Evaluating Inclusive Clinical Skills with Large Video-Coding Datasets

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Disclosures

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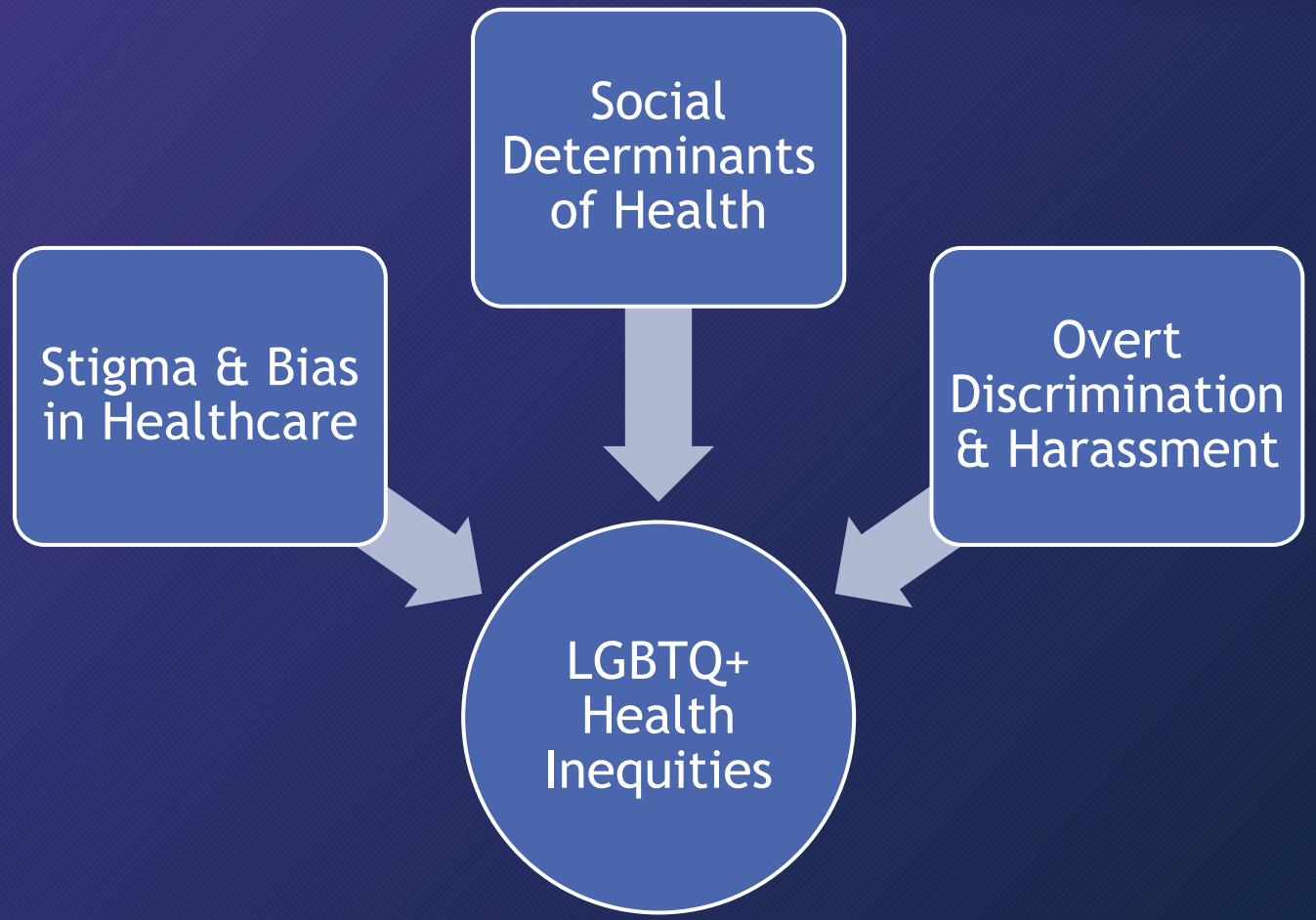
Learning Objectives

After this presentation, attendees will be able to:

- Describe types of microaggressions that are commonly made by medical students during clinical skills assessments with LGBTQ+ standardized patients
- Identify a framework to evaluate LGBTQ+ microaggressions in healthcare training settings with large video-coding datasets
- Discuss opportunities to close the gaps related to LGBTQ+ microaggressions by assessing inclusive skills

