The presentation will begin shortly

Process of Cancer Care Cyber Discussion Series
Process of Care Research Branch

Division of Cancer Control and Population Sciences/Behavioral Research Program

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Improving The Process of Cancer Care

Session 3 of a 5 part series

Process of Care Research Branch

Division of Cancer Control and Population Sciences/Behavioral Research Program

Stephen Taplin MD, MPH, Veronica Chollette RN,

Erica Breslau PhD, Sarah Kobrin PhD,

Heather Edwards PhD, Miho Tanaka PhD, Andrew Widener, Pranav Kaul, Andrew Jdaydani

Series Purpose – for NCI

- Solicit opinions from three sectors of the community regarding problems in the quality of cancer care
  - Providers, Researchers, Health Care Purchasers
- Identify potential research topics that might address those problems
- Focus the research agenda of PCRB upon major underlying factors affecting the processes of cancer care.

For Participants

- Understand the perspectives of three communities with respect to problems in cancer care delivery
- Learn conceptual, analytic, and practical approaches to understanding and addressing problems in cancer care delivery
- Contribute to the development of NCI's research agenda

Continuing the Discussion

November 5, 2014, 2:00 PM - 3:00 PM EST

Research Priorities in Cancer Care Teams Research

Dr. Eduardo Salas

July 1, 2015, 2:00 PM - 3:00 PM EST

Team Cognition: Understanding the Factors That Drive Process and Performance

Dr. Steve Fiore

To register, go to: http://dccps.nci.nih.gov/brp/pcrb/cyberseminars.html

If you have questions, contact Veronica Chollette (cholletv@mail.nih.gov)

Review Case Study

Team-Based Primary Care: Building High Functioning Teams & Measuring Outcomes

Richard Ricciardi, PhD, NP

Agency for Healthcare Research and Quality

Acknowledgements

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- Sarah J. Shoemaker, PharmD, PhD
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- Judith Schaefer, MPH
- Meaghan Hunt
- Jessica Levin

Expert Panel:

- Diane Cardwell, TransforMED
- Jody Hoffer Gittell, Brandeis Univ.
- Ben Miller, Univ. of Colorado
- Sally Okun, PatientsLikeMe, Inc.
- Ray Palmer, Univ. of Texas Health Science Center
- Eduardo Salas, Univ. of Central Florida
- Ron Stock, Oregon Health & Science Univ.
- Sheri ver Steeg, Mercy Clinics, Inc.
- Melissa Valentine, Stanford Univ.
- Elizabeth Yano, UCLA & VA HSR&D

Disclosures

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Objectives

Provide overview of AHRQs work on team-based care measurement

- 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

Case presentation and discussion

Background

- Research on teams is available from other sectors
- Accumulating evidence that effective teams are associated with better patient outcomes
- Increasing recognition that successful primary care redesign efforts (e.g., medical home) will require a high-functioning primary care team
- Since research, evaluation and QI can help advance effective team-based care in primary care, instruments to support these activities are critical
- Recent progress toward developing tools and instruments to measure these effective team attributes
- To ensure teams are effective, teams should be observed or measured on the extent to which they demonstrate the requisite attributes.
- Growing agreement on attributes of effective team-based care
- Education has similarly been evolving towards interprofessional education

Background References

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10. Wagner EH. The role of patient care teams in chronic disease management. *BMJ*. 2000;320(7234):569–572.
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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. .

IOM Definition of Primary Care

Primary care is the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community.

- National Research Council. Defining Primary Care: An Interim Report. Washington, DC: The National Academies Press, 1994.

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.

Methods

- Developed a conceptual model
  - 12 *Constructs* grouped into 3 main *Domains,* plus "Leadership"
- Conducted an environmental scan
  - Reviewed 3296 abstracts + 45 articles suggested by experts
    - Identified 221 potential sources, from which 129 full-text instruments were available
    - 64 instruments selected to map (related to teams and adaptable to primary care)
- "Mapped" the items in each instrument to the *mediators* or *enablers* of team care in the conceptual model
  - Two researchers systematically 'mapped' each item within an instrument to the *mediator/enabler* constructs in the model
  - Then reconciled by experts in team care
  - Each item could map to maximum of two constructs
- 57 instruments retained after mapping exercise

Conceptual Framework

- Developed and refined through a literature review and with input from the expert panel
- Framework 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

