

COHORT TWO

Interprofessional/Communication/Relationships

Bassett Medical Center

Baystate Medical Center

Billings Clinic

Cedars-Sinai Medical Center

Cleveland Clinic Akron General

Cleveland Clinic Main Campus

TriHealth

Aurora Health Care – Cardiology Project

Bassett Medical Center





Bassett Healthcare Network



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NI VII Meeting Three/Storyboard

Utilizing a Multidisciplinary Team to Improve Communication with Patients in the Hospital, as Measured by HCHAPS scores

Russell Moore, M.D., Daphne Monie, PhD, Suzanne Olson, Julie Hall, RN, Omid Shah, MBBS, Kristin Baker, MD, Anjeela Kadel, MBBS, Lintha Shah, MBBS, Phoebe Weiler, Stacy Wicks, RPh, James Dalton, M.D.



Utilizing a Multidisciplinary Team to Improve Communication with Patients in the Hospital, as Measured by HCHAPS scores

Background & Aim

- The reason for undertaking this project is the recognition that our communication with hospitalized patients is below the standard that we desire and our patient satisfaction scores around communication are lower than we believe they should be.
- The National Initiative VII project for Bassett aims to develop a team rounding system on the inpatient hospital Internal Medicine service. The goal is to improve communication among different disciplines on the healthcare team and, more importantly, to improve communication (including consistency in the communication) with our patients.



Utilizing a Multidisciplinary Team to Improve Communication with Patients in the Hospital, as Measured by HCHAPS scores

Methods

- One of the inpatient Internal Medicine teaching teams (Silver team) will change its daily (M-F) rounding schedule. After an hour “table rounds”, the physicians (faculty, senior resident and interns) will join with the case manager, primary nurse, and team pharmacist to conduct bedside rounds on all patients in the geographic care area assigned to the Silver team. The role of each team member during the bedside rounds was loosely scripted.
- The Tan team is identical in make up and will serve as the “control”, performing rounds separately.
- Prior to initiation of the project, physicians, nurses and case managers will complete a survey assessing attitudes regarding relationships with each of the other groups. These surveys will be repeated on an every 3-4 month basis.
- An internal survey regarding communication will be administered to patients at the time of discharge, with particular attention to how they perceive communication between the caregivers and themselves and between their caregivers among one another.
- HCAPHS scores are determined regularly, administered through Press Ganey.
- All survey results (internal and HCAPHS) will be compared before and during the project within the Silver team and between the Silver and Tan teams.



Utilizing a Multidisciplinary Team to Improve Communication with Patients in the Hospital, as Measured by HCHAPS scores

Results

- Baseline data was collected for all the participating faculty, residents, nurses and case managers between January and March 2020
- The rounding project was started in mid January, 2020
- HCAPHS surveys were conducted via Press Ganey as per their schedule.
- Internal patient surveys were tested and modified.
- Subjective response from all the employee participants was very positive.
- In mid-March the Covid pandemic required a massive restructuring of the inpatient service and precluded “teams” of people gathering in patient rooms. The project was put on hold.
- In mid-September the project was resumed with modifications – the pharmacist and the case manager would consult with the team each morning, but would not participate in the bedside component of rounds; “table rounds were no longer conducted; the scripting modified; and there was a concurrent change in patient flow to develop better geogra care locating of patients.



Utilizing a Multidisciplinary Team to Improve Communication with Patients in the Hospital, as Measured by HCHAPS scores

Discussion: Barriers & Next Steps

- The coronavirus put a hard stop on this project mid-March. Many limitations are still in place
- Changes regarding personal distancing still preclude the kind of team rounding we first envisioned. Unclear whether that is temporary or “the new normal”. We are still considering what to continue and what to abandon.
- Though we received exemption from the IRB, the changes that we have made will likely require that we show it to them again.
- The initial employee satisfaction (particularly on the part of the nurses) make us eager to proceed with some kind of variation of the plan
- Patient satisfaction took a modest hit during the height of the pandemic, not surprisingly (no visitors, no visible faces of care providers, decreased time in the rooms, etc.). There are so many variables as to make any effort at scientific interpretation all but impossible.
- We will persevere



Baystate Health





**Baystate
Health**



University of
Massachusetts
UMASS.Medical School



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NI VII Meeting Three/Storyboard

Teaching Teaming, Leadership, and Conflict Resolution skills to improve the culture and attitudes of OB case review

Donald Kirton, Ryan Quarles, Audrey Psaltis, Amrita Roy, Michelle George



Introduction [or Background] & Aim [or Purpose/Objectives]

- In our labor and delivery unit residents, faculty, nurses and midwives work together in patient care but do not train or learn together. We have Obstetric case reviews every other week that are meant to foster shared mental models, systems-based practice and teamwork, but they are poorly attended. Furthermore, some attendees have reported that these reviews can lead to tension and conflict amongst disciplines.
- The purpose of this project is several fold:
 - > To improve attendance and attitudes towards obstetric case review by adding education components
 - > To compare existing hospital survey data pre and post-intervention about the culture of labor and delivery.
 - > To compare pre- and post-intervention surveys about labor and delivery culture, as well as comfort of teaming, conflict resolution and leadership



Methods: Audience, Interventions, Measures

- A survey was created that will be sent to all faculty, midwives, residents and nurses who work in labor and delivery asking about overall culture, attitudes towards OB Case review, and personal comfort with teaming, conflict resolution and teaming skills. Deemed “not research” by our IRB.
- Our group is developing a teaming curriculum during OB case reviews. Materials will be made available for all staff who cannot attend. Highlights and Teaching points will be placed on break/meeting room bulletin boards in our labor and delivery units where all disciplines would have a chance to view the materials.
- Data from questions in the Press Ganey annual hospital surveys that pertain to labor and delivery unit culture will be compared pre and post-intervention.
- A post-intervention survey will be compared to our initial survey to see if there is improvement in any of the content areas, overall culture and morale.
- COVID Changes: Unfortunately, safety precautions were put in place due to the pandemic. OB case reviews were not held over the summer. They are starting back up at this time, so our initial survey has been sent and we plan to roll out our project at the end of fall.



