

# Resident Communication and Empathy in Telehealth: Analysis of Multi-Year OSCE Data

R. Brent Stansfield  
Heidi Kenaga  
Anne Messman

Graduate Medical Education Office  
Wayne State University School of Medicine

## INTRODUCTION

- Assessing medical residents' communication skills is a vital component of clinical training
- Are the same communication skills important to in-person encounters also important to telehealth encounters?
- Wayne State sole-sponsored residency programs administer communication skills OSCE encounters where standardized patients (SPs) rate first and second year residents communication skills
- During the COVID-19 pandemic, the OSCEs were held as online telehealth sessions
- We compared SP ratings of residents in in-person OSCEs (2016 to 2019, plus 2022) to telehealth OSCEs (2020 and 2021)

## METHODS

- SPs rate residents using the Kalamazoo Essential Elements of Communications Checklist, Adapted (KEECC-A): 7 items on a 5-point Likert-like scale
- 346 residents were included in the analysis, of which 201 participated twice (as first- and second-year residents)
- In 2019 through 2022, residents completed 2 subscales from the Inter-Reactivity Index (IRI): Empathic Concern (EC is feeling for others) and Perspective-Taking (PT is thinking about how others' feel)
- SP ratings from 2,283 encounters were analyzed from 9 cases, 4 used per year, involving challenging communication situations
- We tested two multilevel linear models of each item's ratings and overall mean ratings:

- **Model 1 (all years)**

Random factors: Resident ID, Case, Year  
Fixed factors: Resident program year (1st or 2nd) format (In-Person or Telehealth) program year by format interaction

- **Model 2 (2019 through 2022)**

Random factors: Resident ID, Case, Year  
Fixed factors: Resident program year (1st or 2nd) format (In-Person or Telehealth) program year by format interaction  
IRI: Empathic Concern  
IRI: Perspective-Taking  
Interaction of IRI subscores with program year and format