Conceptual Model of Team Care

Inputs:

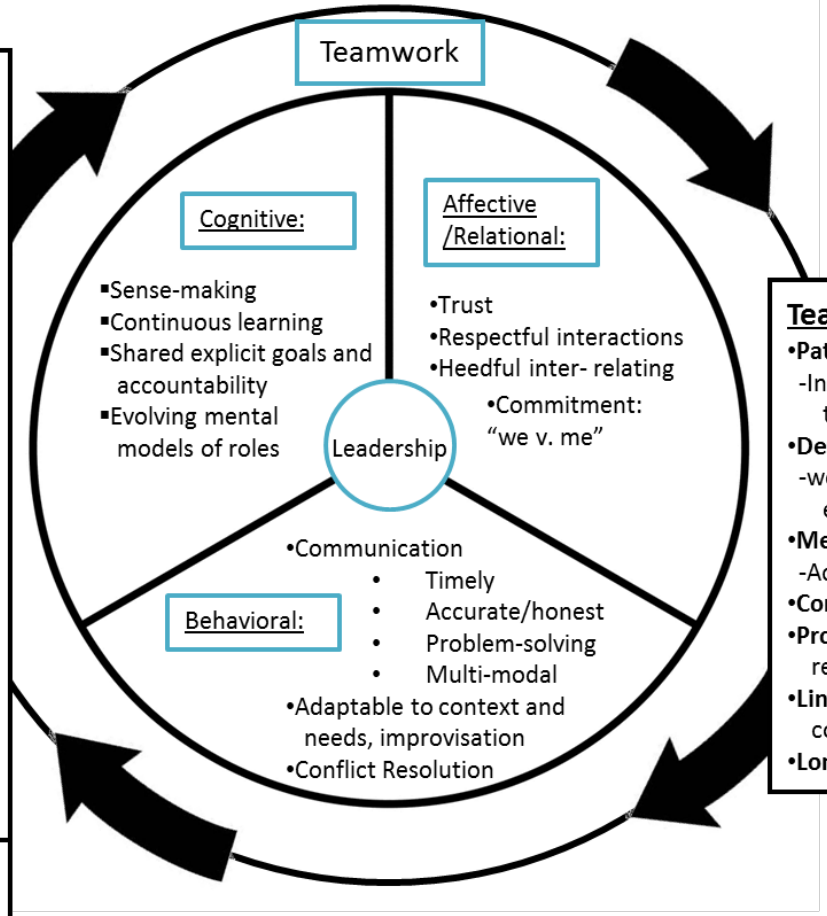
Internal to Organization:

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:



Outputs:

Team-Based Primary Care:
- **•Patient-Centric:**
  - -Inclusive of patient and accountable to them
- **•Defined, agreed upon roles:**
  - -works at 'top of education and experience'
- **•Measures processes and outcomes:**
  - -Accountable for evidence-based care
- **•Continuous improvement**
- **•Proactive care** that is a shared responsibility
- **•Link to other teams/resources** & coordinate care as needed
- **•Longitudinal continuity relationship**

Shoemaker SJ, Fuda K, Parchman M, Schaefer J, Ricciardi R. A Review of Instruments to Measure Communication in Team-Based Care. Podium Presentation. International Conference on Communication in HealthCare. Montreal, Quebec, Canada. October 1, 2013.

Concept	Definition	References
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 purpose of both problem-solving AND improving shared goals and vision.	Weick KE (1995) McDaniel RR (2007) Jordan ME, et al (2009)
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.	Jordan ME, et al (2009) Leykum LK, et al. (2011)
Shared Explicit Goals and Accountability	Effective teams actively adopt and agree upon a set of goals and objectives with clearly articulated criteria for achievement, which motivates them as a team and measures their progress.	Xyrichis A, Lowton K. (2008) Mitchell P, Wynia M, Golden R, et al.(2012)
Evolving Mental Models of Roles	Effective teams maintain an open mind to new ideas and perspectives that they apply to their role and understanding of others roles and relationships, allowing roles to change over time.	Bodenheimer T. (2007)

Weick KE . Sensemaking in organizations. Thousand Oaks, CA: Sage Publications 1995.
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Jordan ME, et al. The role of conversations in health care interventions: enabling sense-making and learning. *Implement Sci* 2009;4:15.
Leykum LK, et al. Reciprocal learning and chronic care model implementation in primary care: results from a new scale of learning. *BMC Health Serv Res* 2011;11:44.
Xyrichis A, Lowton K. What fosters or prevents interprofessional teamwork in primary and community care? *Int J Nurs Stud* 2008;140-53.
Mitchell P, Wynia M, Golden R, et al. Core principles & values of effective team-based health care. Discussion Paper, 2012. Institute of Medicine, Washington, DC. www.iom.edu/tbc.
Bodenheimer T. Building teams in primary care. California Health Care Foundation; 2007.