Results (to Date)

- We identified 8 questions in the Press Ganey survey that pertain to trust within the Labor and Delivery unit, patient safety, and interdisciplinary teamwork.
 - > Trust in the work unit was 79% favorable
 - > Questions about patient safety were 94% and 88% favorable
 - > Overall working together within a unit was 87% favorable (5% unfavorable), but between units was only 49% favorable (6% unfavorable)
 - > Teamwork between nurses and physicians was 56% favorable (12% unfavorable), and effective communication questions showed 56 % (between units) and 48% (between physicians nurses nad other medical professionals) favorability (7% and 15% unfavorable).

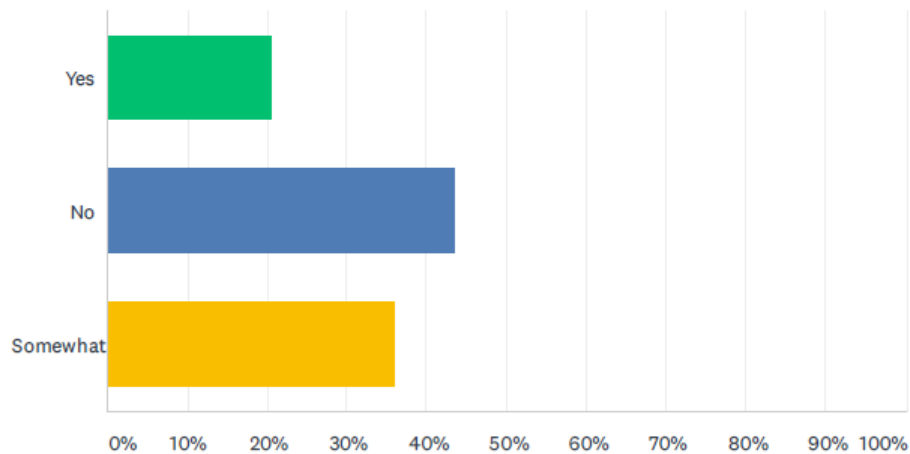


Results (to Date)

- The survey was sent to 198 faculty, midwives, nurses and residents.
- We have a 20% response rate in the first few days, with a fairly equal representation from each group so far.

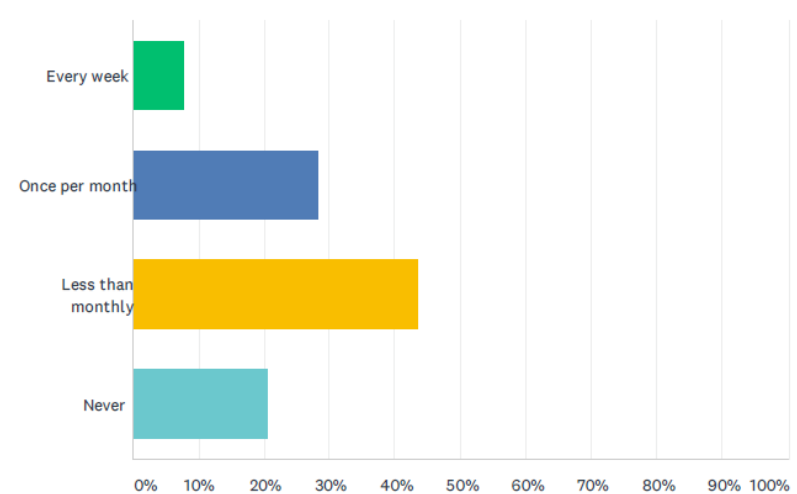
Q4 Are you familiar with the concepts of "teaming"?

Answered: 39 Skipped: 0



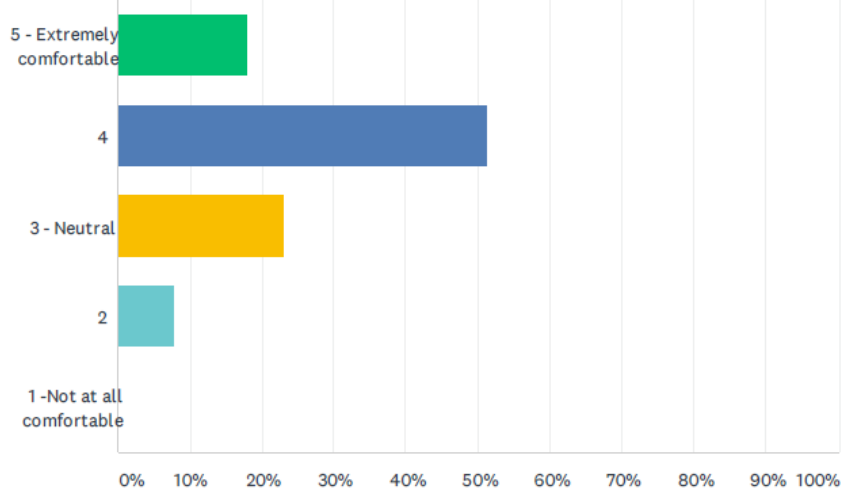
Q2 How often have you attended OB case review in the past (pre-COVID)?