LGBTQ+ populations experience significant health disparities



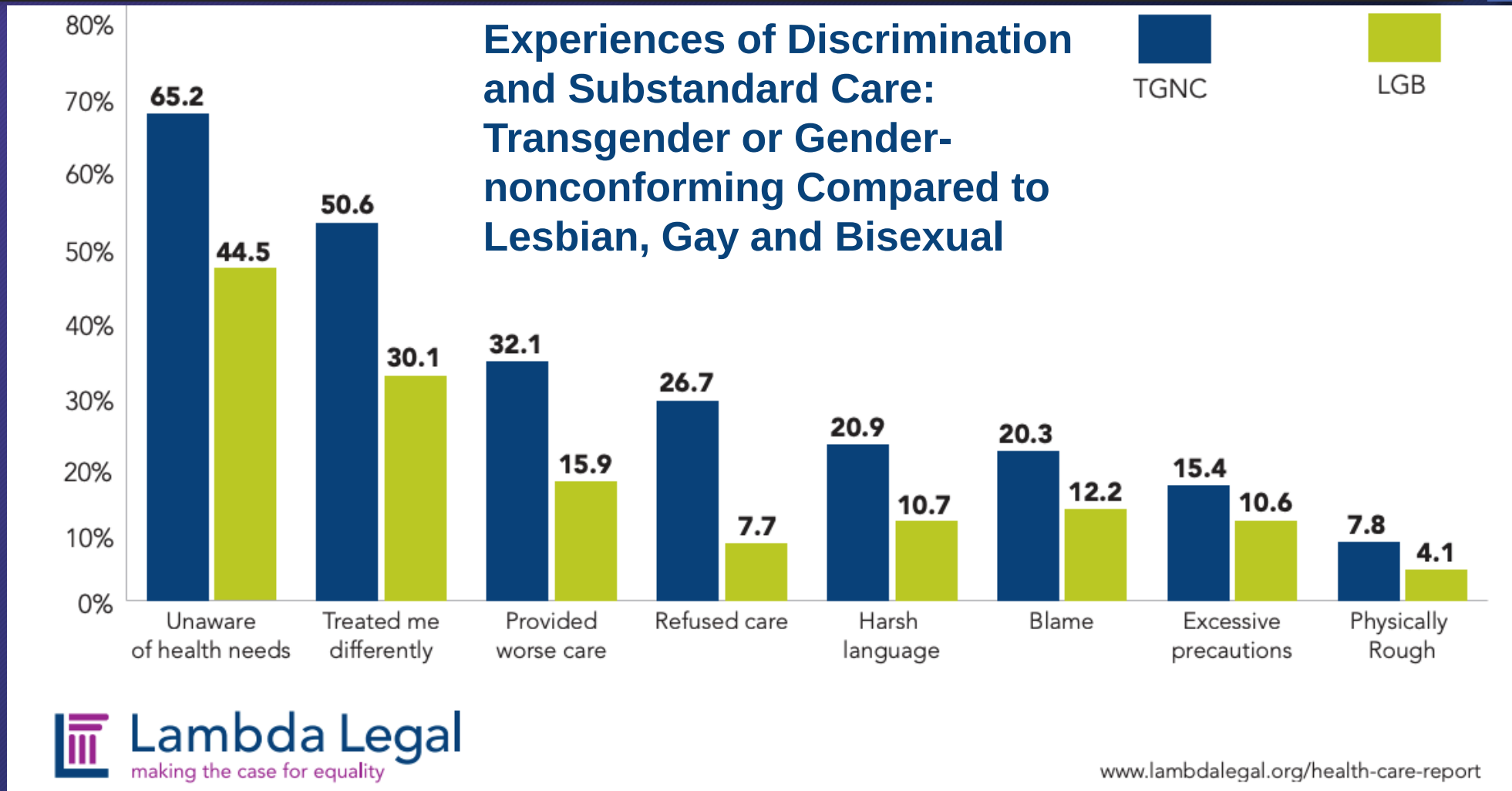
LGBTQ Health Disparities Snapshot

Higher rates of:	
Unemployment/Poverty	
Bullying/Family rejection Interpersonal violence/Hate crimes	
Anxiety/depression	Suicide attempts
Tobacco use	Substance abuse
Body image issues	Eating disorders
HIV and other STIs	Cancer
Discrimination in Health Care	

Lower rates of:
Health insurance
Preventive health care
Cancer screening
Disparities most severe among trans communities and persons of color

Healthy People 2020. Lesbian, Gay, Bisexual, and Transgender Health. https://www.healthypeople.gov/2020/topics-objectives/topic/lesbian-gay-bisexual-and-transgender-health
Lambda Legal. When Health Care Isn't Caring: Lambda Legal's Survey on Discrimination Against LGBT People and People Living with HIV. New York: Lambda Legal; 2010. www.lambdalegal.org/health-care-report.

Disparities are most severe among trans and gender-nonconforming communities



Microaggressions

"Subtle form of discrimination, often unconscious or unintentional, that communicate hostile or derogatory messages, particularly to and about members of historically marginalized social groups."

Nadal, Whitman, Davis, Erazo, & Davidoff, 2016; Smith & Turell, 2017, Sue et al., 2007

