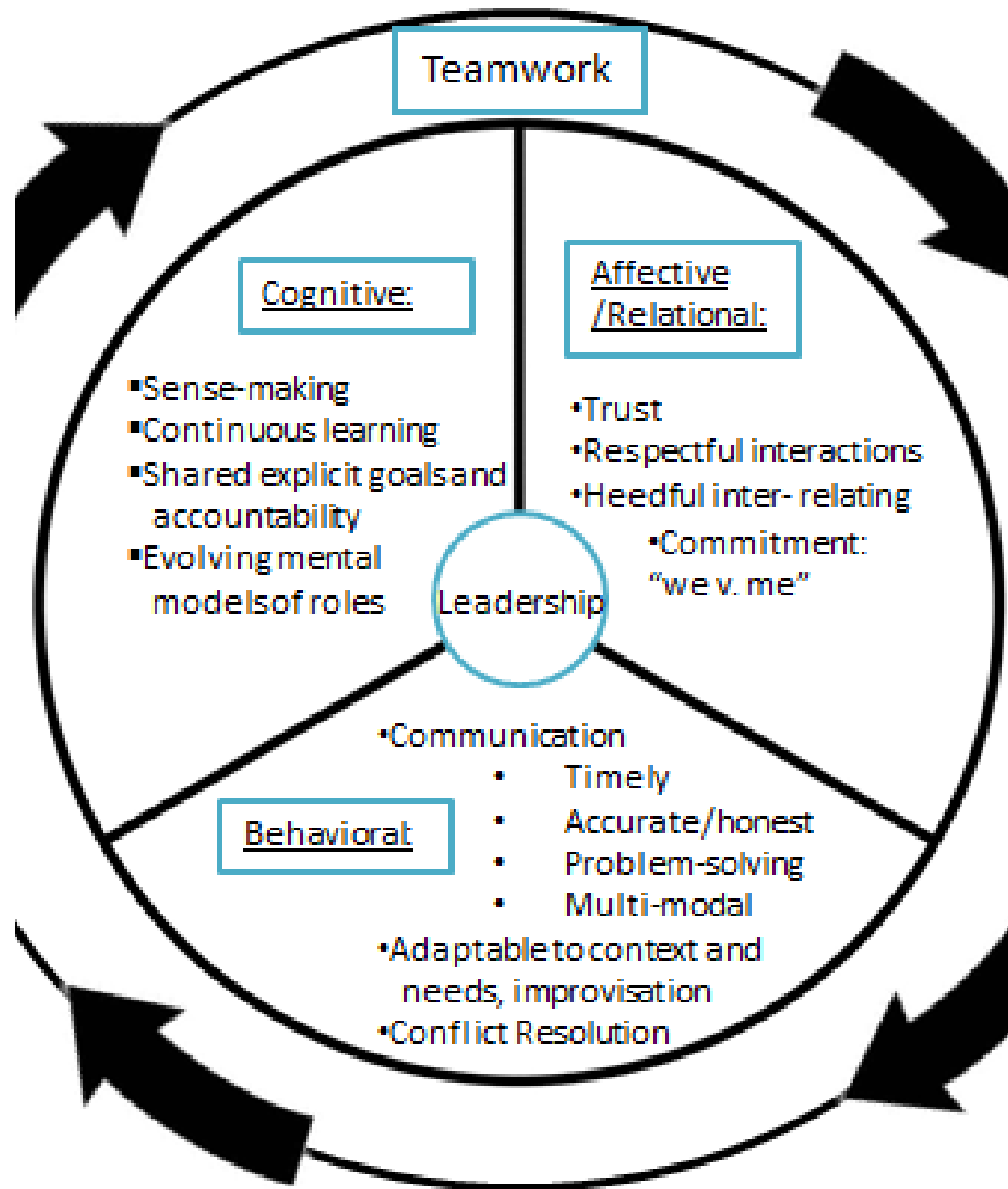
- Health IT capacity
- Time for reflection & conversations
- Internal expertise with a specific QI method
- External expertise: QI consultants or practice facilitators

External to Organization:

- Local Context: job market, workforce
- Financing/Payment Models
- Health Policy Environment (e.g. licensure policies)



Mediators:





Definitions, References and Examples

Concept	Definition	References	TeamStepps Video
Cognitive Domain			
Sense-making	Effective teams actively consider tasks, interactions and the environment within which they take place to help all team members gain a deeper understanding of how these factors relate to each other, for the purposes of both problem-solving AND improving shared goals and vision.	<ul style="list-style-type: none"> • Weick (1995) • McDaniel (2007) • Jordan et al. (2009) 	Leadership: Note how the change in environment, the absence of the triage nurse on a busy day, forces the team to look for a new workflow to assure that the problem is addressed and patients get good care.
Continuous Learning	Effective teams engage in continuous learning by regularly (and in the moment) collaborating to incorporate new understandings, information, data, and skills to optimize care delivery.	<ul style="list-style-type: none"> • Jordan et al. (2009) • Leykum et al. (2011) 	Leadership: Note how the huddle at the start of the day generated a collaborative experiment and how the experience of the new workflow created an agreed upon alternative model for triage.



Narratives

- **Four brief vignettes to exemplify constructs:**

Esperanza felt like something was different about Mrs. Suarez when she checked into her appointment at Grandview Health Clinic today. She didn't greet Esperanza with her usual cheer. In fact, she had scarcely made eye contact. When she asked about her family, Mrs. Suarez had answered so softly, Esperanza didn't hear her reply. Dr. Cardenas was running a little late, but Esperanza caught him as he came out of an exam room. "Mrs. Suarez doesn't seem herself today. She seems sad or troubled. I'm concerned about her. I think we should get her in to see a behavioral health provider during the visit. I'll check Rosanne's schedule for the morning and send her an instant message prompt to see Mrs. Suarez after our visit if she's available." Dr. Cardenas thanked Esperanza. He had learned from prior experience to trust Esperanza's observations, and if Roseanne, the behavioral health specialist, were alerted right now she might be able to see Mrs. Suarez today.

