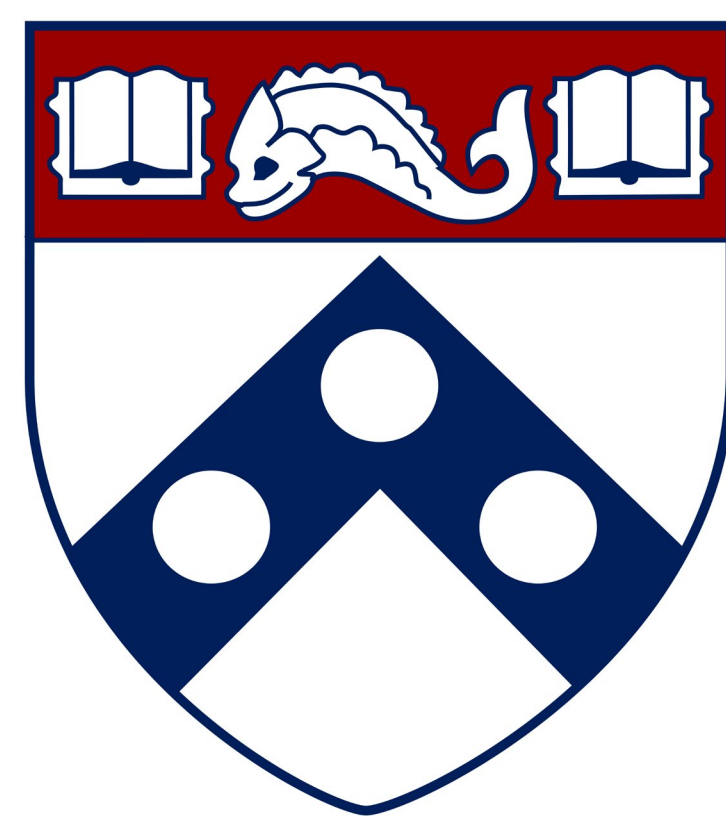


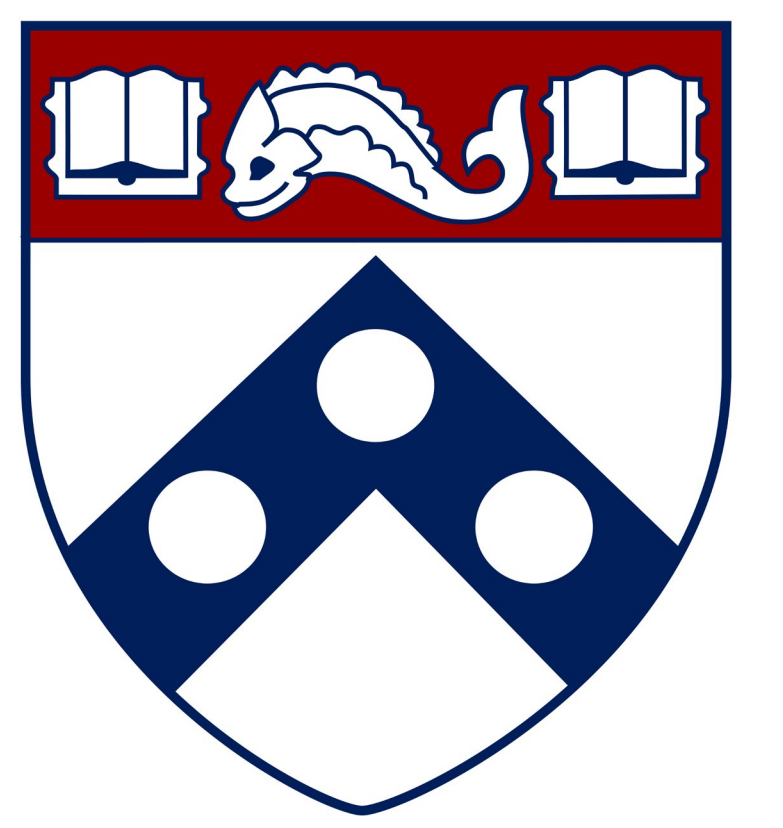
The image features a dark blue background with silhouettes of graduates celebrating. Several graduates are shown from the chest up, holding their black graduation caps high in the air. Some are also holding rolled-up diplomas. The silhouettes are dark against a lighter blue circular area in the center, which is itself set against the dark blue background. The overall mood is one of achievement and joy.

# 2023 MELT Example Projects



# Patient Perception of Diagnostic Uncertainty: Impact of Physician Gender and Perceived Career Experience

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## Background

- Physicians must communicate diagnostic uncertainty as part of shared-decision making
- However, communication of uncertainty has been linked to decreased patient satisfaction, decreased adherence, and lower trust in and perceived competency of the physician
- How physicians communicate uncertainty may influence patient response, but the optimal strategy for communicating uncertainty is unknown
- Patients' implicit biases also impact their perception, with male and older/more experienced physicians being viewed more positively and leading to higher patient satisfaction
- Specific communication strategies might mitigate such negative responses, which could benefit female and early-career physicians

## Goals and Objectives

- Determine if patients respond differently to communication strategies based on the gender and experience of the physician
- Determine whether communication strategies should be adjusted based on physician characteristics

## Setting and Methods

- Will film physicians (actors) using 1 of 3 strategies to communicate diagnostic uncertainty in a simulated outpatient primary care clinic
  - Physician and patients (actors) discuss a chief complaint that has diagnostic uncertainty (atypical chest pain)
  - Actors: 4 white physicians, two female and two male, one of each gender appearing to be early vs late career stage
- Participants will be recruited using Amazon mTURK
  - These "patients" first read a common clinical scenario (text), then watch a video showing 1 of 3 communication strategies
- Participants then complete a survey to assess satisfaction, trust and confidence in the physician, perceived physician competence, likelihood of following the recommendations
  - Responses assessed using Likert scales
  - Primary outcome: perceived physician competence