Ryan Hawk: montanakaimin.com

Limitations of current microaggression studies

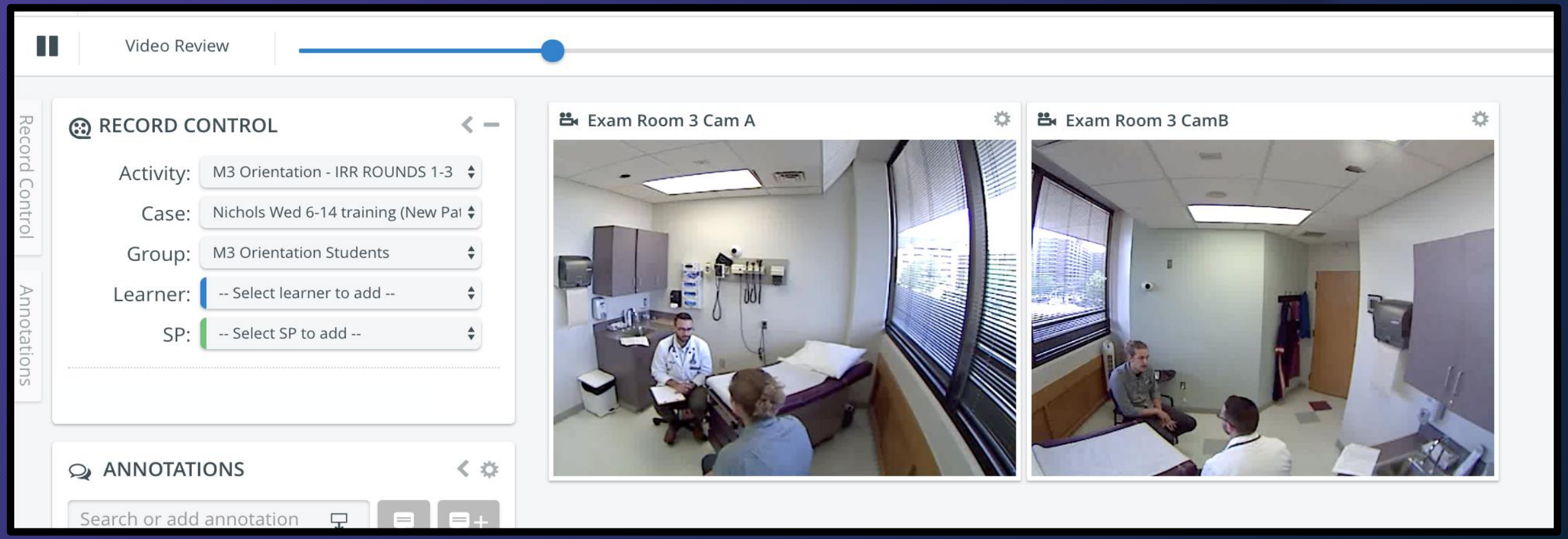
Broad focus outside of clinical settings

Focus on qualitative data

Scales require self-report

➔ *We want a healthcare-specific measure that can be used for observation in medical training*

Recorded Clinical Skills Assessments



Training video of standardized patient (SP) encounter with a 3rd year medical student.

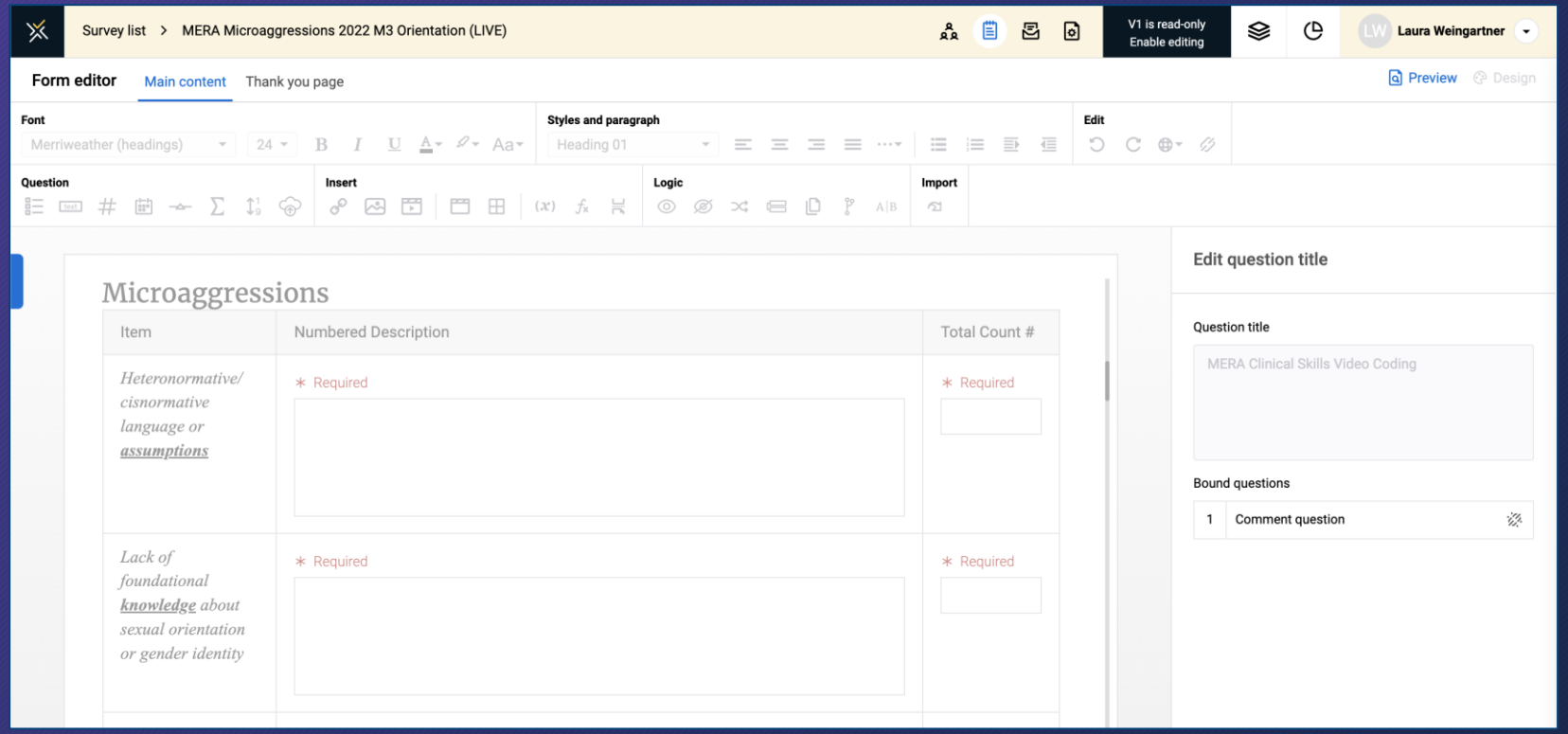
Medical Education Research Award (MERA) Program Design

