



Center for Public Health
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The clinical sustainability assessment tool (CSAT):

Assessing sustainability in clinical medicine settings

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Douglas A. Luke, Sara Malone, Kim Prewitt,
Rachel Hackett, John Lin



Washington University in St. Louis

Outline

- Why sustainability?
- Why clinical sustainability?
- Clinical sustainability framework & tool development
- Testing the tool



Why sustainability?



Program Sustainability Framework

...the ability to maintain public health programming and its benefits over time.



Sustaintool.org


Program Sustainability Assessment Tool

Understand Assess Plan Resources About Us Services Login


Welcome to the online Program Sustainability Assessment Tool.

Let us help you rate the sustainability capacity of your program across a range of factors.


[GET STARTED](#)

- 


1. Understand

Understand the factors that influence a program's capacity for sustainability.
- 

2. Assess

Use the Program Sustainability Assessment Tool to assess your program's capacity for sustainability.
- 

3. Review

View results from your assessment as a Sustainability report.
- 

4. Plan

Develop an Action Plan to increase the likelihood of sustainability.



Why clinical sustainability?

Why clinical sustainability tools are necessary

- Shift from policies and programs to practices and procedures
- Integration with other clinical practice activities
- High reliance on clinical and frontline staff
- Less reliant on external stakeholders
- More reliant on technical supports
- Positive outcomes are important and can be seen sooner



<https://sustainability.ucsf.edu/3.686>



Definition

Clinical sustainability

The ability of an organization to maintain structured clinical care practices over time and to evolve and adapt these practices in response to new information



Clinical sustainability framework & tool development

CSAT Development Process

- Initial review
 - Literature
 - Review of existing PSAT framework and instrument domains
- Concept Mapping
 - Expert input
 - Domain and potential item identification
- Draft instrument development
- Draft instrument pilot
- Psychometric analyses
- Final instrument development and dissemination










Concept Mapping: Brainstorming

For practices in clinical care to successfully continue over time, they need...

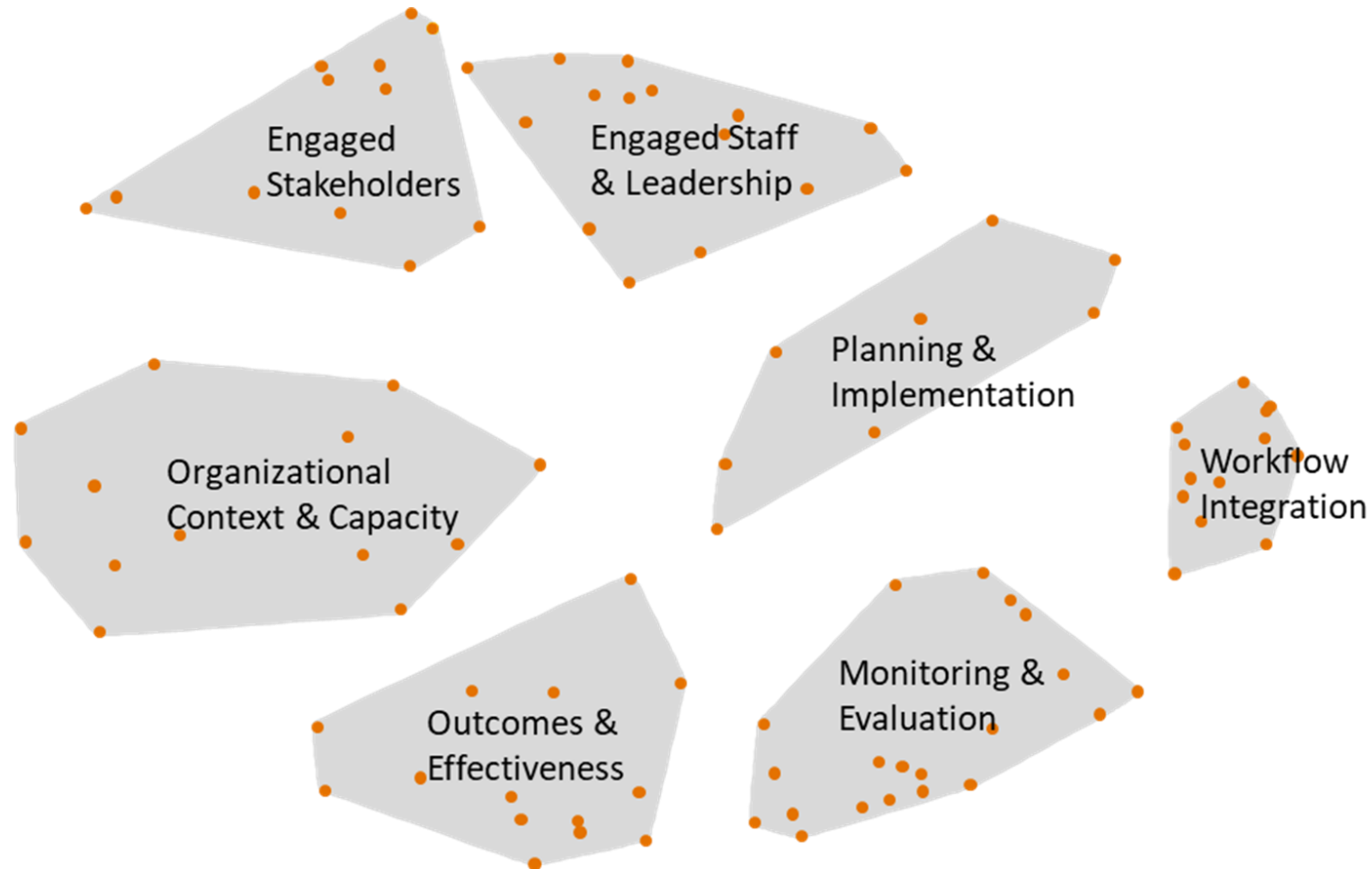
- **42** participants
- **230** statements generated