### Data Analysis

- Will model using ordinal logistic regression using perceived competence as the outcome, and variables of communication strategy (3), physician gender (2), physician career stage (2), rater age (5), rater gender (3), rater race (5), rater education level (5), geographic region (4), prior contact with the healthcare system (2)
- 2 x 2 factorial design for the gender and age/experience level

## Things I Learned:

- How to create simulated encounters to study communication
  - Identify and limit potential confounders through study design (e.g. ensure actors use similar body language/tone, control physician race)
  - Develop appropriate exclusion criteria (e.g. exclude participants with medical background or who significant past exposure to healthcare)
- How to assess which available web-based platform for survey distribution is the best fit (budget, generalizability of results based on the demographics of the platform, quality of responses)
- How to design a survey to adequately capture intended results
  - Ensure survey questions each link to a specific objective
  - Appropriate length of survey
  - Improve validity through using a validated scale (Video Engagement Scale) to assess participant engagement

## Results or Curriculum Design

- Video scripts and survey have been created
- Video script and survey was tested by a group of medical education experts, and their feedback was incorporated
- Data collection awaiting additional funding (to recruit study participants)

### Example of Video Script:

**Introduction provided to all participants (text):** *Today you are scheduled for a visit with Dr. Jones, your primary care physician. Dr. Jones has been your primary care doctor for about a year. You've seen Dr. Jones twice before in their office to discuss your high blood pressure and diabetes. You scheduled today's visit to talk about chest pain that you've been experiencing for the past few weeks. It wasn't too bothersome to you, so you haven't seen any other doctors or gotten any tests done yet. Still, you've never had chest pain before, so you want to see your doctor to see what's going on and make sure it isn't anything serious.*

#### Common Script for All Videos:

*Video starts with patient seated in chair in an exam room. Dr. Jones knocks on the door then enters after patient instructs the doctor to enter the room.*

**Doctor:** Hi, how are you doing? It's good to see you again.

**Patient:** Hi Dr. Jones, it's good to see you again too. I've been doing okay.

**Doctor:** What brings you in today?

*[Doctor listens intently with body directed towards patient as the patient speaks, occasionally nodding in response to patient's statements. They appear to be actively listening to the patient.]*

**Patient:** Well, I've been having this pain in my chest. I wasn't too worried about it at first, but it's been happening for a few weeks now so I thought it would be a good idea to come in to see you.

### Example of Survey Questions:

- How satisfied were you overall with your visit with the physician (Dr. Jones)?
  - Very satisfied
  - Fairly satisfied
  - Neither satisfied nor dissatisfied
  - Fairly dissatisfied
  - Very dissatisfied
- How confident were you in the recommendations made by the physician?
  - Very confident
  - Fairly confident
  - Neither confident nor unconfident
  - Fairly unconfident
  - Very unconfident

## Future Directions:

- Study impact of physician race including physician-patient race concordance/discordance on patient response to communication of uncertainty
- Simulation-based training/curriculum to teach optimal communication strategies
  - If specific communication strategy is shown to be best for communicating uncertainty, then teaching trainees such strategies could provide them with the tools to improve the patient-physician relationship and improve patient satisfaction (a metric increasingly used for compensation and academic promotion)
  - If this strategy is also shown to mitigate negative responses to female or early-career physicians, these could be particularly impactful for such trainees
- Investigate if preferred communication strategy varies based on patient characteristics such as comfort with uncertainty
- Study the impact of using specific communication strategy in real physician-patient interactions

## Conclusions

Pending data collection and analysis

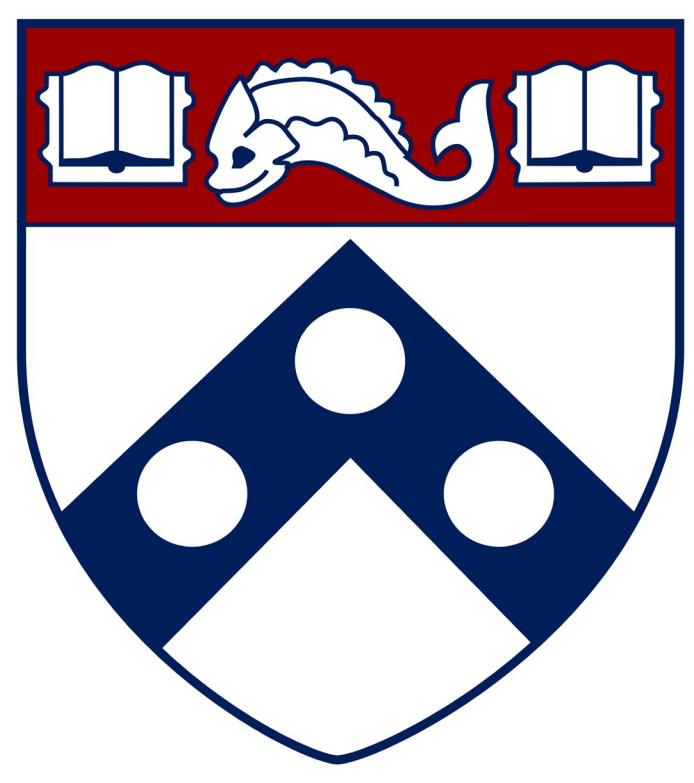
## My Future Plans & MELT

### For study completion:

- Recruit participants through Amazon's mTURK and complete data collection
- Perform data analysis