Concept	Definition	References
Affective/Relational Domain		
Trust	Effective teams are able to act in a manner that reflects confidence in the ability and reliability of other team members, are able to be vulnerable by bringing problems to the group for resolution and believe that each team member will strive toward the goals of the group	Ilgen DR, Hollenbeck JR, Johnson M, Jundt D. (2005)
Respectful Interactions	Effective practice teams exhibit honest, self-confident and appreciative interaction, actively seek out and value the roles and opinions of others, freely share opinions that may be unpopular and willingly change their minds in response to new meaning created within the practice	Lanham HJ, et al. (2009) Weick KE, Roberts, KA. (1993)
Heedful Inter-relating	In effective primary care teams, individuals pay attention to the task at hand, the way their roles and actions affect the roles and actions of others, and coordinate their actions to complement those of other team members.	Weick KE, Roberts, KA. (1993) Lanham HJ, et al. (2009)
Commitment	In effective primary care teams, individuals and the group as a whole feel connected to and exhibit a sense of belonging to the team, are dedicated to group goals and values, and exhibit this loyalty to the group by consistently performing their role even in difficult situations.	Ilgen DR, Hollenbeck JR, Johnson M, Jundt D. (2005) Hoegl M, Gemuenden HG. (2001)

Ilgen DR, Hollenbeck JR, Johnson M, et al. Teams in organizations: From input-process-output models to IMOI models. *Annu Rev Psychol* 2005;56:517-543.
Lanham HJ, et al. How improving practice relationships among clinicians and non-clinicians can improve quality in primary care. *Jt Comm J Qual Patient Saf* 2009;35:457.
Weick KE, Roberts, KA. Collective mind in organizations: Heedful interrelating on flight decks. *Adm Sci Q* 1993;38:357.
Hoegl M, Gemuenden HG. Teamwork quality and the success of innovative projects: A theoretical concept and empirical evidence. *Organ Sci* 2001;12:435-449

Concept	Definition	References
Behavioral Domain		
Communication	Effective practice teams keep each other informed with timely and accurate information, using multiple and appropriate modes of information transfer that facilitate problem solving.	Gittell JH, Seidner R, Wimbush J. (2010) Hoegl M, Gemuenden HG. (2001)
Adaptable to Context and Needs, Improvisation	Effective practice teams adapt established routines to provide for unforeseen or unusual circumstances by flexible improvisation.	Weick K. (1998) Arrow H, McGrath JE, Berdahl JL. (2000) McDaniel RR Jr (2007)
Conflict Resolution	Effective practice teams develop a relational capacity to address conflict by openly discussing disagreements or tension among team members using an effective resolution process	Lanham HJ, et al. (2009) Jordan ME et al. (2009)
Leadership Domain		
Leadership	In effective practice teams leadership promotes high quality care by encouraging each team member to develop and express new ideas, encouraging their engagement in testing them, and guiding the team towards improvement.	Edmondson, A. (2003) Nembhard IM, Edmondson AC. (2006)

Gittell JH, Seidner R, Wimbush J. A relational model of how high-performance work systems work. *Organ Sci* 2010;21:490-506.
Weick K. Improvisation as a mindset for organizational analysis. *Organization Science* 1998;9:543-545.
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Edmondson, A. Speaking up in the Operating Room: How Team Leaders Promote Learning in Interdisciplinary Action Teams. *J Manage Studies* 2003; 6: 1419–1452.
Nembhard IM, Edmondson AC. Making it safe: the effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams. *J Organiz Behav*. 2006;27:941-966.