Concept Mapping Steps

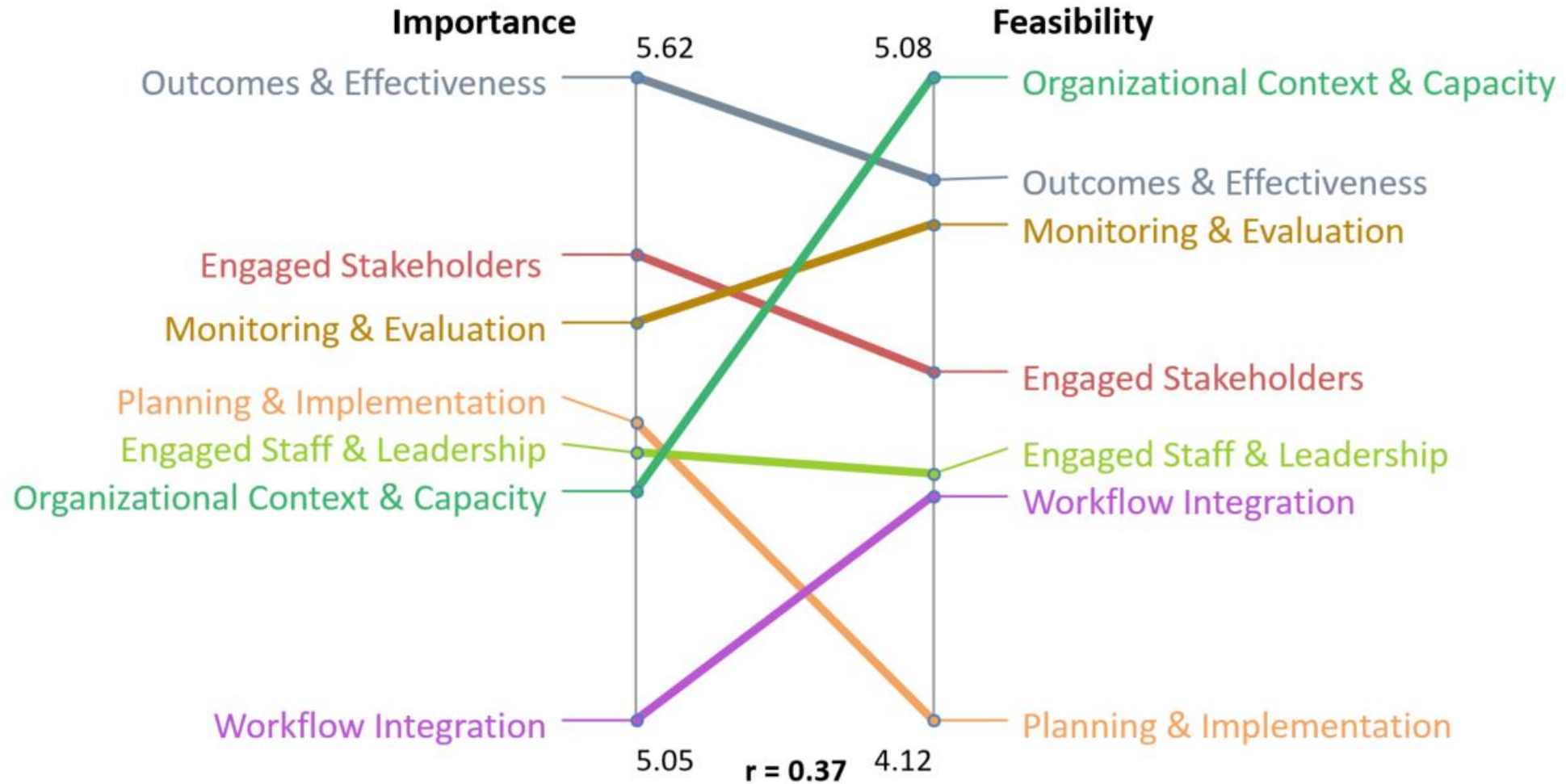
-  Literature Review
-  Brainstorm
-  Sorting
-  Rating
-  Analysis of Structure
-  Cleaning/Creation of Measure
-  Testing/Refinement