Constructs: Heedful interrelating, Timely communication, Adapting to the needs of the patient, Shared explicit goals, Trust, Working mental model of team roles, Multimodal communication and Adapting flexibly to changing situations



Environmental Scan

- Conducted an environmental scan
 - ▶ Searched peer-reviewed & gray literature (>200 articles), measures databases, expert panel
- Mapped items in instruments to the *mediators* in the framework to determine relevance
- 48 instruments met inclusion criteria
 - ▶ Potential relevance to measure primary care teams
 - ▶ Some testing or psychometric data



Results: Instrument-Level

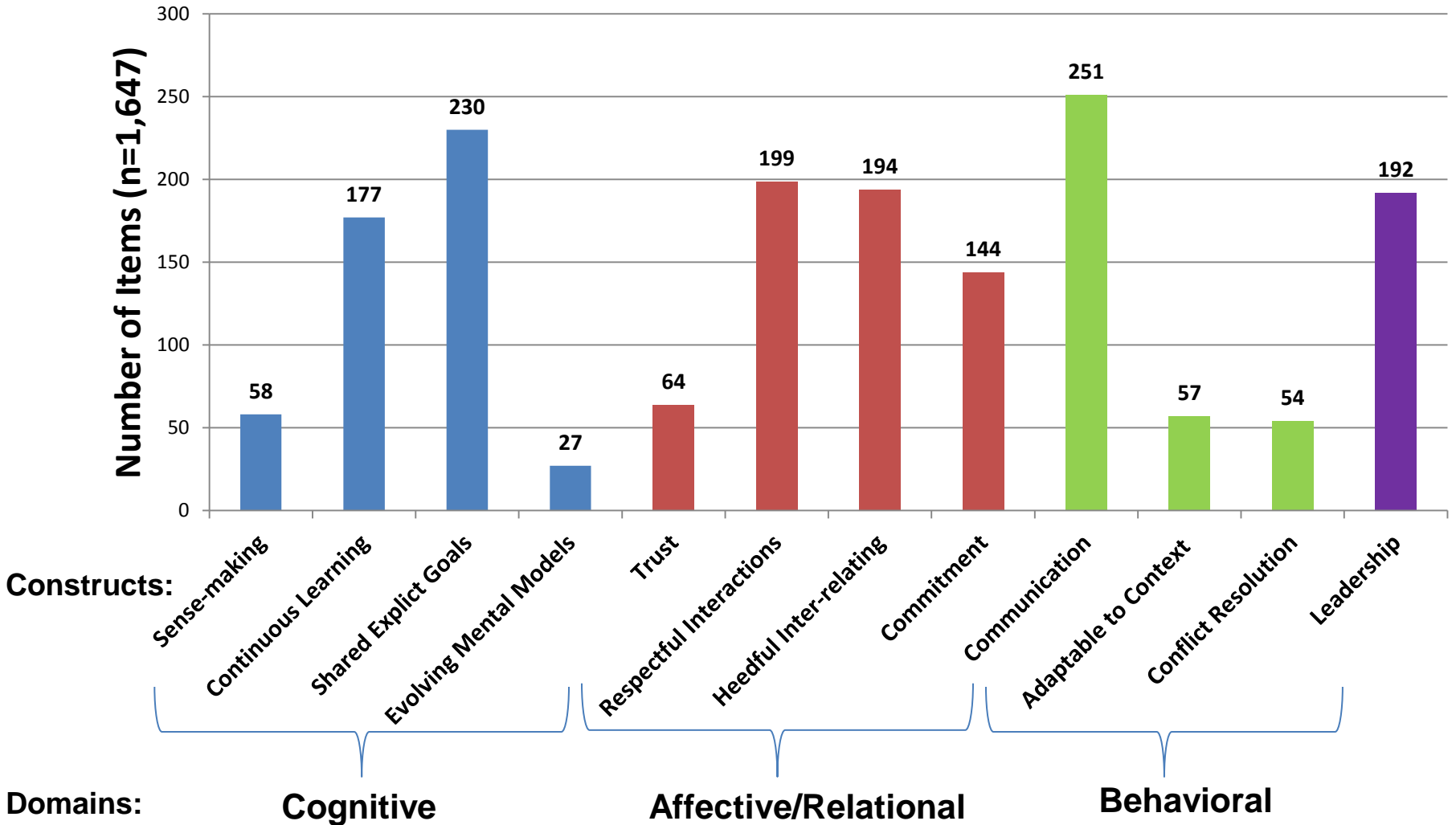
Instrument Characteristics (n=48)

Instrument type	#
Survey	44
Observational checklists	4
Settings	
Health care-outpatient	11
Health care-inpatient	15
Unspecified health care	4
Non-health care/unspecified	18
Total number of items in instrument	
Range	6-94
Mean	35.5
Median	28.5

Sample / respondents	#
Physicians	14
Registered nurses	12
Health care administrators	9
Nurse practitioners	8
Allied health professionals	7
APRNs or LPNs	4
Pharmacists	3
Health care trainees/students	3
Patients	1
Non-health care	16

Results: Item-Level

Number of Items by Mediator Construct across 48 Instruments





Web-Based Atlas of Instruments

- A searchable database of 48 instruments to measure team-based primary care
 - ▶ Can search instruments on key characteristics
- A summary for each instrument is provided
- Coming soon to ahrq.gov (Fall 2014)



QUESTIONS?