Answered: 39 Skipped: 0



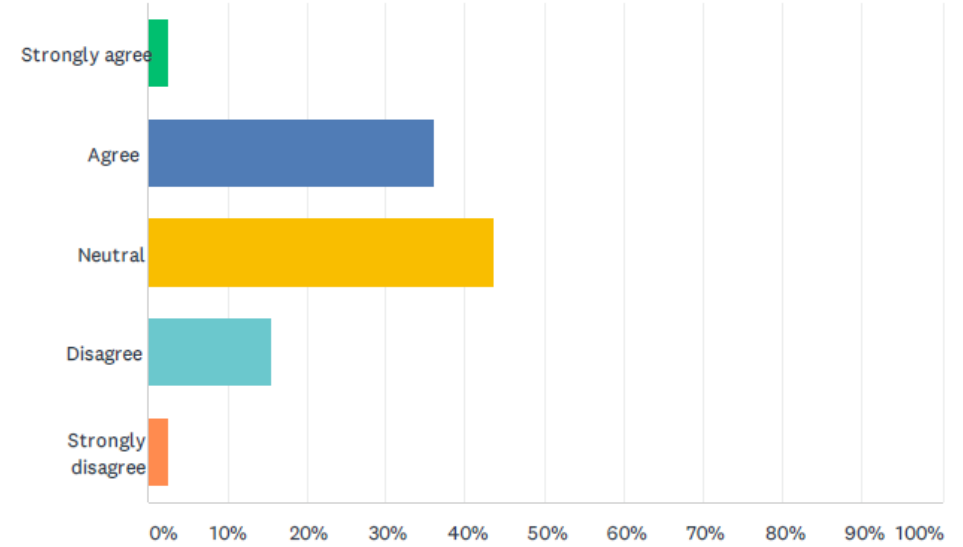
Q5 How comfortable are you with working in a team with new people?

Answered: 39 Skipped: 0



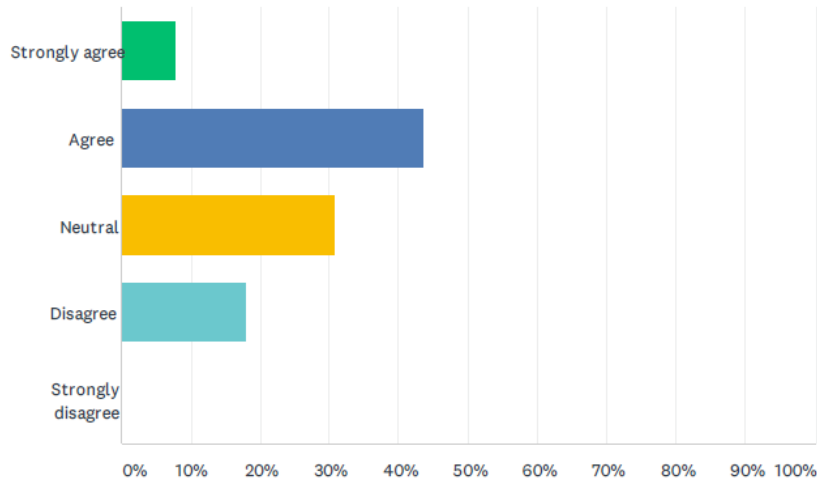
Q8 The culture and morale on LDRP is positive.

Answered: 39 Skipped: 0



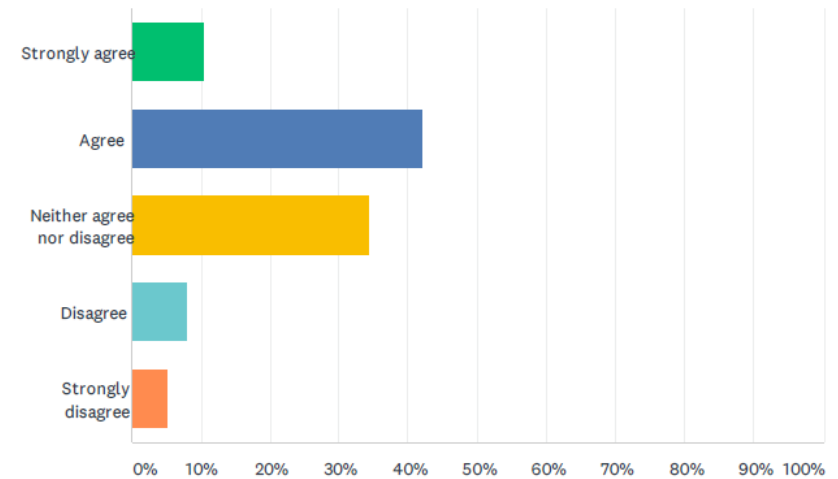
Q9 People come together easily towards a common goal on LDRP.

Answered: 39 Skipped: 0



Q13 The culture of OB Case Review is positive.

Answered: 38 Skipped: 1



Results – How well do the disciplines work together? (%)

	Poor	Fair	Good	Very Good	Excellent
Overall	0	5	59	26	10
Nurse – Midwife	0	3	32	54	11
Attending – Midwife	0	5	37	42	16
Resident – Midwife	0	13	34	32	21
Resident – Nurse	5	26	44	23	3
Attending – Resident	0	5	43	38	14
Attending - Nurse	0	11	42	37	11
Among Resident	0	8	24	37	32
Among Nurses	0	11	29	47	13
Among Midwives	0	3	22	47	28
Among Attendings	0	8	37	37	18



Discussion: Barriers

- COVID delayed our project. We brainstormed many alternative ideas but were quite restricted in possibilities because of limitations of gathering and time (we had a very busy summer compounded by organizational changes that pushed this project to the background for a while).
- Successes:
 - > We achieved IRB exempt status and our survey was recently sent out.
 - > OB Case reviews are being held virtually. While we did not measure this before COVID struck for pre-data, In the first 2 conferences, there seems to be an uptick in participation.
 - Virtual meetings makes it easier to attend. In fact, we are likely to hold all future conferences in person AND virtual in the future to allow for more participation.
 - Participants are contributing more because the chat can be used instead of public speaking, and participants can send comments and questions directly to presenters (semi-anonymous).
 - > In the ramp up to restarting the OB Case review, it was noted that email invitations sent to anyone involved in the case used phrases such as “your case has been flagged” to be presented, which was noted to be triggering terminology which may contribute to some negative perceptions of these conferences. This has been modified to say “your case has been selected to present at OB Case Review”.