Concept Mapping: Sorting & Mapping



Concept Mapping: Ratings



CSAT Design

- 7 domains
- 7 items in each domain
- Quick to complete
- Easy to use
- Used by evaluators and researchers
- Respondents indicate the extent to which a practice has or does each thing



CSAT Structure

CLINICAL SUSTAINABILITY ASSESSMENT TOOL

I am assessing the sustainability capacity for this clinical practice:

Engaged Staff and Leadership: Having supportive frontline staff and management within the organization

	To little or no extent		To a very great extent					Not able to assess
1. The practice has buy-in from all multiprofessional team members.	1	2	3	4	5	6	7	NA
2. The practice engages stakeholders throughout the process.	1	2	3	4	5	6	7	NA
3. Clinical champions of the practice are respected and supported.	1	2	3	4	5	6	7	NA
4. The practice has support from clinical team leaders.	1	2	3	4	5	6	7	NA
5. The practice has engaged, ongoing champions.	1	2	3	4	5	6	7	NA
6. The practice has a leadership team made of a multiprofessional partnership.	1	2	3	4	5	6	7	NA
7. The practice has team-based collaboration and infrastructure.	1	2	3	4	5	6	7	NA

Monitoring and Evaluation: Assessing your practice to inform planning and document results

	To little or no extent		To a very great extent					Not able to assess
1. The practice has measurable process components, outcomes, and metrics.	1	2	3	4	5	6	7	NA
2. Evaluation and monitoring of the practice are reviewed on a consistent basis.	1	2	3	4	5	6	7	NA
3. The practice has clear documentation to guide process and outcome evaluation.	1	2	3	4	5	6	7	NA
4. Practice monitoring, evaluation, and outcomes data are routinely reported to the clinical care team.	1	2	3	4	5	6	7	NA
5. The practice process components, outcomes, and metrics are easily assessed and audited.	1	2	3	4	5	6	7	NA
6. The practice has an automated process or EMR that can easily develop monitoring reports.	1	2	3	4	5	6	7	NA
7. The practice has a designated person responsible for monitoring.	1	2	3	4	5	6	7	NA

7 CSAT Domains

- Engaged leadership and staff
- Engaged stakeholders
- Planning and implementation
- Workflow integration
- Monitoring and evaluation
- Organizational context and capacity
- Outcomes and effectiveness



Tailored Reports

Clinical Sustainability Assessment Report

Example Practice June 11, 2018

Incorporation of new and effective practices into standard care begins with implementation but requires intentional sustainment over time. Healthcare organizations and clinical programs must be aware of how organizational, financial, regulatory, and political factors that affect successful implementation also impact the ability to maintain clinical practices and their outcomes. By understanding, anticipating, and addressing these critical factors, stakeholders can incorporate sustainability planning and practice into their efforts and position themselves for long-term success.