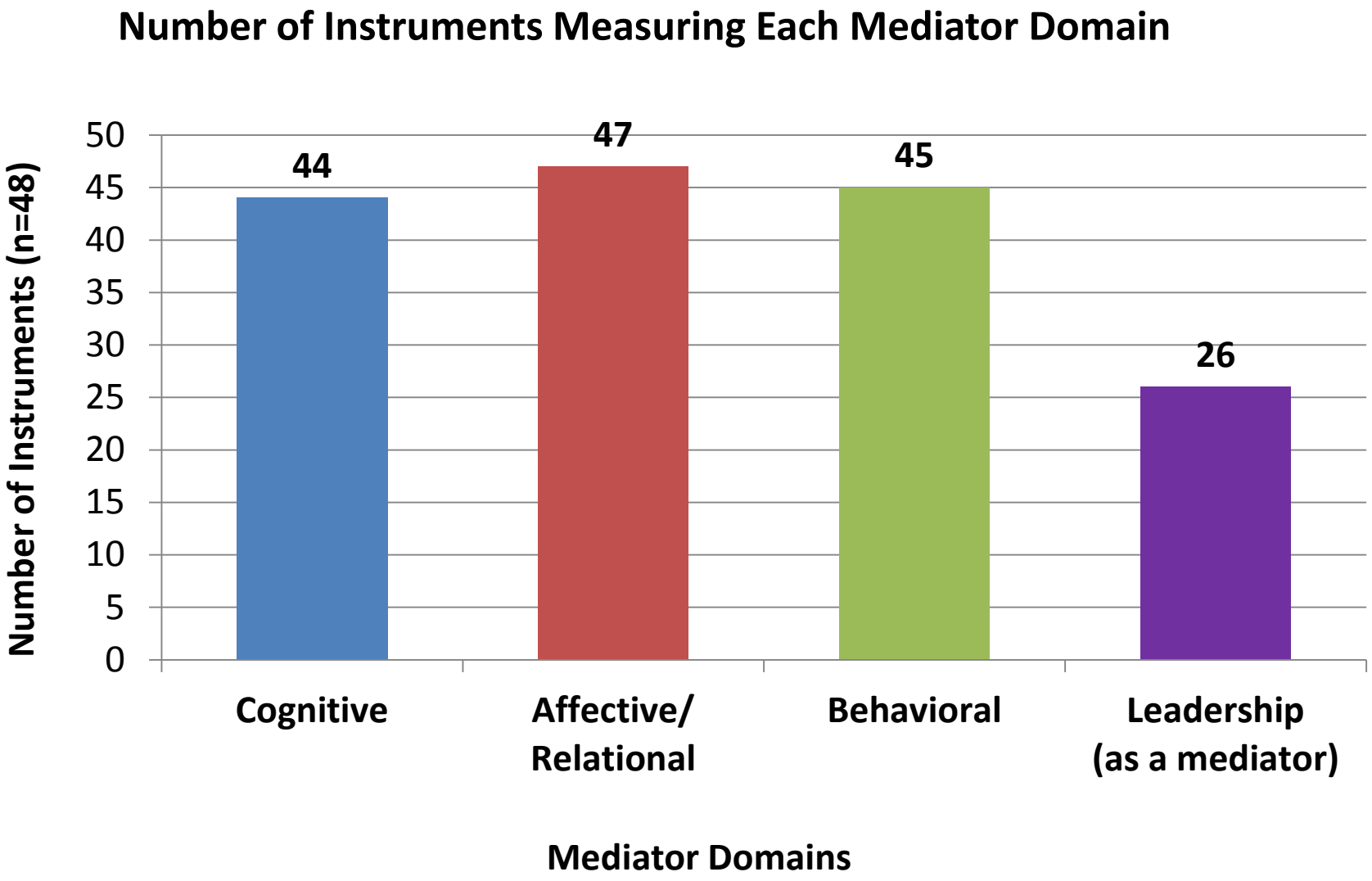
Results: Instrument-Level

Instrument Characteristics (n=48)