Next steps

- Continue to collect our pre-intervention survey data.
- Incorporating our teaming curriculum into the OB Case reviews and post this information after each session
- Completion of our post-survey and the data from this years' Press Ganey survey.

Billings Clinic



NI VII Meeting Three/Storyboard

Exploring experiences of interprofessional teaming in the clinical learning environment before, during, and 'after' COVID

Ashley Dennis, PhD; James Jackson, MD; Virginia Mohl, MD, PhD; Sarah Mete DO; Tya Campbell, MD; Alexis Robinson, PharmD; Candice Wells, RN, MSN, MBA; Jen Potts, OT



Introduction & Aim

Before: Pilot two resident-led patient safety interventions at the micro level in the inpatient medical unit and IMR residency using the theory of relational coordination to measure improved relationships in the interprofessional teams as a measure of “Teaming”



COVID-19



After: This qualitative study aims to explore the impact of COVID-19 on interprofessional participants' experiences of interprofessional teaming in the clinical learning environment.



Introduction & Aim

Research Questions:

- What are healthcare professionals' experiences of interprofessional teaming before, during, and 'after' COVID-19 and how has this influenced their views towards interprofessional teaming?
- What are the similarities and differences in experiences and understandings across different types of participant (e.g. pharmacist versus physician) and settings (e.g. hospital versus general practice)?
- What are participants suggestions for continuing to enhance interprofessional teaming?



Methods: Audience, Interventions, Measures

Participants:

- **TWO** focus groups per target interprofessional group (nursing, medicine (resident, faculty), pharmacy) = Eight focus groups
- **FOUR** people per focus group = Approximately 32 people

Focus Groups:

- Participants will be asked to tell their stories about interprofessional teaming before, during, and 'after' COVID-19 using narrative interviewing techniques.
- Once the narratives have been exhausted, we will ask any outstanding questions about participants' opinions interprofessional teaming and how it could be enhanced



Methods: Audience, Interventions, Measures

Qualitative Analysis:

- Focus groups will be digitally audio-recorded and transcribed anonymously.
- Thematic Framework Analysis
 - Data familiarization
 - Thematic framework identification
 - Indexing
 - Charting
 - Mapping and interpretation



Results (to Date)

Plan:

- Thematic framework analysis will enable us to illustrate key themes in our data around participants' views and experiences of interprofessional teaming.
- Qualitative data analysis software (i.e. Atlas-Ti) will enable us to explore patterns across our data such as similarities and differences in views and experiences between participant groups.



Discussion: Barriers & Next Steps

- Covid has created significant barriers for us as a team
 - Our original projects were not feasible considering the current context
 - Many of our team are directly involved in our institution's COVID response
 - Moving forward, our biggest challenge will be re-grouping in a still stressful and busy time for our team
 - Our plan with this project is that it will be something that we can scale up or down so that we can flexibly respond to the environment as it changes over the next 6 months



Cedars-Sinai





NI VII Meeting Three/Storyboard

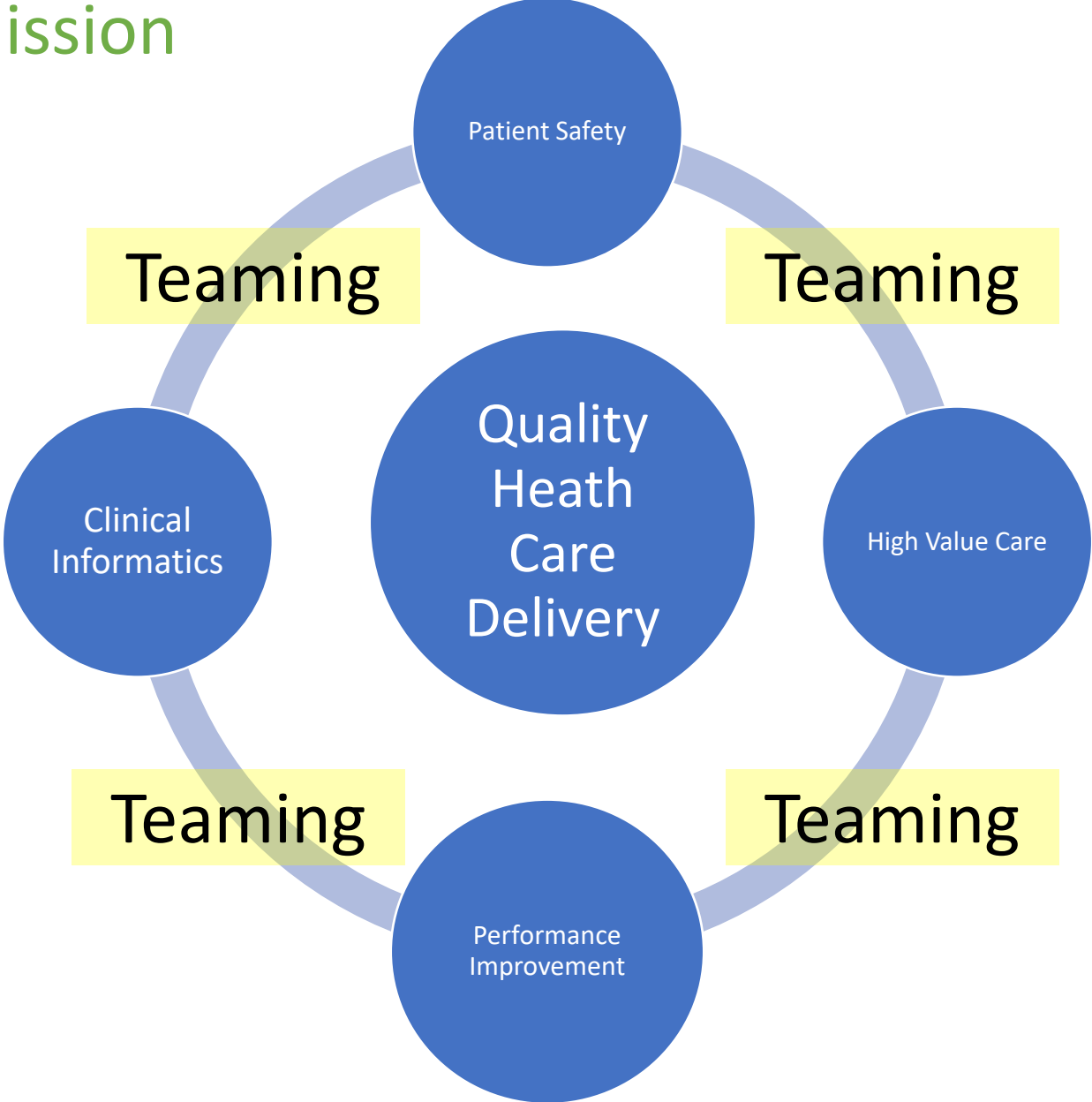
Integrating Residents into an Interdisciplinary Collaborative: The MD/RN Collaborative