### For publication/presentation of work:

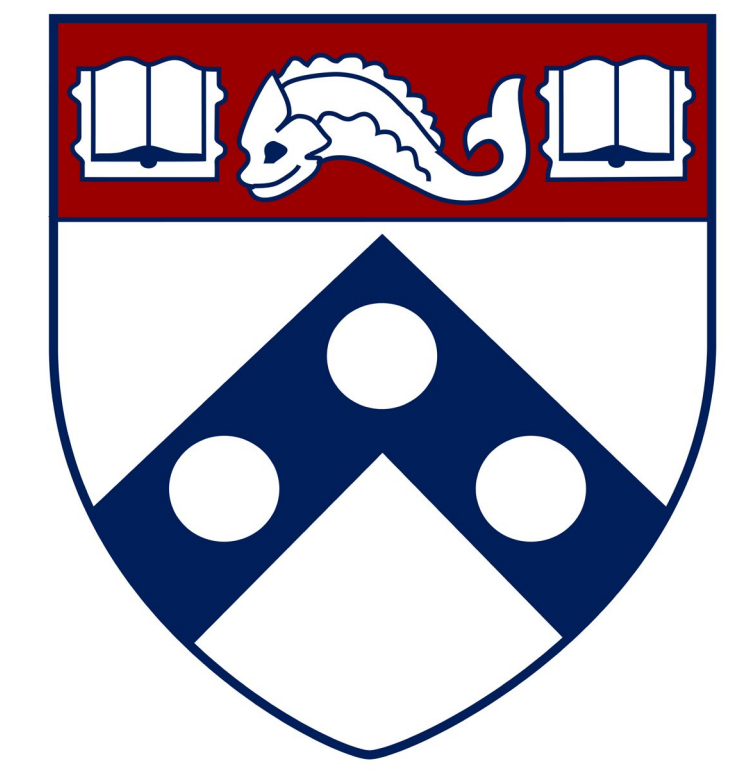
- Prepare abstract and submit to a national/international conference, either the American Thoracic Society (ATS) International Conference (through ATS's Medical Education division) or SGIM
- Depending on results, either submit a manuscript solely assessing impact of physician gender and career stage on communication of uncertainty, or repeat experiment while varying physician race to obtain additional data prior to submission



# Assessing Opportunities for Feedback During Night Float Rotations for Internal Medicine Residents

Evan Merryman, MD<sup>1</sup> and Rani Nandiwada, MD<sup>1</sup>

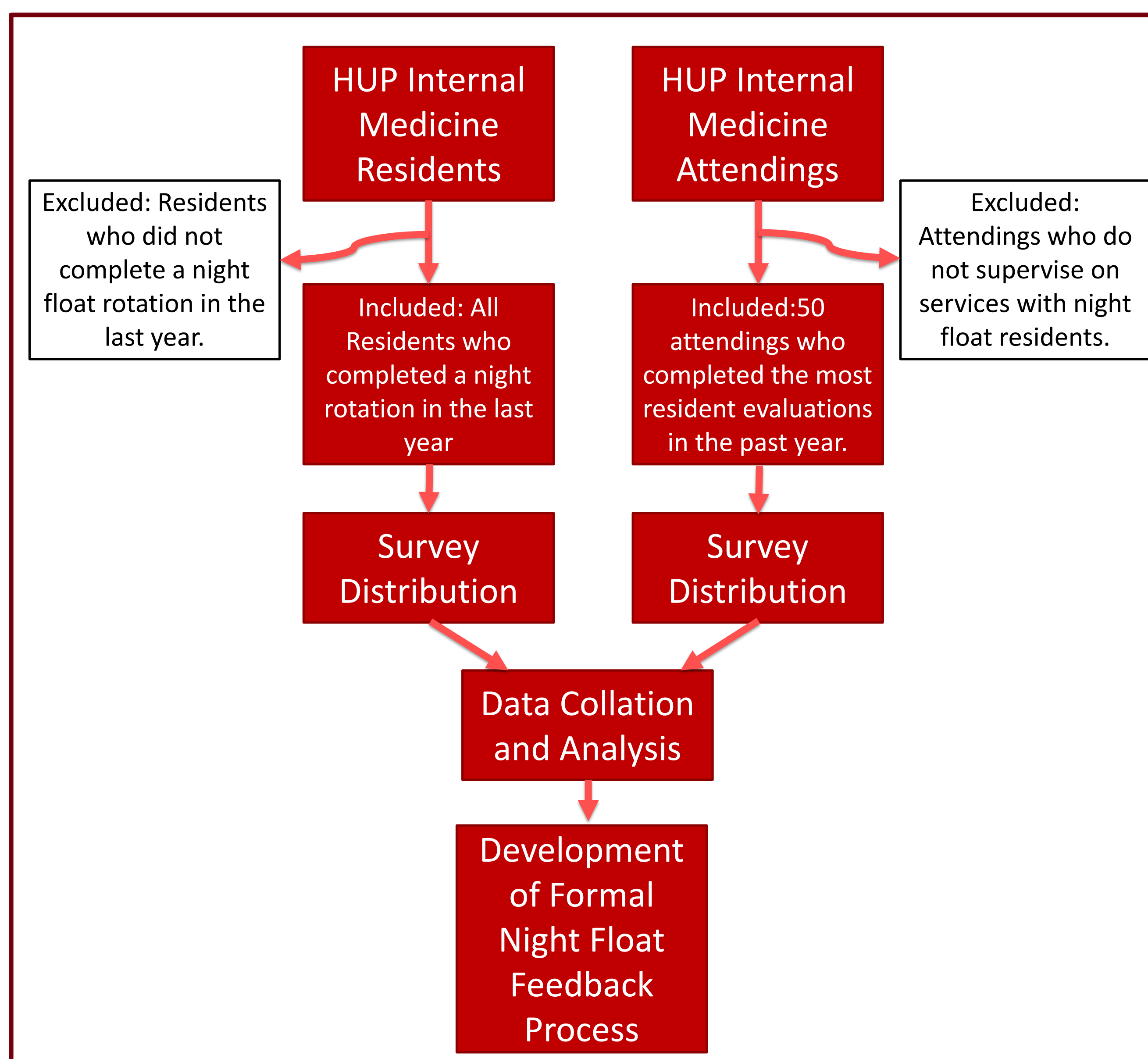
<sup>1</sup>Department of Medicine, Hospital of the University of Pennsylvania



## Background

- Many residency programs have transitioned from extended shift to night float staffing models in response to duty hour reform.
- This has created a unique working experience for night float resident with limited direct interaction with attending physicians.
- Prior studies have identified positive aspects of this change in the form of decreasing number of hours worked and increasing opportunities to practice with autonomy, but have identified less formal teaching and a lack of organized feedback as potential shortcomings.<sup>1-2</sup>
- Despite the identification of these potential issues, there is limited literature about how to effectively deliver feedback to night float residents.
- This studies aims to assess the experiences and opinions of both residents and attendings in one Internal Medicine programs regarding feedback while residents are on night float rotations.