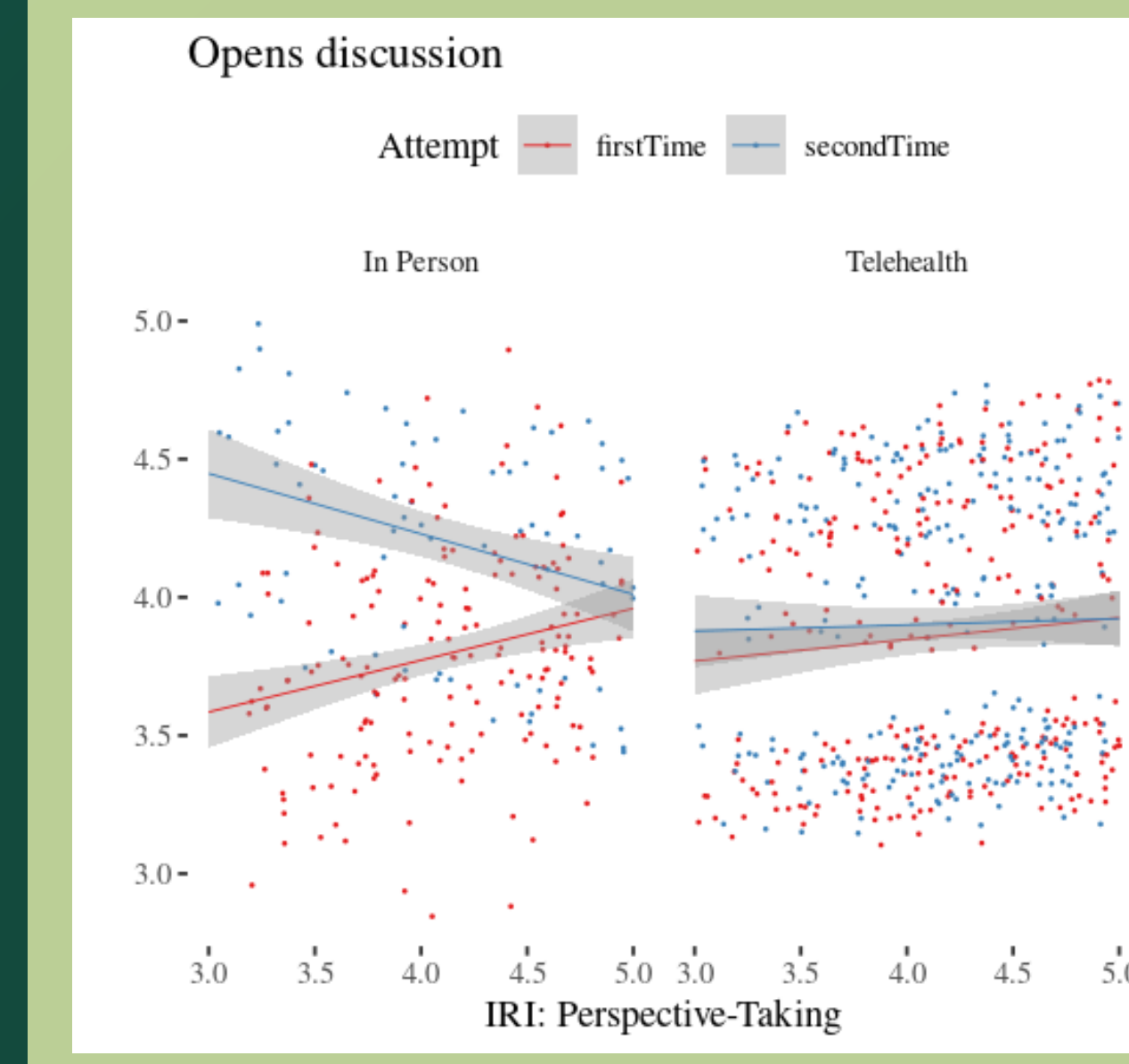
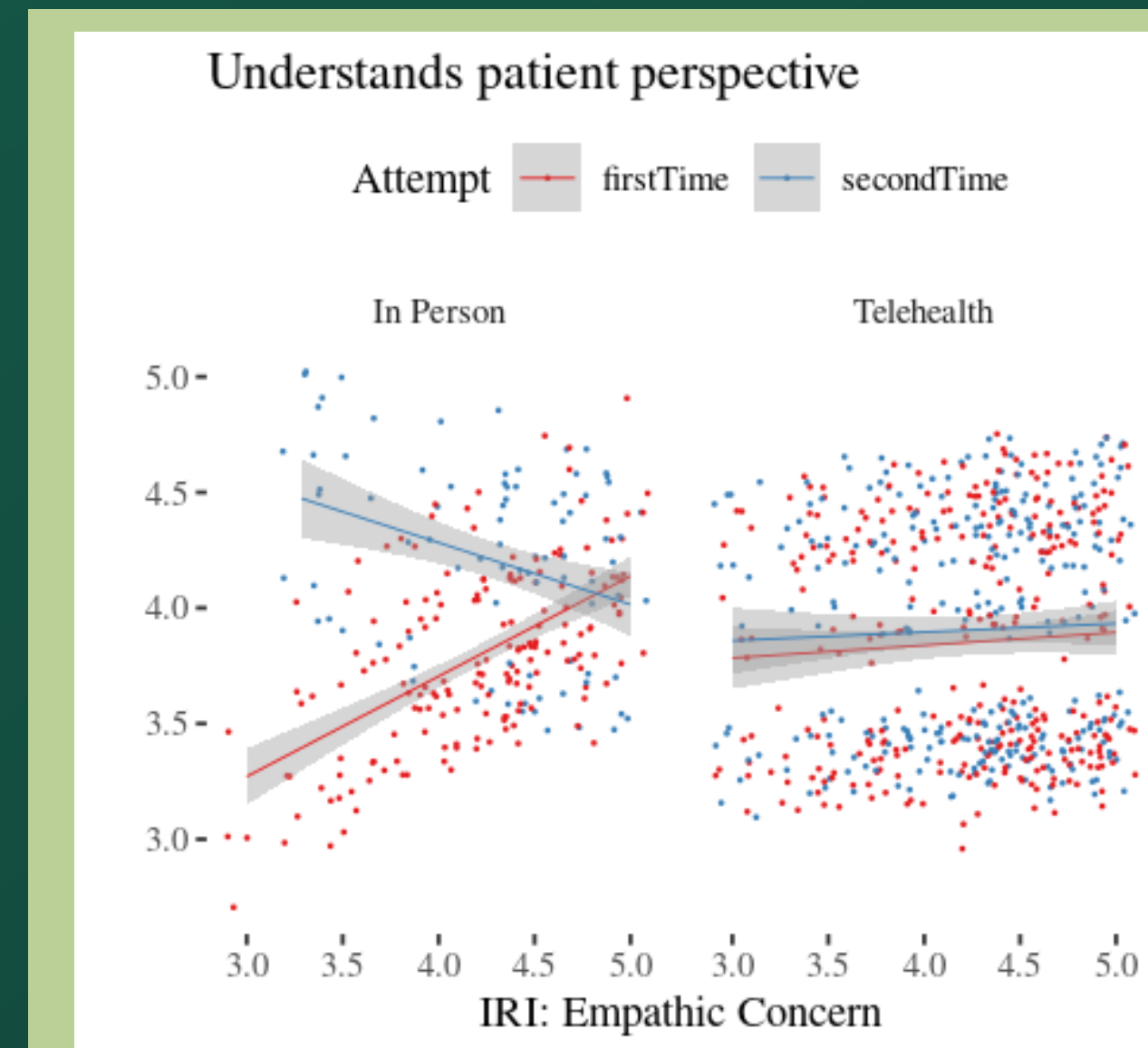
## SP Ratings in Telehealth encounters are not sensitive to resident experience (first-year vs. second-year) or resident empathy (IRI Empathic Concern or Perspective-Taking).