Lili Shek, MD, MHDS; Bryna Harwood, MD, MS; Betsy McGaughey, EdD, MS;

Peachy Hain, RN, MSN



Cedars-Sinai Mission



Cedars-Sinai MD/RN Collaborative Committee: Teaming in Practice

- Established in 1998
- Physician-nurse partnership → interdisciplinary unit-based teams
 - > Social workers
 - > Case managers
 - > Pharmacists
 - > Physical Therapists
 - > Occupational Therapists



Lacking Resident Involvement
Lacking Teaming Implementation

Aim

- Engage residents in the MD/RN Collaborative committees and projects
- Provide training on teaming concepts to MD/RN collaborative committees
- Increase satisfaction of MD/RN Collaborative members
- Increase in timely and effective solutions for inpatient care

Methods:

Align resident
interests with MD/RN
initiatives

Assess needs for
training on teaming

Provide appropriate training
on teaming using real-time
situations

Assess satisfaction of
resident participation and
teaming strategies



Challenges

- Delay in start of project due to COVID-19 prioritization efforts and new social distancing standards
- Transition period of incoming housestaff June-August

Next Steps

- Selection of collaboratives/projects with which to integrate new resident members
- Assignment of residents to MD/RN committees
- Teaming education and training with real-time scenarios



Cleveland Clinic Akron General





Cleveland Clinic
Akron General



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NI VII Meeting Three/Storyboard

Nurse Mentoring Program for Internal Medicine Interns

R. Powers MD, K. Snyder RN, A. Ababneh MD,
D. Mayes RN, J. Gorecki RN, C. Goliath PhD, N. Haller PhD,
A. Diwakar MD, T. Sheers MD



**National
Initiative**

Background

- There is a need to improve resident physician – nurse teaming for the purpose of improving patient care.
- Currently, our institution does not have an onboarding program to address this need.
- A review of the literature yielded reports of institutions that incorporate inter-professional mentorship programs in the resident onboarding process (Tilden et al, 2016).

Purpose

- To improve patient care and safety through increased communication and teaming following a nurse-Internal Medicine intern mentorship program.

Objectives

- To develop a nurse mentorship-based onboarding program for Internal Medicine Interns.
- To assess feasibility and desirability of the mentoring program concept and content.



Methods: Audience, Interventions, Measures

- A mentoring program will be piloted with Internal Medicine interns.
- 12 interns will be paired with self-selected nurse mentors on a 1:1 basis.
- There will be four sessions:
 - > Session 1 (1 hour): Dyad Pairing and Icebreaker Luncheon.
 - > Session 2 (4 hours): Nurse mentor shadows intern.
 - > Session 3 (4 hours): Intern shadows nurse mentor.
 - > Session 4 (1 hour): Debrief of shadowing experience – identify challenges and role misperceptions, and discuss teaming for patient care topics (patient safety and communication).
- This project received a Quality Improvement designation from the CCAG IRRB.
- There will be two pilot sessions of the program:
 - > Pilot 1: Jan 2020-Jun 2020 (established interns)
 - > Pilot 2: Jul 2020-Dec 2020 (new interns)
- Program feasibility and desirability was assessed upon completion of the the first cohort.
- Objective measure of the program's success will occur through pre/post-program administration of a relational coordination survey.
 - > The RC Survey 2.0 is a validated measure of teamwork in healthcare.



Results (to Date)

- Relational Coordination tool completed for pre/post-program Cohort 1.
 - > Preliminary results were obtained, but definitive comparisons cannot be made due to low post-program completion rate.
 - > Between group comparisons will be made upon completion of RC tool by Cohort 2.
- Adjustments were made to overall structure of the program in light of COVID work-stream demands and restrictions.
- Changes made to scheduling of sessions for Cohort 2.
- Cohort 2 participants (nurse mentors and interns) have been identified.
- Pairing of mentors and interns is underway.



Discussion: Barriers & Next Steps

- Intern schedules
 - Nurse mentor schedules
 - Identifying meeting times that work for the entire group.
 - Participation rate for RC survey.
 - COVID, COVID, COVID!
-
- Currently administering the pre-program Relational Coordination survey for Cohort 2.
 - Next steps include:
 - > Scheduling the shadowing sessions.
 - > Scheduling the debrief session.
 - > Administering the post-program RC survey Cohort 2.
 - > Comparison of survey results pre/post program between and within Cohort 1 and 2.



Cleveland Clinic Main Campus



BOOST

Bridging Operative Obstacles by Strengthening Trust

C. Foshee PhD, L. Baszynski MSN, L. Gardner MSN, J. Lipman MD,
R. Romano MBA, L. Simko MS, L. Smith MBA, E.I. Traboulsi, MD, MEd

Introduction & Objectives

This program is designed to overcome inherent assumptions and biases that lead to a lack of trust and mutual respect between OR nurses and PGY1 surgical residents.