## Methods



## Results

### Resident

A total of 78 residents completed the survey (57.4% response rate).

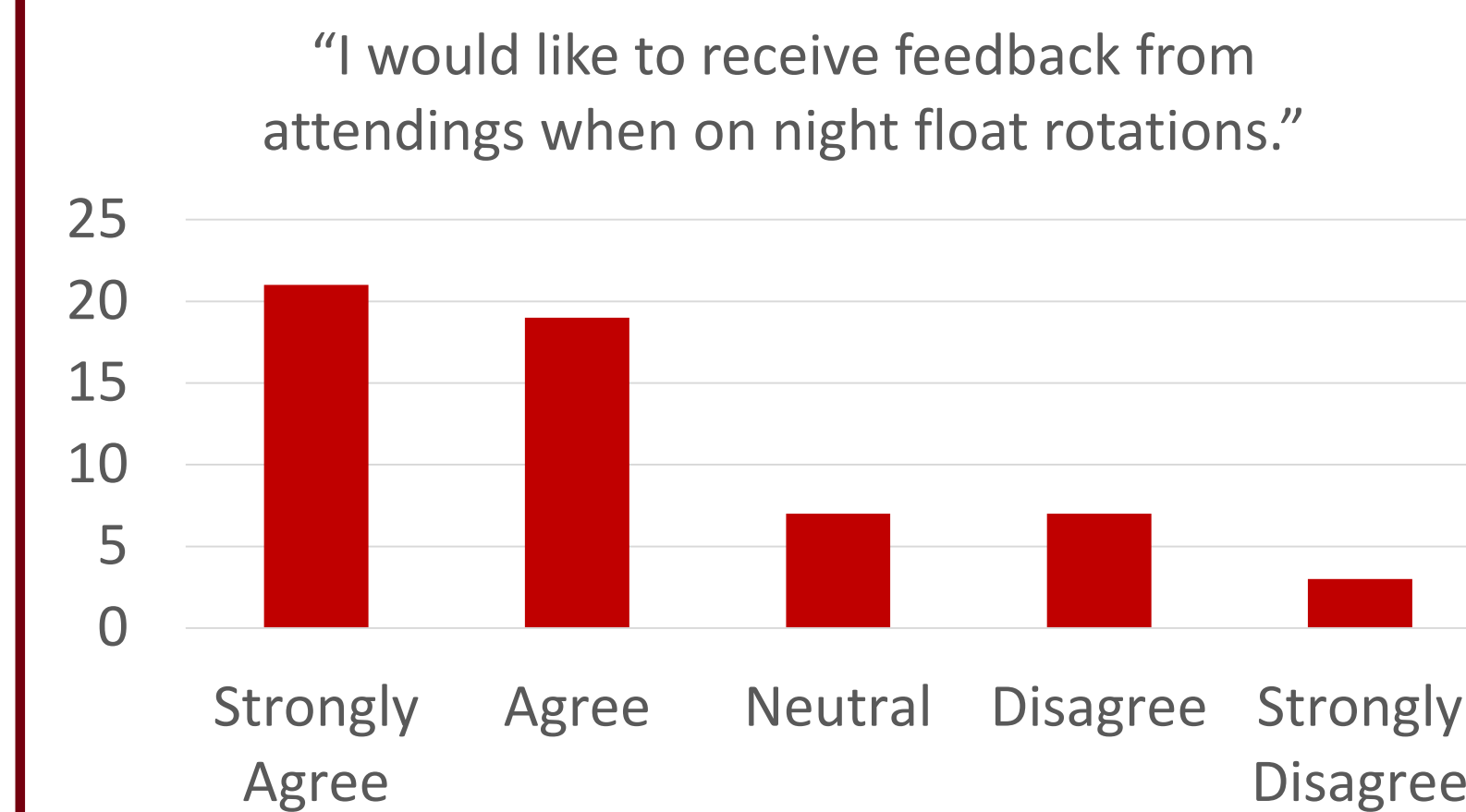


Figure 1. Most residents want feedback during night float.