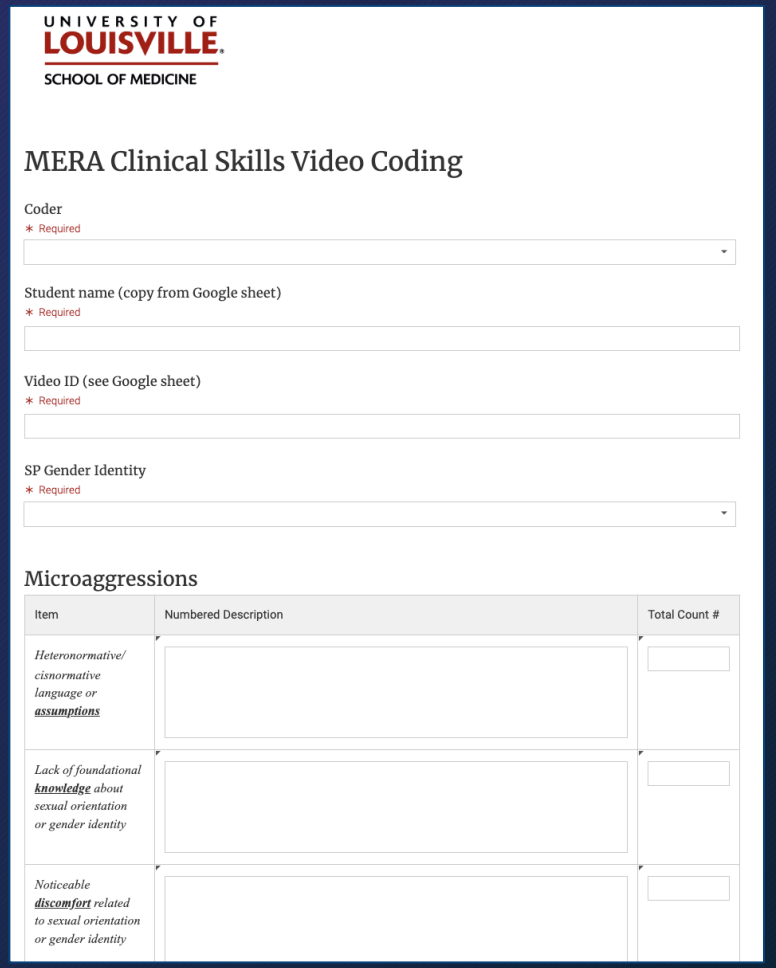
Pre-Medical Student Research Assistants	**Video Code Medical Student SP encounters**	**Pre-Medical Students Assessed Pre/Post**

Easily replicated at other institutions

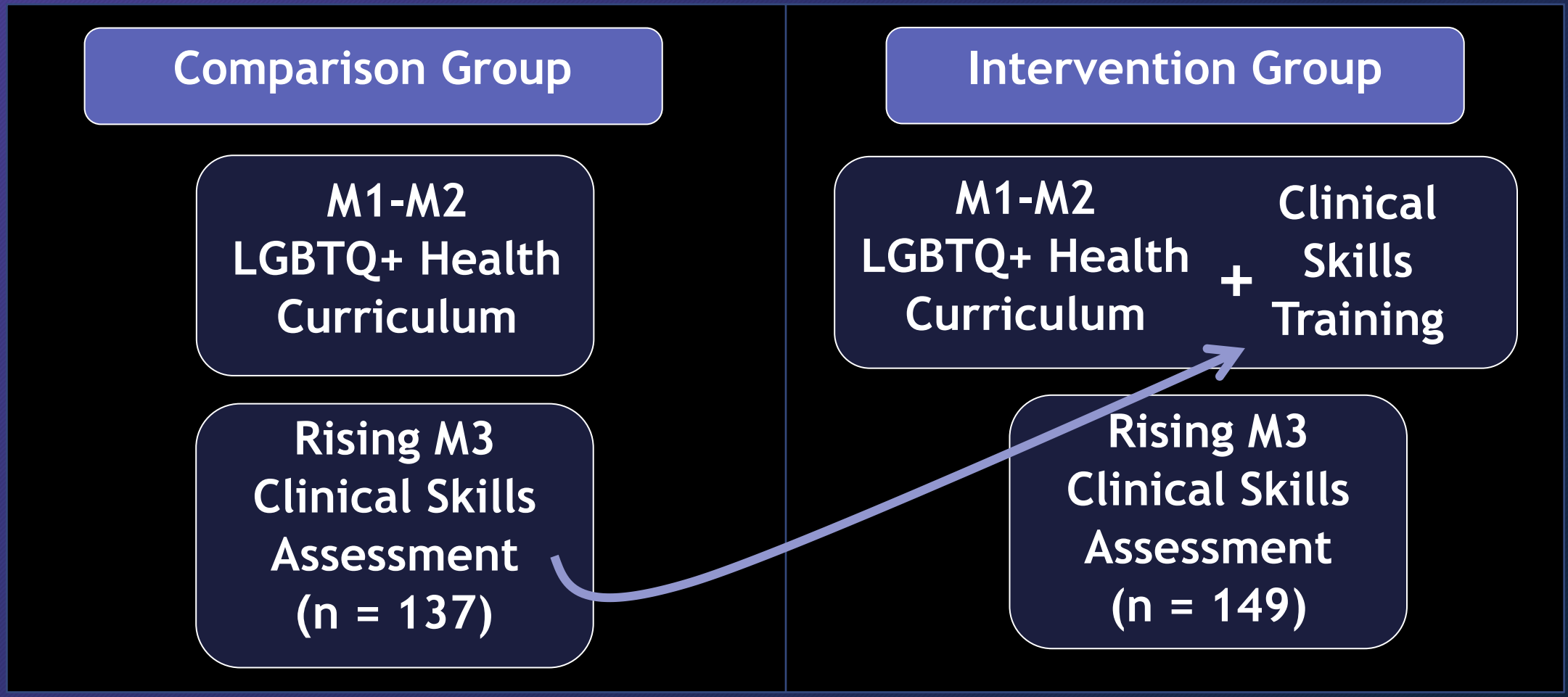
Medical Education Research Award (MERA) Program Design