- Trust has been shown to be an essential component of effective teams. Trust fuels mutual respect, collaboration, and engenders a psychologically safe environment where team members are able to act on a shared vision and shared goals.
- The curriculum is framed by transformational learning theory to addresses identified gaps within a general surgery setting. Content is tailored to the needs of this group and engages participants in social learning activities, open discussions, and practice opportunities.

Program Objectives

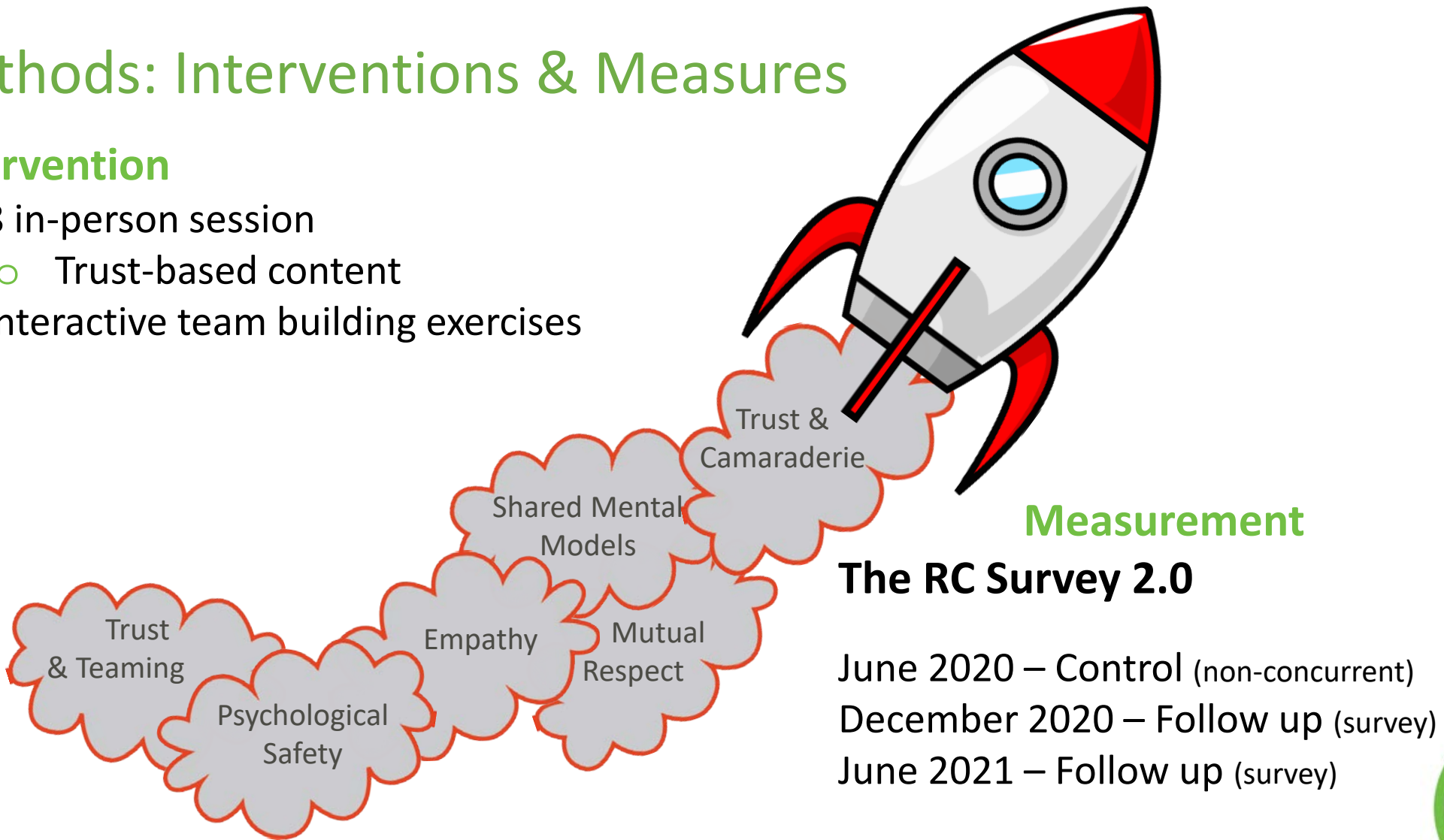
- Discuss the role of trust and mutual respect on teamwork and patient outcomes
- Explain the implications of role understanding on patient care
- Demonstrate ability to maintain a climate of respect through effective communication
- Apply concepts of emotional intelligence and empathy to minimize assumptions and biases in daily professional interactions



Methods: Interventions & Measures

Intervention

- 8 in-person session
 - Trust-based content
- Interactive team building exercises



June 2020 – Control (non-concurrent)
December 2020 – Follow up (survey)
June 2021 – Follow up (survey)

Self-reflections



Results

WORKGROUPS AND THE 7 DIMENSIONS OF RELATIONAL COORDINATION

	CCN1	CCR2	AttPh	RN Mgr	Cs Mgr	Tech	OTHR
RC INDEX	Orange	Blue	Green	Blue	Blue	Blue	Blue
Frequent Communication	Green	Green	Green	Green	Blue	Green	Green
Timely Communication	Blue	Blue	Blue	Blue	Blue	Orange	Blue
Accurate Communication	Blue	Blue	Green	Blue	Green	Blue	Blue
Problem-Solving Communication	Orange	Blue	Blue	Blue	Blue	Blue	Blue
Shared Goals	Blue	Blue	Green	Green	Green	Blue	Blue
Shared Knowledge	Orange	Orange	Blue	Blue	Orange	Orange	Blue
Mutual Respect	Blue	Blue	Blue	Green	Blue	Blue	Blue

Ratings

Nurses:

- Timely communication &
- Frequent communication



Residents:

- Timely communication &
- Frequent communication



Nurses & Residents:

- Shared knowledge &
- Problem solving communication



Discussion: Barriers & Next Steps

Barriers:

- Building trusting teams during COVID
- Overcoming resistance or assumptions about intent of program
- Allocating sufficient time to successfully develop and implement program