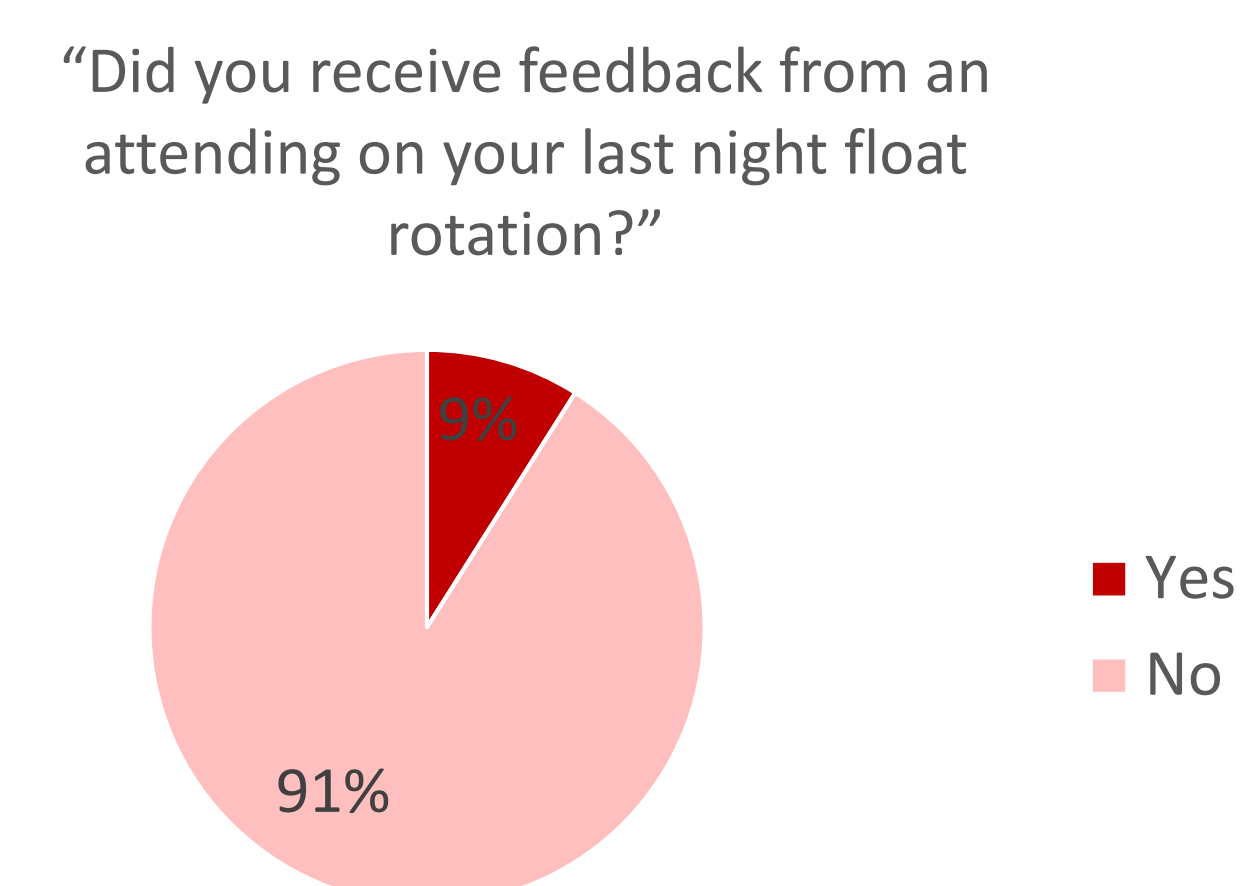


Figure 3. Few residents received feedback during night float.

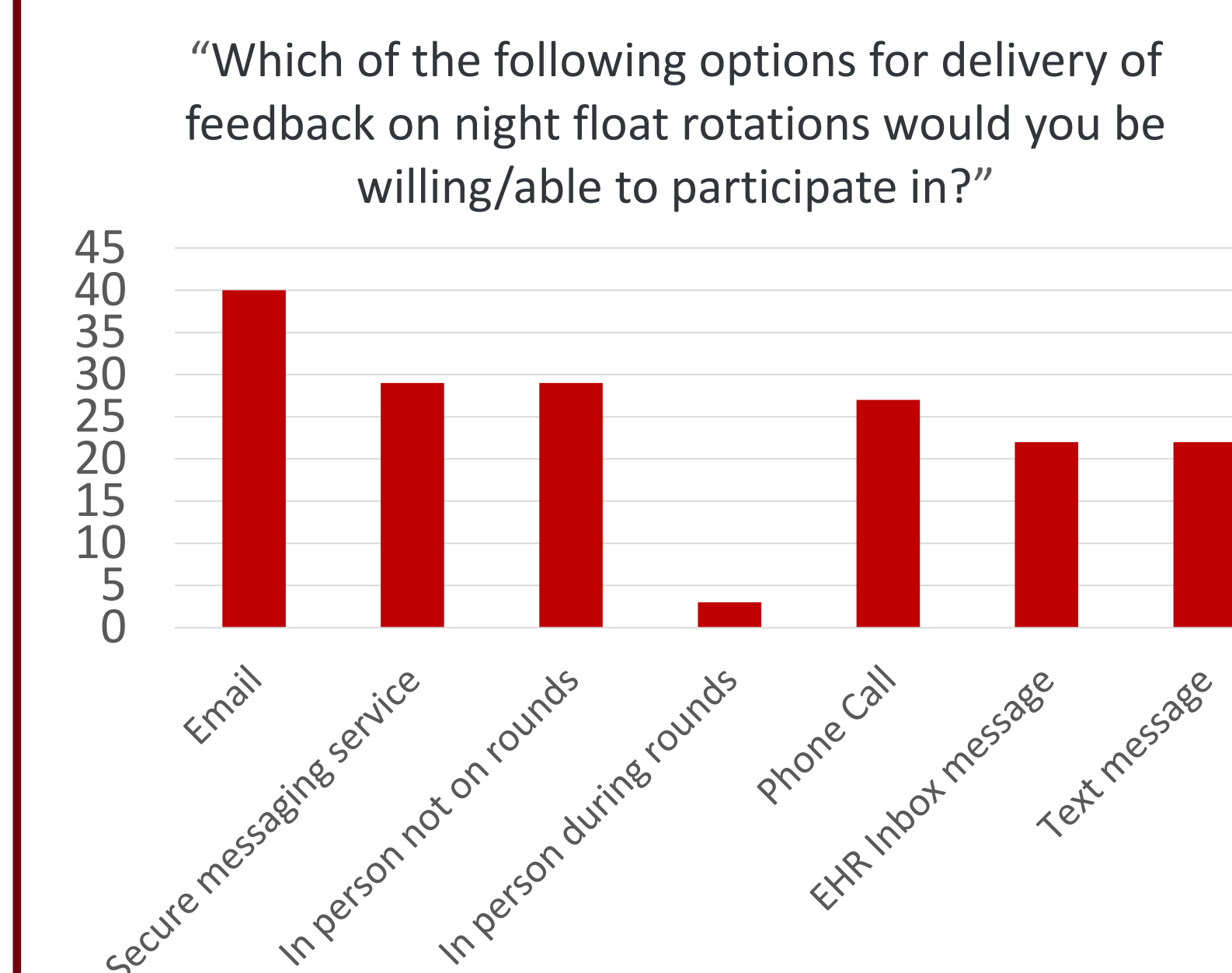


Figure 5. Resident have a slight preference for asynchronous feedback.