blueX

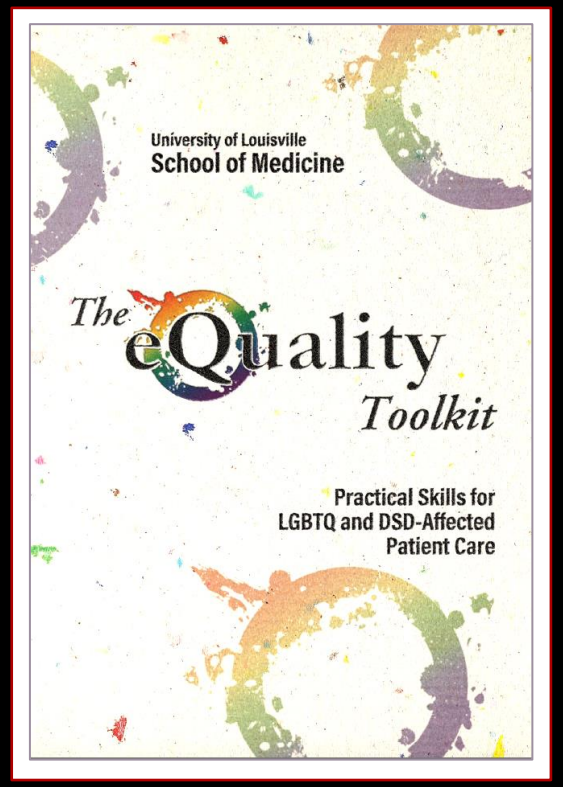




Clinical Skills Assessment Study



Intervention: The eQuality Toolkit evidence-based best practices with specific, clinical skills training



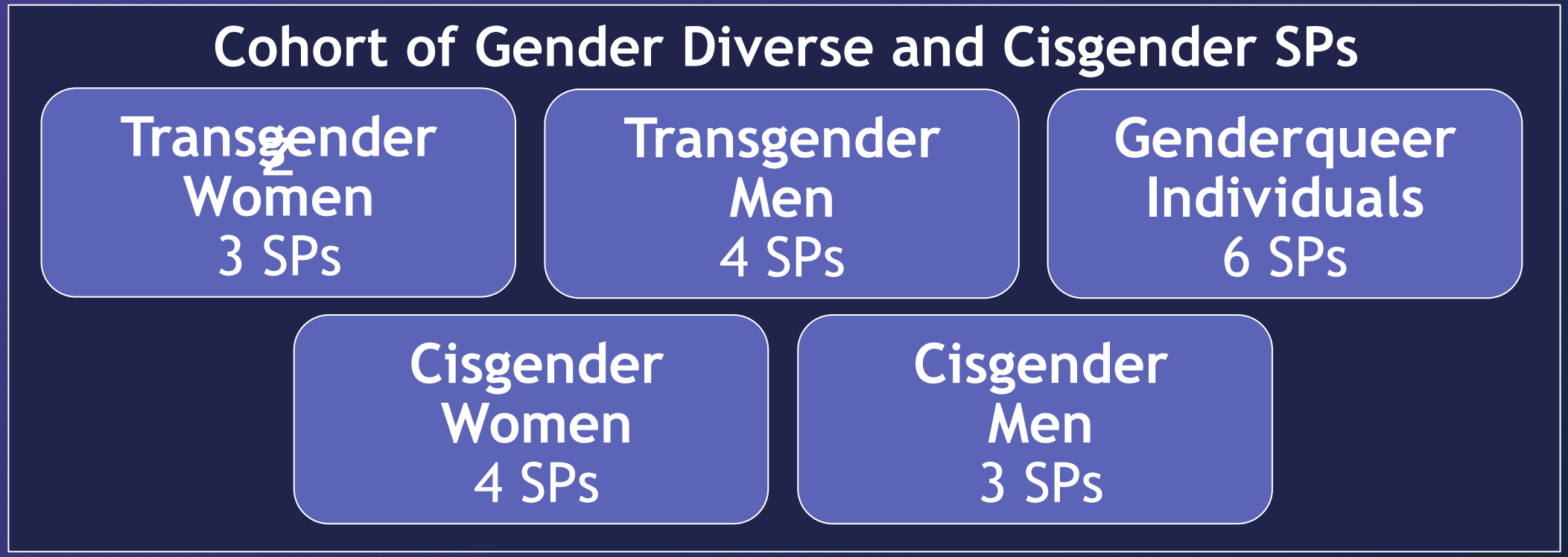
- Inclusive Communication Skills
- Gender-Affirming Care
- Preventive Care
- Social Determinants of Health
- Sensitive Physical Exams