Next Steps:

- Finalize development of curriculum
- Curate educational resources to supplement program
- Solidify program evaluation plan



TriHealth





NI VII Meeting Three/Storyboard

Interdisciplinary Teaming Across the GME Spectrum

Elizabeth Beiter, MD

Becky Fleig, MEd

Angela N Fellner, PhD CCRP

Steven Johnson, MD



Introduction & Aim

- According to Joint Commission Perspectives article from August 2012, an estimated 80% of serious medical errors involve miscommunication between caregivers
- Resident physicians are the physicians with the most face-to face contact both with patients and with other clinical team members
- At the GME level, our project aim is to teach and validate the use of evidence based communication strategies
- Additionally, because the roles and composition of interdisciplinary clinical teams vary widely between clinical departments, each residency program is creating a department specific project to improve interdisciplinary teamwork utilizing these evidence based communication skills in their clinical settings
 - > Family Medicine/IM - Improving Hospital Discharges with Resident and Nurse Teamwork
 - > Surgery - Evaluation and Improvement of the Consultative Process at TriHealth
 - > OB/GYN - Centering and High Risk Pregnancies - ON HOLD due to COVID



Methods: Audience, Interventions, Measures

GME Project

Title: Improving Resident Communication Skills

Audience:

- Participants will be 120 male and female residents and fellows in TriHealth GME programs

Interventions:

- Educational sessions for all residents will be part of GME Grand Rounds to teach AIDET + the Promise, an evidence based patient communication strategy
- LEARN module for any residents unable to attend the live/video-conferenced session

Measures:

- Pre- and post- knowledge assessment from educational session
- Repeated measures of resident AIDET scores based on the AIDET validation rubric
- Track individual resident and post-graduate year (PGY) progress over time
- Track residency program progress over time
- Repeated measures of CGCAP & HCAHP scores



Methods: Audience, Interventions, Measures

OB/GYN Project

Title: Centering and High Risk Pregnancies

Audience:

- The study population will include all pregnant women, aged ≥ 18 , diagnosed with gestational diabetes
- Participants will be identified based on a failed 3 hour glucose challenge test (using Carpenter-Coustan Criteria) or a 1 hour glucose challenge test result of $> 200\text{mg/dL}$
- They will be recruited during their prenatal office visits by residents and case managers
- Exclusion: Patients unable or unwilling to attend group sessions, with Pregestational Type 1 or Type 2 Diabetes, multi fetal gestations or patients with diagnosed fetal anomalies

Interventions:

- Participants will receive group prenatal care as opposed to traditional prenatal care
- There will be one pilot centering group, using rolling enrollment based on attrition and delivery
- Future centering groups will also consist of 10-15 patients

Measures:

- Mechanism of prenatal care provided
- Other dependent variables include pt satisfaction, delivery mode, shoulder dystocia, birth weight, NICU admission, and others



Methods: Audience, Interventions, Measures

General Surgery Project

Title: Evaluation of the Consultative Process at TriHealth

Audience:

- Any health care professional involved in placing consults to general surgery

Intervention:

- Creation of a specific surgical consult role in Voalte, a secure messaging system for hospital systems that allows creation of specific teams of care or roles within the app

Measures:

- A self-administered questionnaire will be provided to health care professionals to determine an association with satisfaction of the consultative process before and after the implementation of the hospital specific surgical consult Voalte role
- Compare survey data prior to the addition of the Voalte role with survey data 6 months post implementation



Results (to Date)

- Due to the COVID-19 delay in starting projects, results have not yet been collected



Discussion: Barriers & Next Steps

Barriers

1. COVID-19

- > Reduced staffing resources
- > Disrupted patient care services
- > Social distancing and PPE guidelines

2. Buy-in from Stakeholders

- > Inconsistent completion of communication skills validation
- > Staff turn over on patient units resulting in reconstruction of teams

Next Steps

GME

Ensure that AIDET evaluations are being completed and reported by programs

Continue to collect data

IM/FM

Surgery

Collect data

OB/Gyn

Deployment on hold due to no centering permitted yet



Aurora Health Care Cardiology Project



INTERPROFESSIONAL COMMUNICATION IN THE CARDIAC CATHETERIZATION LABORATORY

**Matthew McDiarmid DO, Charnai Sherry PA-C, Jodi Zilinski MD,
Deborah Simpson PhD, Tonga Nfor MD, Renuka Jain MD**
[Cardiology](#), [Electrophysiology](#), and [Interventional Cardiology](#) Fellowship Programs

Aurora Health Care – Milwaukee, Wisconsin @AAH_StLukesCV

INTRODUCTION & AIM

- Continued growth in procedural volume & innovative technology in the Cardiac Catheterization Laboratory (CCL) → increased complexity of CCL fellowship training
- **Improve communication/feedback between fellows ↔ faculty**
- **Improve the effectiveness and efficiency of the CCL**



METHODS:

AUDIENCE AND INTERVENTIONS

- Targeting Faculty, Fellows, & Friends (...techs/RNs)
- Explicitly defined fellow's role in the CCL based on PGY status
 - Delineated levels of supervision x whom (attending, IC fellow)
 - Feedback frequency, formality, timing (pre-post procedure)
- Workflow:
 - Earlier procedural case assignment to the fellows
 - Fellow confirmation of procedure and access site
 - Promote in office procedural consent - goal >70% outpatient

METRICS

- CCL data regarding volume, transition, and delays
- ACGME annual fellows survey & Aurora Evaluations
- Clinical Learning Environment Quick Survey (CLEQ)
- Mayo Well-Being Index