### Attending

A total of 36 attendings completed the survey (72% response rate).

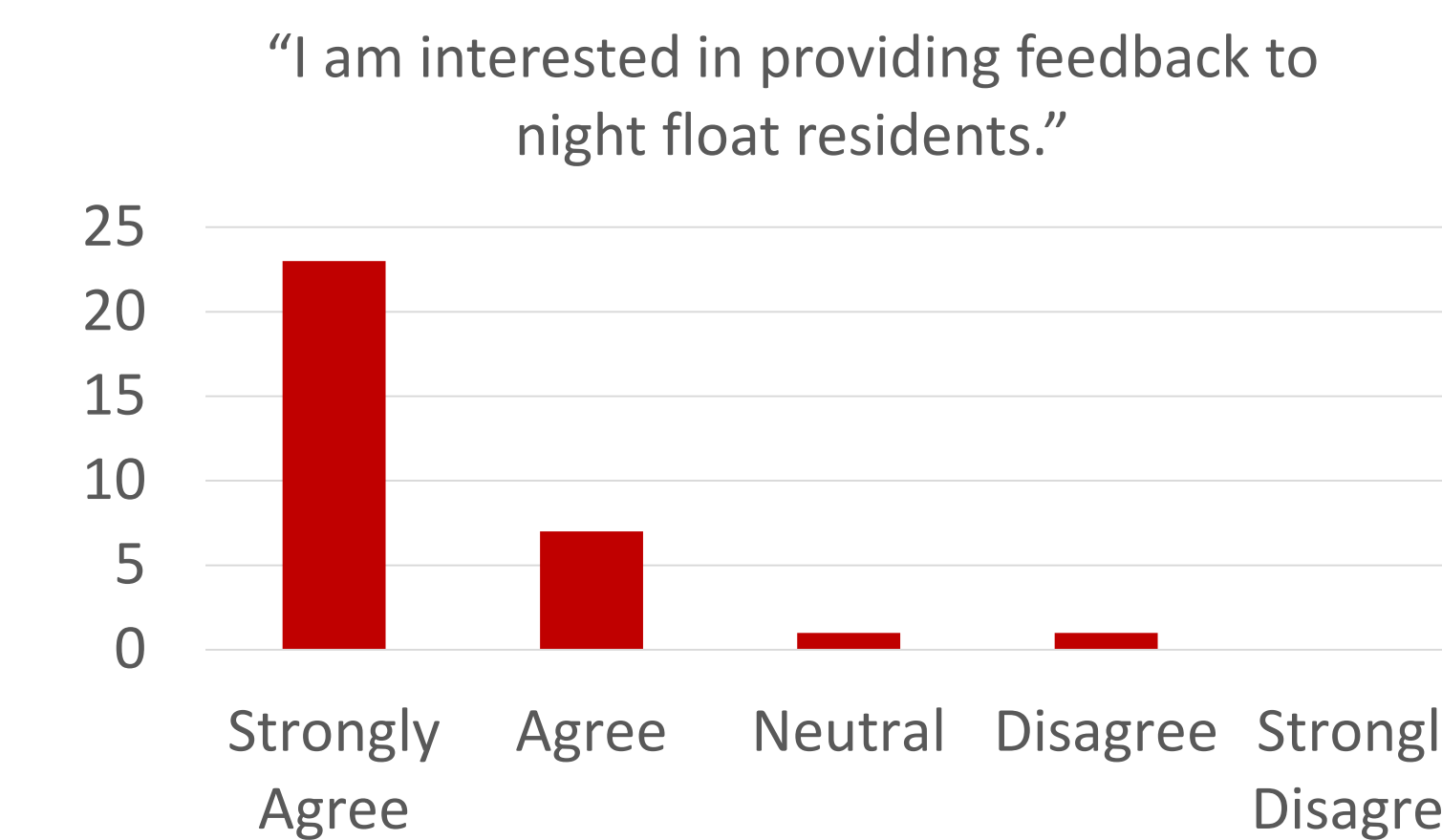


Figure 2. Attending are interested in providing night float feedback.