Overall Clinical Sustainability Score

5.1

Domain	Domain Score
Engaged Staff & Leadership	5.3
Engaged Stakeholders	5.3
Monitoring & Evaluation	4.7
Planning & Implementation	4.4
Outcomes & Effectiveness	7.0
Workflow Integration	5.4
Organizational Context & Capacity	3.9

Higher scores indicate greater sustainability capacity
1 = program has this to a little or no extent
7 = program has this to a great extent

Next Steps

- These results can be used to guide sustainability planning for your clinical practice.
- Areas with lower ratings indicate that there is room for improvement.
- Address domains that are modifiable and have data available to support the needed changes.
- Develop longer-term strategies to tackle the domains that may be more difficult to modify.

Average Clinical Sustainability Scores by Domain

Domain	Score
Overall	5.1
Engaged Staff & Leadership	5.3
Engaged Stakeholders	5.3
Monitoring & Evaluation	4.7
Planning & Implementation	4.4
Outcomes & Effectiveness	7.0
Workflow Integration	5.4
Organizational Context & Capacity	3.9

1=little to no extent 7= to a great extent

This is an example report and includes no user data.

Individual Clinical Sustainability Assessment Tool Item Scores

Engaged Staff & Leadership	
The practice has buy-in from all multiprofessional team members	5.0
The practice engages stakeholders throughout the process	6.0
Clinical champions of the practice are recognized and respected	5.0
Engaged Stakeholders	
The practice has support from clinical team leaders	6.0
The practice has engaged, ongoing champions	6.0
The practice has a leadership team made of multiprofessional partnerships	4.0
The practice has team-based collaboration and infrastructure	5.0
Monitoring & Evaluation	
The practice has measurable process components, outcomes, and metrics	6.0
Evaluation and monitoring of the practice are reviewed on a consistent basis	6.0
The practice has clear documentation to guide process and outcome evaluation	4.0
Practice monitoring, evaluation, and outcomes data are routinely reported to the clinical care team	5.0
The practice process components, outcomes, and metrics are easily assessed and audited	5.0
The practice has an automated process or EMR that can easily produce monitoring reports	2.0
The practice has a designated person or persons responsible for monitoring	5.0
Planning & Implementation	
Leadership effectively articulates the vision of the practice to external partners	4.0
The practice clearly outlines roles and responsibilities for all staff	6.0
The reason for the practice is clearly communicated to and understood by all staff	5.0
Staff receive ongoing coaching, feedback, and training	5.0
Practice implementation is guided by feedback from stakeholders	4.0
The reason for the practice is appropriately communicated to patients and families	4.0
The practice has ongoing education across professions.	3.0
Outcomes & Effectiveness	
The practice is evidence-based	7.0
The practice has evidence of beneficial outcomes	7.0
The practice is associated with improvement in patient outcomes that are clinically meaningful	7.0
The practice is clearly linked to positive health or clinical outcomes	7.0
The practice is cost-effective	7.0
The practice is linked to patient and provider satisfaction	7.0
The practice has clear advantages over alternatives	7.0
Workflow Integration	
The practice is built into the clinical workflow.	7.0
The practice has a trigger system built into the workflow and/or EMR.	3.0
The practice is designed to reduce workload burden as much as possible.	6.0
The practice is easy for clinicians to use.	6.0
The practice integrates well with established clinical practices.	6.0
The practice aligns well with other clinical systems (e.g., EMR).	4.0
The practice is designed to be used consistently.	6.0
Organizational Context & Capacity	
Organizational systems are in place to support the various practice needs.	5.0
The practice has administrative staff for supporting clinicians.	1.0
The practice fits in well with the culture of the team.	5.0
The practice has goals that are aligned with the goals of the larger organization.	6.0
The practice has feasible and sufficient resources (e.g., time, space, funding) to achieve its goals.	3.0
The practice has adequate staff to achieve its goals.	4.0
The practice is well integrated into the operations of the organization.	3.0