### In-Person encounters:

Lower SP ratings than telehealth encounters

First-year residents with higher empathy scores get higher SP ratings

Second-year residents get higher ratings than first-year residents



### Telehealth encounters:

Higher SP ratings than In-Person encounters

SP ratings are unrelated to resident empathy scores

First-year and second-year residents get the same SP ratings

## The 7 Kalamazoo Essential Elements of Communication

	Builds relationship	Opens discussion	Gathers information	Understands patient perspective	Shares information	Reaches agreement	Provides closure
<b>Model 1</b>		Higher ratings in Telehealth	Higher ratings in Telehealth	Higher ratings in Telehealth 2nd year residents get higher ratings	Higher ratings in Telehealth	Higher ratings in Telehealth 2nd year residents get higher ratings	Higher ratings in Telehealth 2nd year residents get higher ratings
<b>Model 2</b>		2nd year residents get higher ratings	Higher ratings in Telehealth	Higher ratings in Telehealth 2nd year residents get higher ratings than 1st In-Person only 1st years' In-Person ratings rise with IRI: EC		2nd year residents get higher ratings than 1st In-Person only	2nd year residents get higher ratings 1st years' ratings rise with IRI:PT

## RESULTS

- The effects reported here control for Case difficulty, Year-to-Year differences, and Resident ID using Restricted Estimation with Maximum Likelihood (REML)
- Case and Year random effects each accounted for about 15% to 20% of rating variance. Resident ID accounted for about 10%.
- SP ratings did not differentiate resident year or empathy levels in Telehealth, but did In-Person
- SPs gave higher ratings in Telehealth for most KEECC-A items
- Understanding patient perspective ratings correlated with Empathic Concern for 1st years In-Person, not for 2nd years, not in Telehealth
- Builds relationship, Gathers information, and Shares information were least related to year and empathy scores
- Opens discussion, Understands patient perspective, Reaches agreement, and Provides closure were related to resident year

## CONCLUSIONS

- Communication skills OSCEs are not measuring the same thing in Telehealth encounters as in In-Person encounters
- 1st year residents with low empathy levels get lower ratings, but by their 2nd year they get high ratings. This suggests interns learn communication skills in practice
- Telehealth OSCEs do not measure this effect suggesting SPs cannot detect empathy or communication skill in this format, that Telehealth requires different skills than In-Person.
- Residency programs should develop separate Telehealth communications curricula and assessments