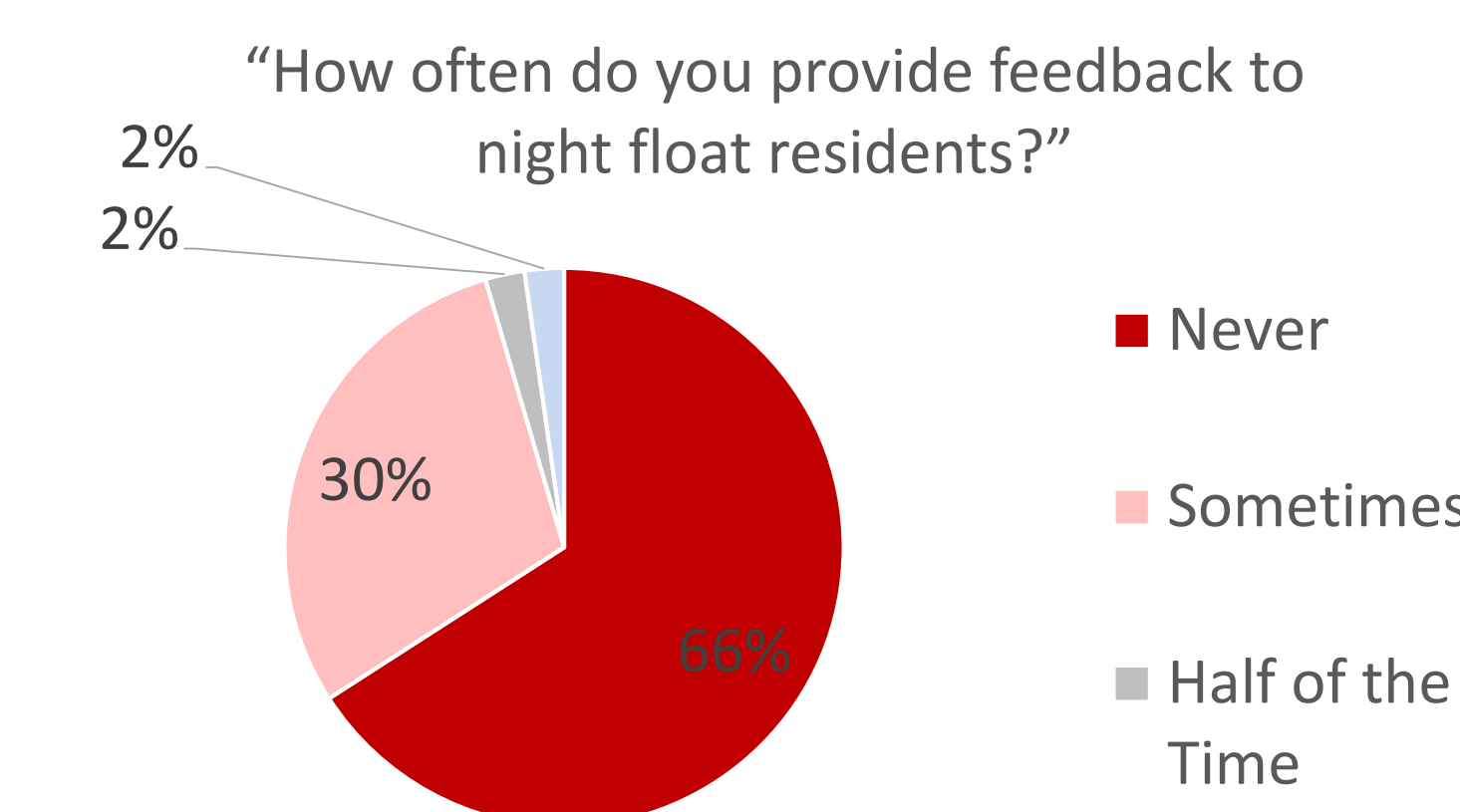


Figure 4. Most attendings do not provide feedback to night float residents.

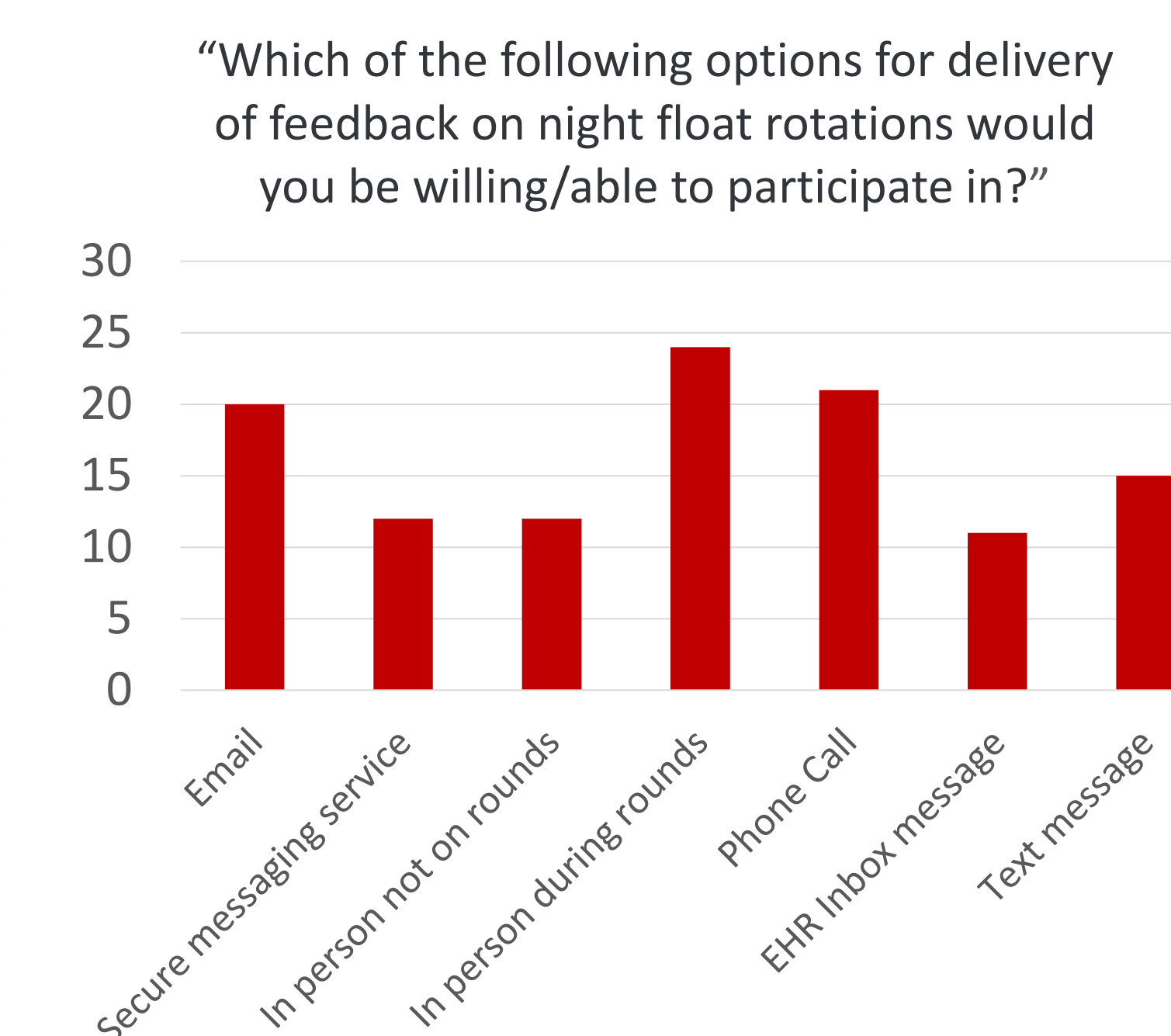


Figure 6. Attendings have a slight preference for in person feedback.