To pilot the Clinical Sustainability Assessment Tool visit: <https://bit.ly/CSATpilot>

For more information contact:
Sara Malone
Sustainability Project
sara.malone@wustl.edu

Center for Dissemination and Implementation
INSTITUTE FOR PUBLIC HEALTH AT WASHINGTON UNIVERSITY

Center for Public Health Systems Science
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Testing the tool

Pilot Test by the Numbers (N = 126)

Profession	%
Pharmacist	36
Physician	29
Nurse	15
Admin/Support	7
Other	12

Role	%
Bedside Provider	44
Program Leader	22
Leadership	7
Unit Management	5
Other	22

Environment	%
Academic Medical	69
Community Hospital	18
Community Health Center	5
Private Practice	5
Other	9

Setting	%
Inpatient	59
Outpatient	21
Both	20

Patients	%
Adult	53
Pediatric	47



CSAT Usability is Good

- Pilot survey took about 20 minutes to complete
- Good participant reaction
 - 85% agreed that it was *easy to use*
 - 75% felt *very confident* using the tool
 - 90% thought that most people would *learn to use* the tool quickly
 - 69% disagreed that the tool was *unnecessarily complex*
 - Only 35% thought that they would need *support* in order to use the tool effectively



Draft CSAT shows very good reliability

Domain	# of Items	Scale Mean	Scale SD	Alpha
Engaged Staff	7	5.64	0.74	0.85
Engaged Stakeholders	7	5.18	1.16	0.80
Monitoring & Evaluation	7	5.07	0.93	0.92
Planning & Implementation	7	5.04	0.96	0.89
Outcomes & Effectiveness	7	5.96	0.74	0.85
Workflow Integration	7	5.42	0.99	0.88
Organizational Context	7	5.01	1.05	0.88