CARDIAC CATH LAB PGY Year and Rotation/Semester → Objectives w Levels of Supervision ↓	1 st Yr	2 nd Year PGY5/Fel2			3 rd Year	Interv PGY7	
	PGY4/Fel1 No formal lab rot	1 st & 2 nd Blk	3 rd & 4 th Blk	5 th & 6 th Blk	PGY6/Fel 3	1 st Sem	2 nd Sem
Level of Supervision*		A	B	C	D	E	F
Communication/feedback*		A	B	C	D	E	E
MEDICAL KNOWLEDGE: ASSUMES PRIOR LEVEL KNOWLEDGE UNLESS OTHERWISE NOTED							
1. Coronary anatomy as pertaining to LV function and wall motion	1						
2. Coronary anatomy and role with patients presenting with Acute Coronary Syndrome	1						
3. Indications for invasive diagnostics	1						
4. Basic understanding Coronary Angiogram films and views <ul style="list-style-type: none"> ○ Identification of view and projection ○ Identification of coronary anatomy ○ Identification of basic angiographic abnormalities 	1						
5. Procedural H&P, sedation note, AUC, consent			1				
5.1. Procedural H&P, sedation note, AUC		1					
6. Pertinent patient information; including prior surgical		1					
7. Review of prior angiogram results and/or images independently					1		
7.1. Review of prior angiogram results and/or images with IC fellow/attending		1					
8. Understanding of fluoroscopy and radiation safety		1					
PROCEDURAL SKILLS:							
20. Develop understanding in the setup, use, and interpretation of advanced equipment (ie, Atherectomy, Impella)						1	
20.1. Proficiency in appropriate coronary equipment selection						1	
20.2. Complete competency in setting up patient and equipment for procedure			1				
21. Proficiency in sterile scrub technique and procedural draping		1					
21.1. Setting up procedural area: drape, manifold connections, zoll, etc		1					
22. Development of proficiency in peripheral vascular equipment selection						1	
23. Independent conscious sedation administration			1				

* Level of supervision: A = Close, immediate oversight by the attending; B = Close, immediate oversight by the IC fellow and/or attending; C = Limited; D = Diagnostic studies= independent & Advanced/interventional procedures= Direct; E = Diagnostic studies= independent & Advanced/interventional procedures= Direct; F = limited → independent for diagnostic and advanced/interventional procedures

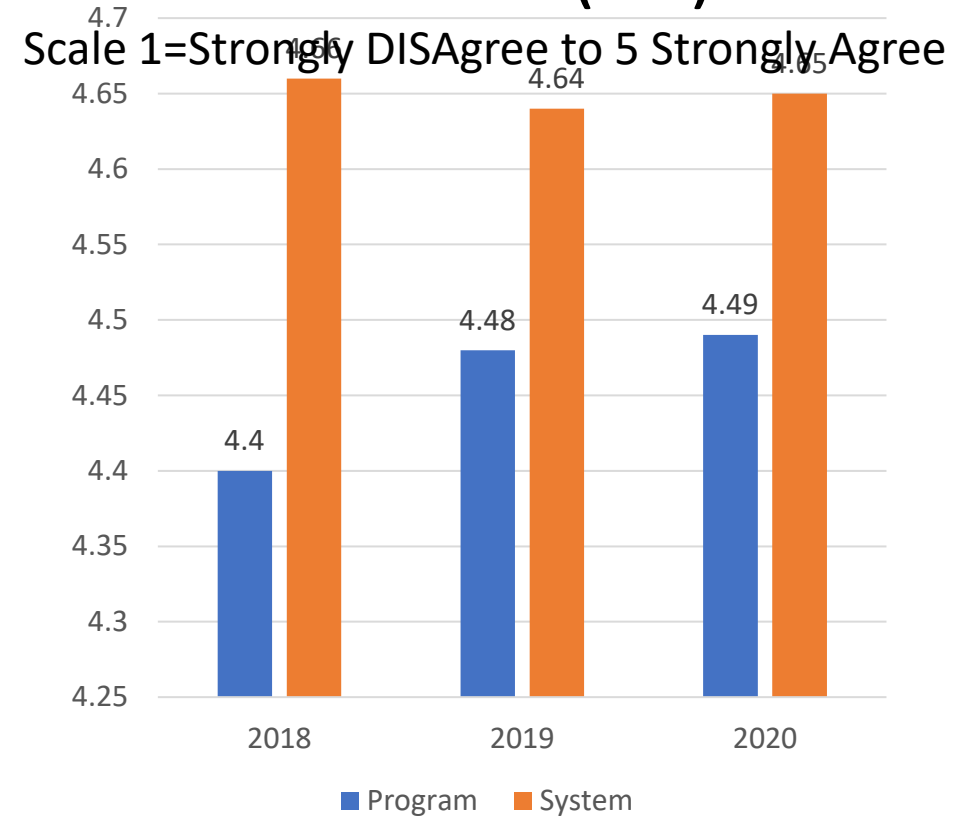
* Communication/feedback: A = verbal, before and after case. Write post op report with attending; B = verbal. Write post op report with attending/IC fellow; C = verbal, pre and post op brief with attending. Independently write post op report; D = verbal, in person, two-way assessment; E = verbal, in person, Pre-Post PCI brief;



RESULTS (TO DATE)

CLEQS ITEM SCALE: 1 = Strongly Disagree to 5 = Strongly Agree	Baseline Mean (SD)	Mid Point Mean (SD)
I feel supported by team/unit members in my/team's everyday on-going learning	3.9 (0.85)	3.8 (1.15)
Team members' (and my) roles and expectations are clear.	4.1 (0.75)	4.3 (0.75)
My direct supervisor/ attending provides sufficient supervision/ feedback and treats me with respect in support of my personal growth.	4.2 (0.93)	3.3 (0.74)

PROVIDED HELPFUL TIMELY FEEDBACK (CV)



DISCUSSION: BARRIERS & NEXT STEPS

- **This cycle saw an increase in responses as well as increased diversity of responders (staff type)**
- **Overall, the CCL still has a positive image, but Communication still seems to be a major concern**
- **Identified Barriers were CCL volume, pace, & provider schedule**
- **Fellows trended to more negative responses; could be reflection that some have not independently choose this career area**