## Discussion

- The majority of residents in our program want to receive more feedback on their work during night float rotations.
- The majority of attendings are interested in providing this feedback.
- Despite this, little feedback is currently being delivered during night float rotations.
- There is a dissonance between the method but which residents and attendings want this feedback to happen.
  - Residents prefer an asynchronous method of feedback.
  - Attendings prefer in person feedback.

## Future Directions

- The next steps in this project are to utilize this data to create a formal process to deliver feedback to night float residents.
- A short trial of an email-based system was conducted earlier this year.
  - Attendings were sent an email alerting them that residents would be reaching out for feedback while on a night float rotation.
  - Residents were sent an email template to fill in with an aspect of their work in which they wanted feedback based on a specific patient case.
  - This system was utilized by less than 10% of residents during this trial.
- Further iterations of feedback processes will be tried to find a solution that increases the amount of feedback while considering scheduling and time constraints.

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## Goals and Objectives

1. Evaluate whether a **structured communication session** improves medical student communication skills with transgender and nonbinary (TGNB) standardized patients (SP's)
2. Assess whether practicing gender affirming language with peers **promotes a more inclusive environment**

## Background

- TGNB patients experience **disproportionately negative health outcomes**
- TGNB patients who have negative health care experiences can **avoid seeking medical care**
- Acknowledgement of health disparities in the TGNB community has **fueled curriculum development on** gender affirming practices
- Despite existing curricula, educators and trainees feel there is still room to grow in regards to **communication skills** and **medical knowledge**
- Providers may feel hesitation advocating for TGNB patients due to perceived lack of knowledge or communication skills

## Methods

**Primary Question:** Can a 15-minute communication drills session for medical students impact the use of gender affirming language as perceived by TGNB SP's?

**Secondary Question:** Can communication drills enhance a sense of allyship and confidence with using gender affirming language among medical students?

\***Allyship:** defined as whether students felt comfortable speaking up to a colleague or supervisor to correct the use of language that was not congruent with the SP's gender identity

- Population:** first year medical students , first month of medical school
- Location:** Perelman School of Medicine Philadelphia, PA
- Intervention:** 15 minute communication session for students
- Evaluation:** Pre- and post-survey for **medical students** and **TGNB SP's**

## Methods continued

Day 1	Intervention	Day 2	Control
	<ul style="list-style-type: none"> <li>• Students receive a standardized lecture and handout on basic communication skills and rapport building</li> <li>• <b>Students undergo 15-minute communication drill exercises in pairs</b></li> <li>• Students complete pre- and post-surveys</li> <li>• SP's complete post-surveys</li> <li>• SP's complete survey</li> </ul>		<ul style="list-style-type: none"> <li>• Students receive a standardized lecture and handout on basic communication skills and rapport building</li> <li>• Students review slides with examples of gender affirming language</li> <li>• Students complete post-survey</li> <li>• SP's complete post-survey</li> </ul>

### Goals of the Session

- Utilize communication “drills,” which are commonly used by actors to help them feel less self-conscious with their lines
- Provide examples of patient-centered, gender-affirming language
- Create a safe, non-judgmental space to practice using gender affirming language with peers before a formal SP encounter

Scenario	Goal	Example Drill
General Intro	Gain comfort in general introductions to a patient encounter	<i>“Hi, Jack Brown? My name is _____ and I am the medical student working with Dr. Johnson today. What would you like me to call you?”</i>
Incorporating Gender Affirming Language into Intros	Fluidly ask pronouns	<i>“My name is _____, the medical student who will be seeing you today. I use _____/_____ pronouns. What pronouns do you use?”</i>
You Unintentionally Misgender a Patient	Acknowledge and redirect without focusing too much attention on the error	<i>“I appreciate that you corrected me! I want to learn so that I can take the best care of you.”</i>
Correcting Someone who Misgenders a Patient	Advocating for the patient without putting the onus on them to correct the provider	<i>“Dr. Black, I just wanted to point out that Lee’s pronouns are they/them”</i>
Acknowledging Microaggressions	Educating peers or supervisors on the importance of maximizing person-centered language	<p><i>Attending: “I don’t understand this generation. He was being so sensitive”</i></p> <p>Example response:  <i>“I think it’s important to acknowledge their gender identity, because it lets us provide the best, most patient-centered care possible”</i></p>

## Results

- **80 students** out of ~120 completed the survey
- Of the 10 SP's, whom all identified as TGNB, **9 SP's** completed the survey
- Each session was composed of a ratio of **4-5 students** taking turns interviewing **1 SP**
- **90%** of students felt the drill session **improved their confidence in using gender affirming language** vs 82% in the control
- **50%** of SP's **either somewhat or strongly agreed** that students felt prepared to meet the needs of TGNB patients compared to 0% in the control
- **72%** of students reported **feeling comfortable correcting a supervisor** if a patient was misgendered compared to 54% in the control

## Reflections

- Communication drills are fast, easy-to-implement, and require little additional resources
- This adds additional educational interventions to the toolbox with the goal of improving communication with TGNB patients
- Limitations: response rate of students, small sample size, lack of control for demographic characteristics or prior education on gender affirming communication skills
- Future studies should evaluate this intervention on a larger scale

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