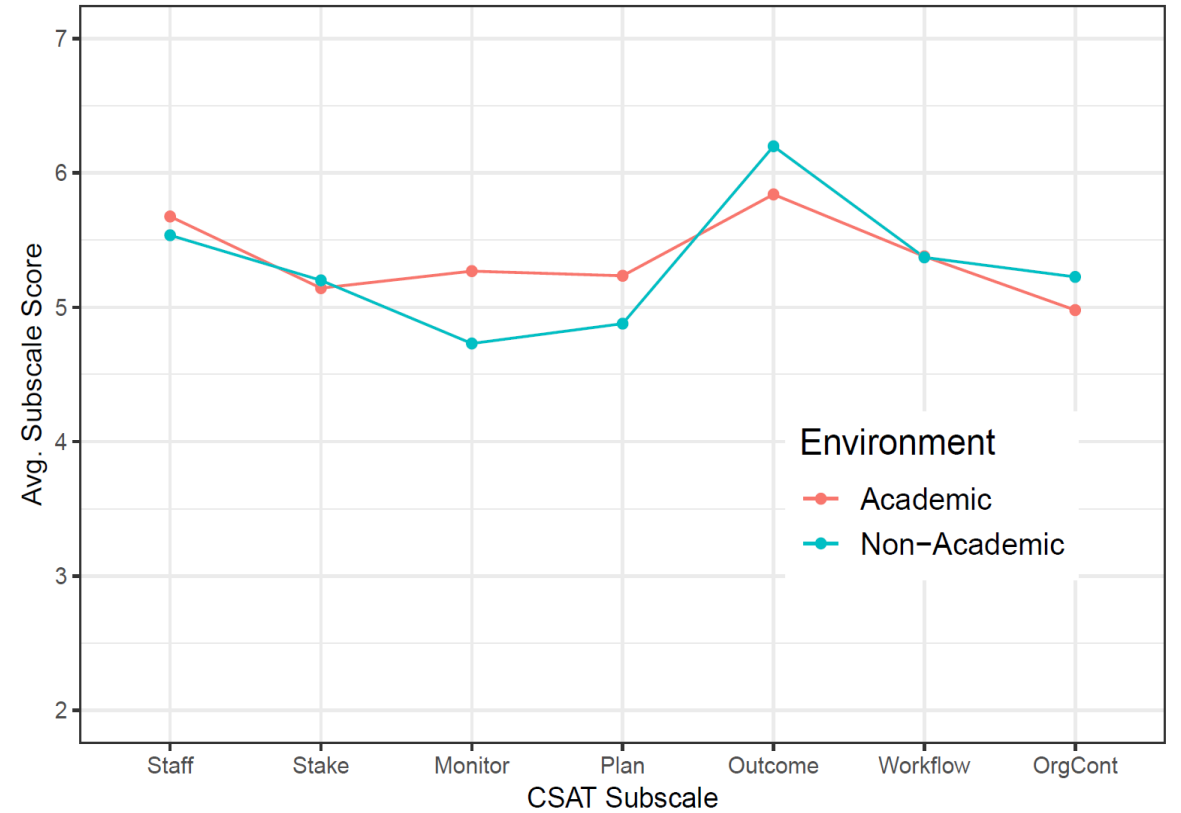
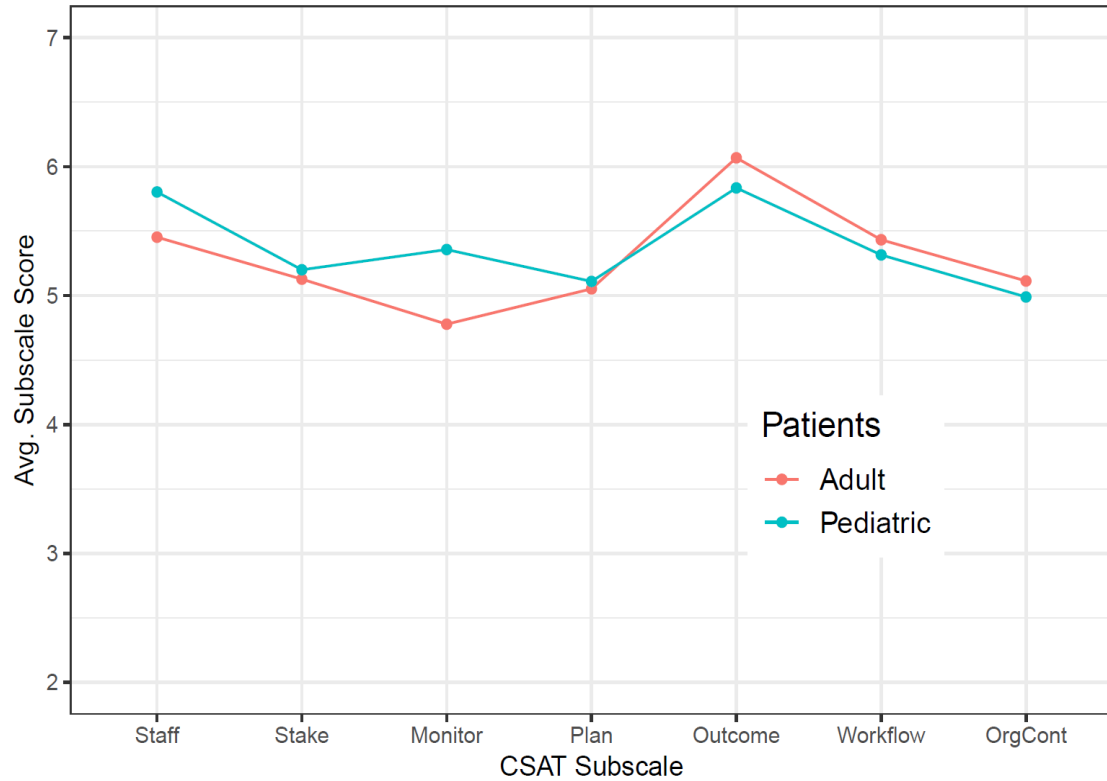