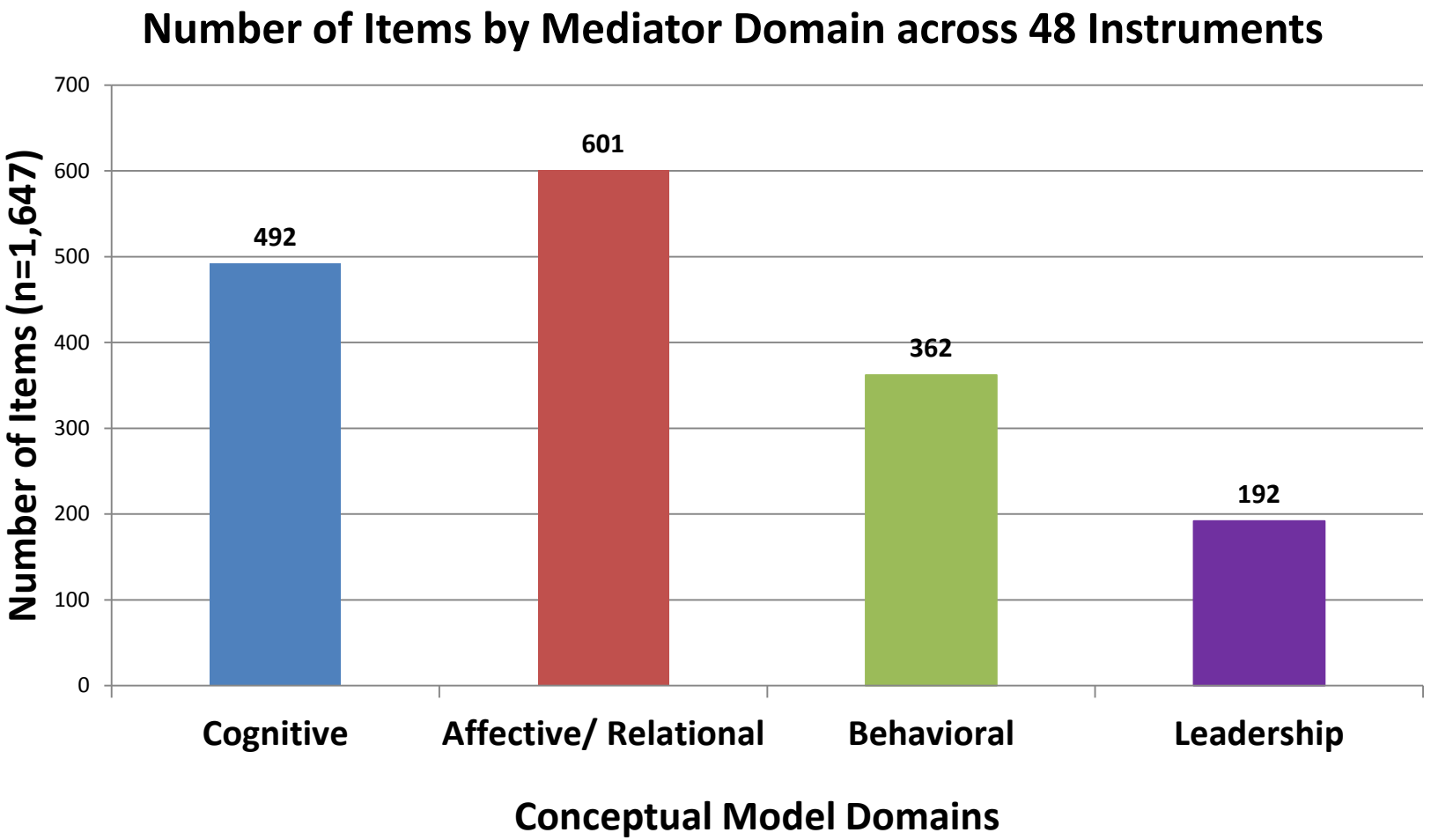
Instrument type	**#**
Survey	44
Observational checklists	4
Settings	
Health care-outpatient	11
Health care-inpatient	15
Unspecified health care	4
Non-health care/unspecified	18
Total number of items in instrument	
Range	6-94
Mean	35.5
Median	28.5