Standardized Patient Assessment

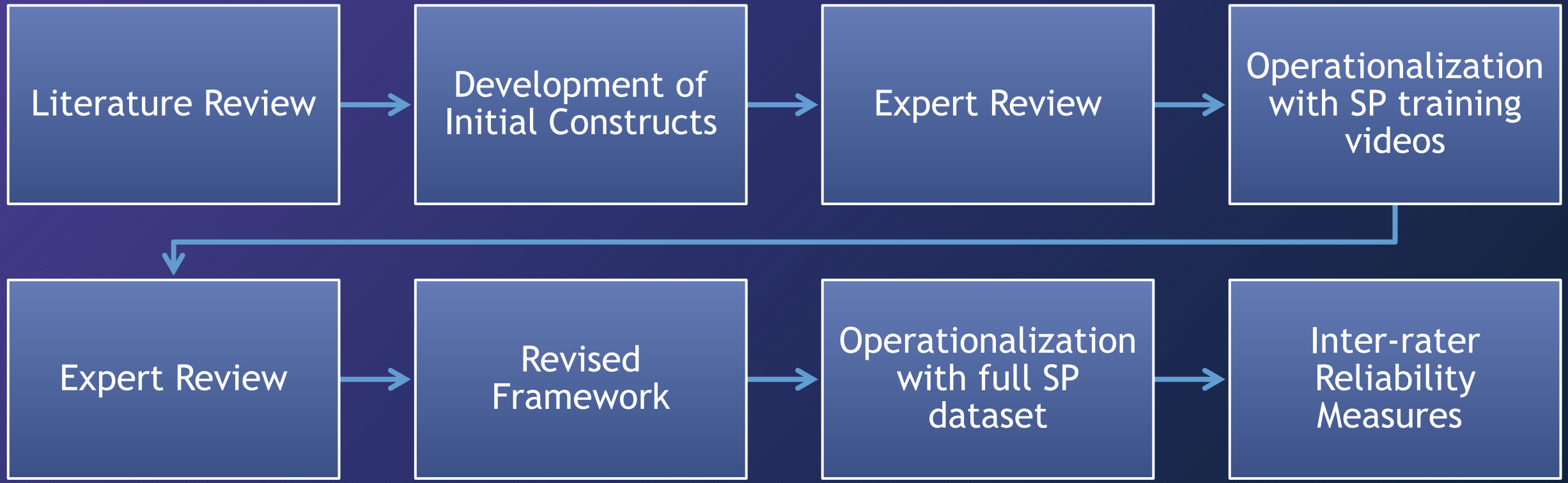
- Standardized patient (SP) case with iterations varying only by gender identity and sex assigned at birth
- SPs establish primary care and report same health history to blinded students
- Weingartner et al. 2022 *MedEdPORTAL* Gender-Affirming Care with Transgender and Genderqueer Patients: A Standardized Patient Case to Identify Trainee Bias

Case Detail	Patient Case Iteration					
	Trans Man	Genderqueer Female SAAB	Cis Female	Trans Woman	Genderqueer Male SAAB	Cis Male
Patient Pronouns	*He/him*	*They/them*	*She/her*	*She/her*	*They/them*	*He/him*
Patient Sex Assigned At Birth	*Female*			*Male*		
Current Sexual Partner SAAB	*Male*					*Female*
Previous Sexual Partners SAAB	*Male & Female*		*Male*	*Male & Female*		*Female*
Patient Sexual Orientation	*Queer*		*Straight*	*Queer*		*Straight*
Hormone Use	*Testosterone*		*Estrogen*			*Testosterone*
Reason for Hormone Use	*Masculinize*		*Acne*	*Feminize*		*Gain muscle*

Standardized Patient Assessment



Microaggressions Framework Development



Secondary Analysis Training

Nine coders were trained to observe microaggressions with the framework

Coders + investigators classified a set (n=18) of microaggression descriptions

Group reached near-perfect level of inter-rater reliability (Krippendorff's α = 0.92)

= *Microaggressions can be categorized reliably with this framework*

Secondary Analysis Data Collection

Video coders sampled all recorded SP encounters

Coders described + classified each microaggression

Two coders reviewed to determine presence/absence

Inter-rater reliability measured with Kappa

Kappa statistic varies from 0 to 1, where:

0 = agreement equivalent to chance

0.1 – 0.20 = slight

0.21 – 0.40 = fair

0.41 – 0.60 = moderate

0.61 – 0.80 = substantial

0.81 – 0.99 = near perfect

1 = perfect agreement

= *Microaggressions can be observed reliably with this framework*

Framework

- We identified 8 items around LGBTQ+ healthcare microaggressions.