Excellent reliability for even 5 items/scale

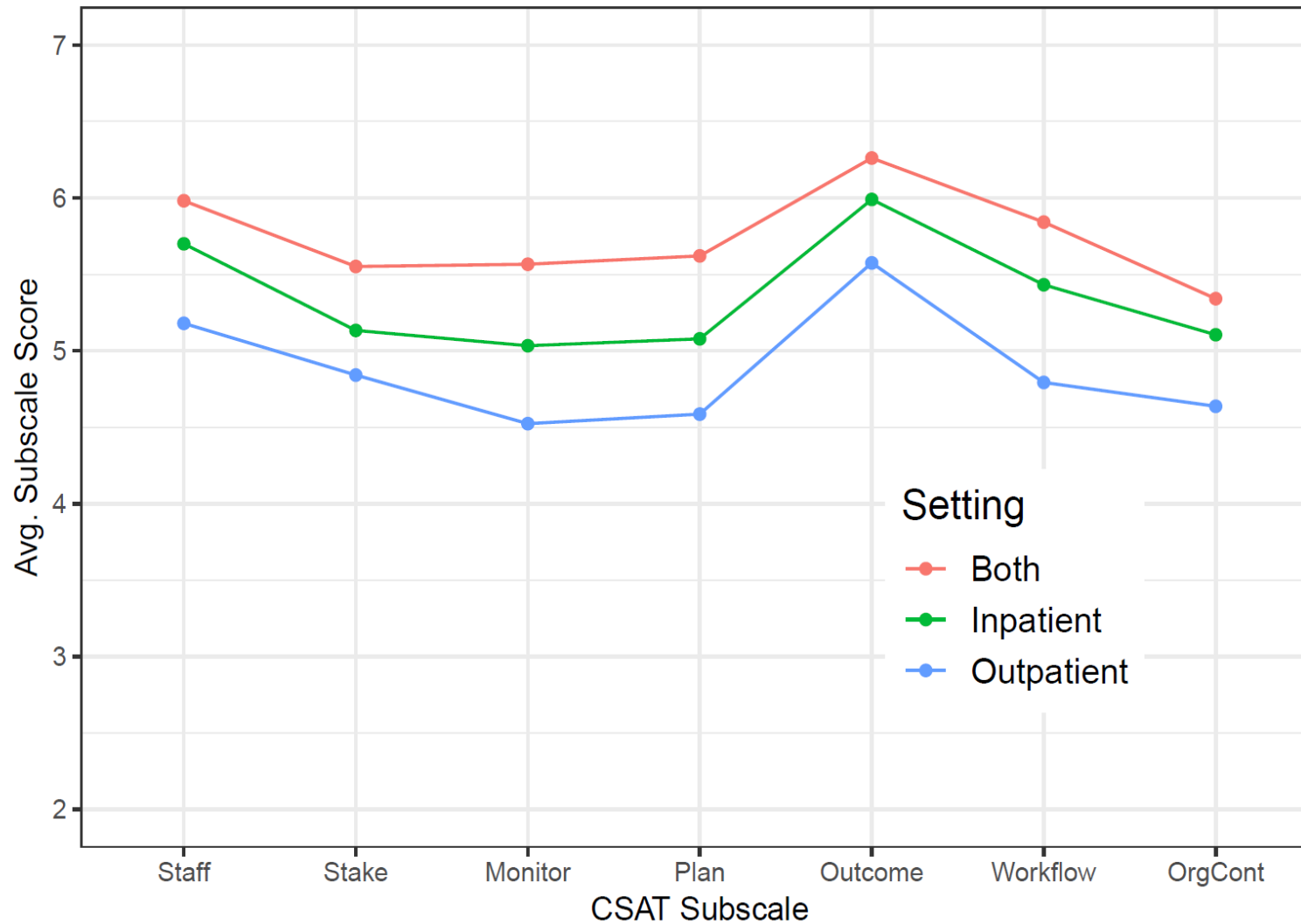
Domain	# of Items	Scale Mean	Scale SD	Alpha
Engaged Staff	5	5.62	0.70	0.84
Engaged Stakeholders	5	5.02	1.16	0.81
Monitoring & Evaluation	5	5.12	0.69	0.94
Planning & Implementation	5	5.18	0.80	0.88
Outcomes & Effectiveness	5	6.03	0.54	0.88
Workflow Integration	5	5.62	0.73	0.88
Organizational Context	5	5.02	0.89	0.87



Some hints of validity...



Some hints of validity...



Want to participate?

<https://bit.ly/CSATpilot>

Please participate in a research study to develop a new tool for clinical use.



Questions & Discussion

Contact Us

Douglas Luke

dluke@wustl.edu

Sara Malone

sara.malone@wustl.edu



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cphss.wustl.edu

cphss@wustl.edu



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