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

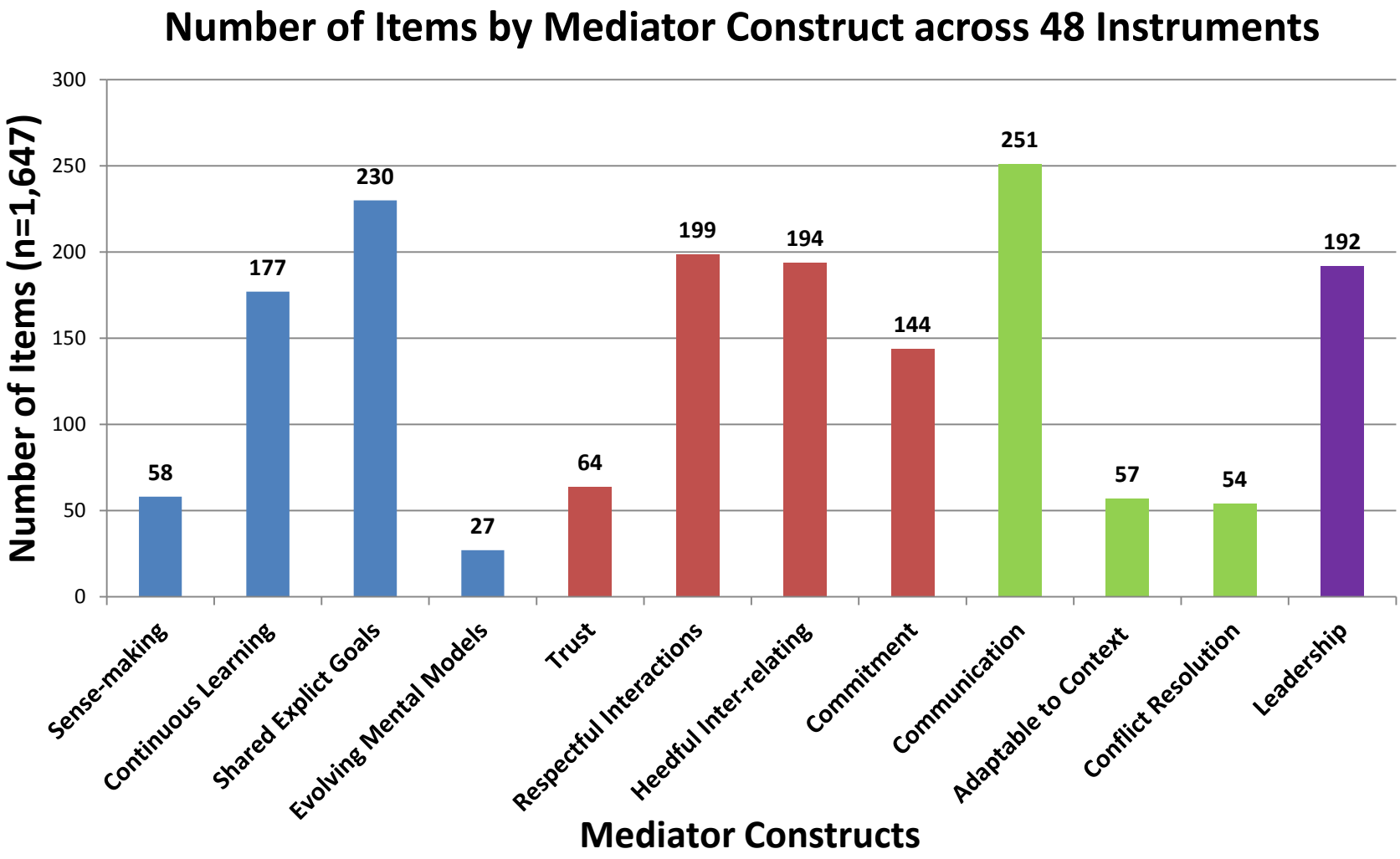
Results: Instrument-Level



Results: Item-Level



Results: Item-Level



Gaps in Measurement

- Identified gaps in measurement of team-based primary care by:
  - Examining extent to which instruments mapped to the conceptual framework
  - Soliciting structured input from individual expert panel members and stakeholders
  - Discussing the input received with the expert panel

Gaps in Measurement

- Highlights of Key Gaps:
  - Need to incorporate patient perspective into team-based primary care assessments, although more conceptual work is needed before instrument development occurs
  - Address measurement challenges associated with aggregating at the unit-level from individual clinicians, particularly when there are few clinicians in a practice
  - Support non-researchers who wish to use the instruments by providing guidance and training (e.g., how to approach, use and interpret results)

Publish a 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
- A resource to support measurement of attributes of effective teamwork to ultimately advance and improve team-based care primary care
- Coming soon to ahrq.gov (Fall 2014)

Discussion

- Majority of instruments were from health care, though some from other sectors may be useful to assess effective team-based primary care
- Some instruments will require some adaption (e.g., wording changes) in order to use in primary care setting
- Most instruments address multiple Conceptual Model constructs, but with differing degrees of emphasis
  - None measured all of them
- Distribution of instruments and items across constructs and domains varied only slightly

Question/Comments?

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