Heteronormative / Cisnormative Language or Assumptions

Lack of Foundational Knowledge About Sexual Orientation or Gender Identity

Noticeable Discomfort Related to Sexual Orientation or Gender Identity

Referral to Another Provider Based on Sexual Orientation or Gender Identity

Stereotypes about Sexual Orientation or Gender Identity

Incorrect Identifying Information

Excessive Focus on Sexual Orientation or Gender Identity

Homophobic or Transphobic Language

Framework Constructs

Heteronormative / Cisnormative Language or Assumptions
(κ = 0.80)

Using biased language in which LGBTQ+ identities are implied as unnatural or abnormal

Example: a student assumed that a masculine-presenting transgender man was cisgender and discussed prostate screening recommendations.

Framework Constructs

Lack of Foundational Knowledge About Sexual Orientation or Gender Identity

(κ = 0.61)

Communicating a lack of knowledge about LGBTQ+ identities and/or related healthcare needs, often requiring education from the patient

Example: The student told the patient that when it comes to transgender identities, "I always get confused, and I'm like 'What's going on??"

Framework Constructs

Noticeable Discomfort Related to Sexual Orientation or Gender Identity
($\kappa = 0.85$)

Displaying discomfort such as tense body language, difficulty speaking, or avoiding eye contact

Example: After learning the patient's identity as a transgender woman, the student stopped the conversation, stared at the patient for a few seconds, laughed nervously, apologized, and then asked patient for her pronouns.

Framework Constructs

Referral to Another Provider Based on Sexual Orientation or Gender Identity

($\kappa = 0.91$)

Referring LGBTQ+ patients for care that could otherwise be completed by the provider

Example: After telling the patient that he "doesn't know anything about transgender health care," the student then referred the patient to endocrinology.

Framework Constructs

Stereotypes about Sexual Orientation or Gender Identity

($\kappa = 0.82$)

Applying a generalized conception of LGBTQ+ identities while talking with the patient or making decisions about health services or needs

Example: After the patient disclosed his identity as a transgender man in a relationship with a man, the student prompted the patient for STI/HIV testing without first discussing the patient's sexual health practices.

Framework Constructs

Incorrect Identifying Information

($\kappa = 0.67$)

Misgendering, misnaming, or addressing a patient with incorrect honorifics verbally or within health records

Example: Student assumed incorrect honorifics ("Hi Ms. Nichols") at the start of an encounter with a patient who identified as genderqueer.

Framework Constructs

Excessive Focus on Sexual Orientation or Gender Identity

($\kappa = 0.73$)

Overattributing health concerns to or spending a disproportionate amount of time discussing a patient's identity

Example: Without giving the patient context, the student asked a transgender patient whether friends and family knew about his transition and how they felt about his transition, which was perceived to be curiosity-driven.

Framework Constructs

Homophobic or Transphobic Language

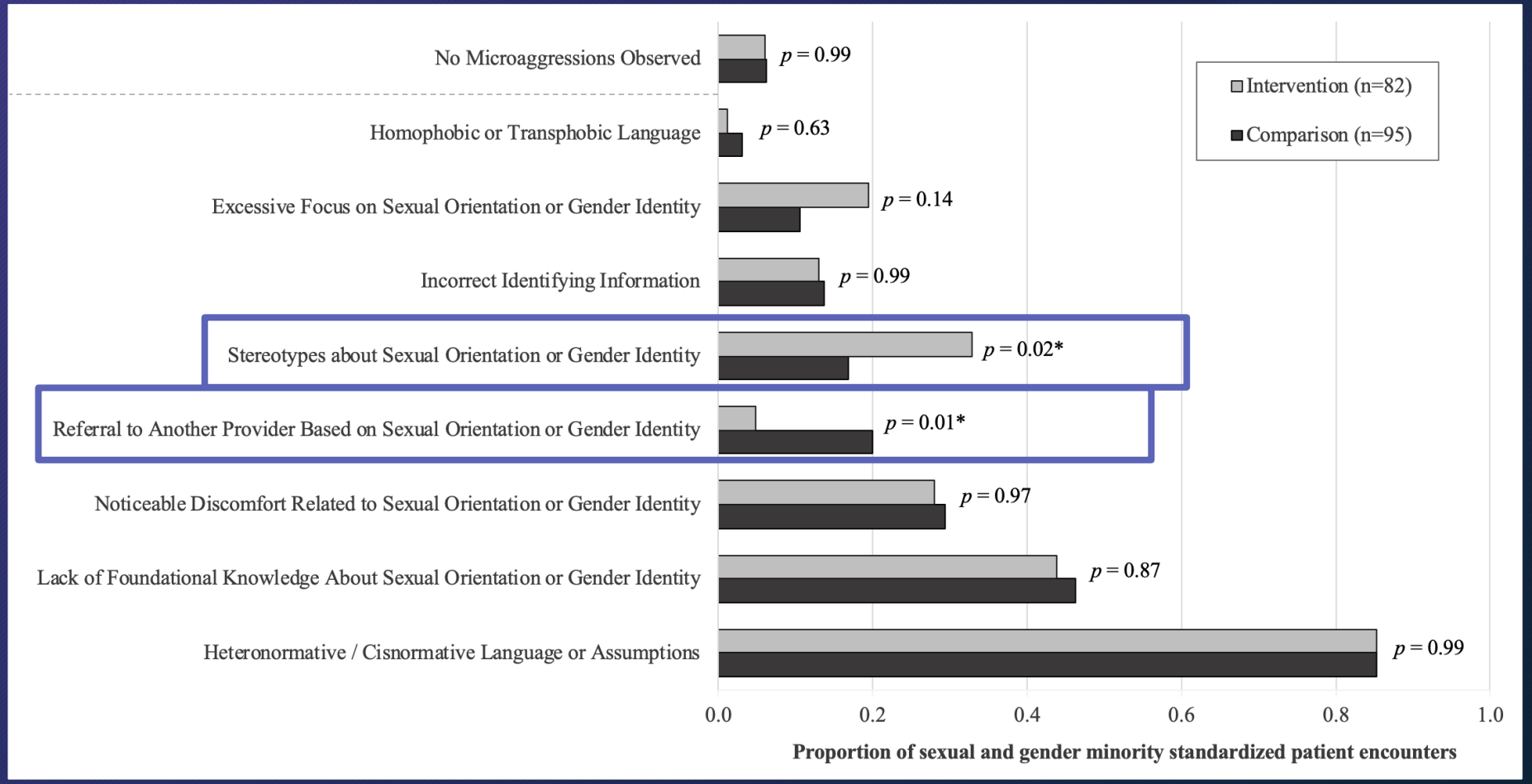
($\kappa = 0.71$)

Implying or stating that LGBTQ+ identity is invalid or shameful

Example: Student was unwilling to prescribe hormones because of personal beliefs: "I think we were made with a certain gender and trying to change that…is in violation of the way that things were supposed to work, so I'm not able to help you with those medications."

Outcomes: Little effect on subtle biases

- Microaggressions observed in nearly all encounters (94%)
- Hetero/ cisnormative language and assumptions are most common (85%)



Implications & Mitigation

Create clinical skills assessment expectations for students to:

Collect name, pronouns, sexual orientation, and gender identity for every patient

Ask open-ended questions in encounters

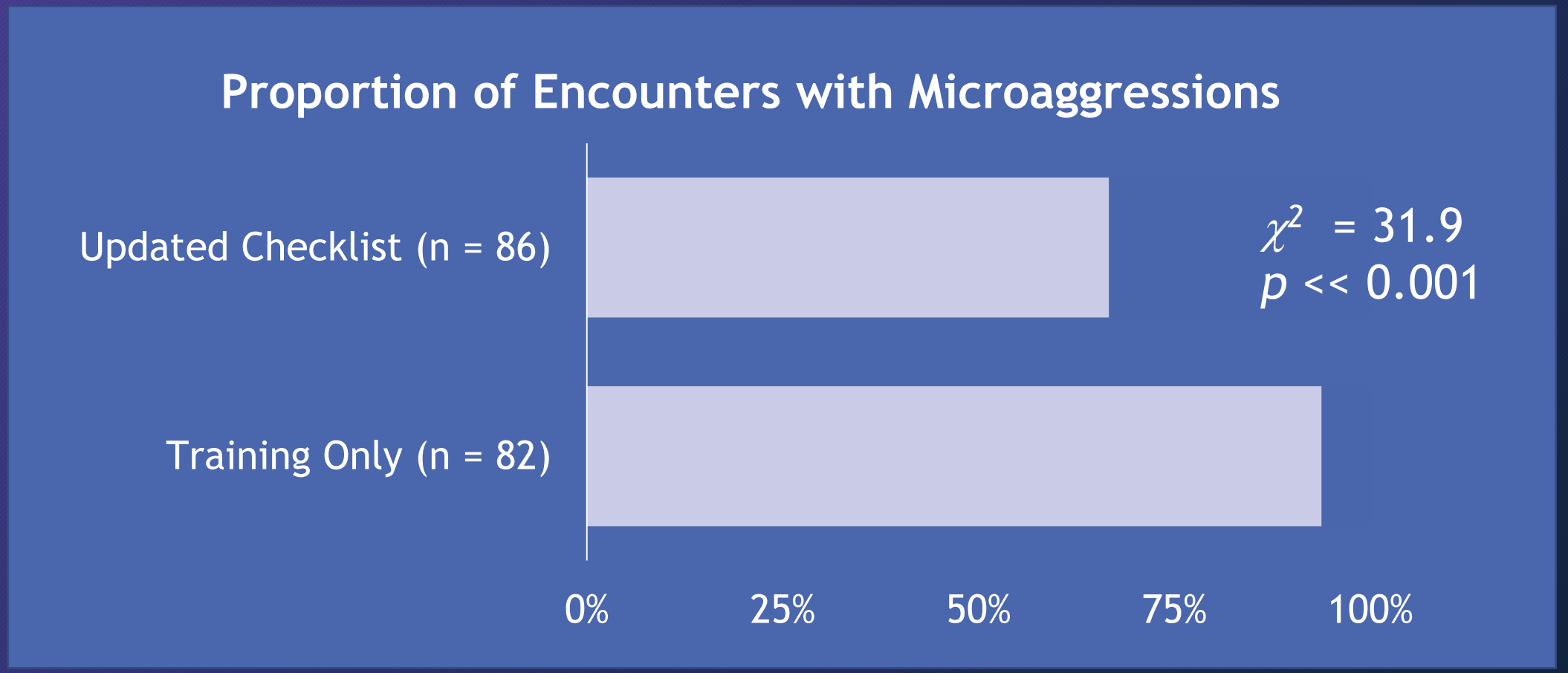
Ask patients about specific behaviors and risk factors before suggesting care

Use two-step gender identity questions

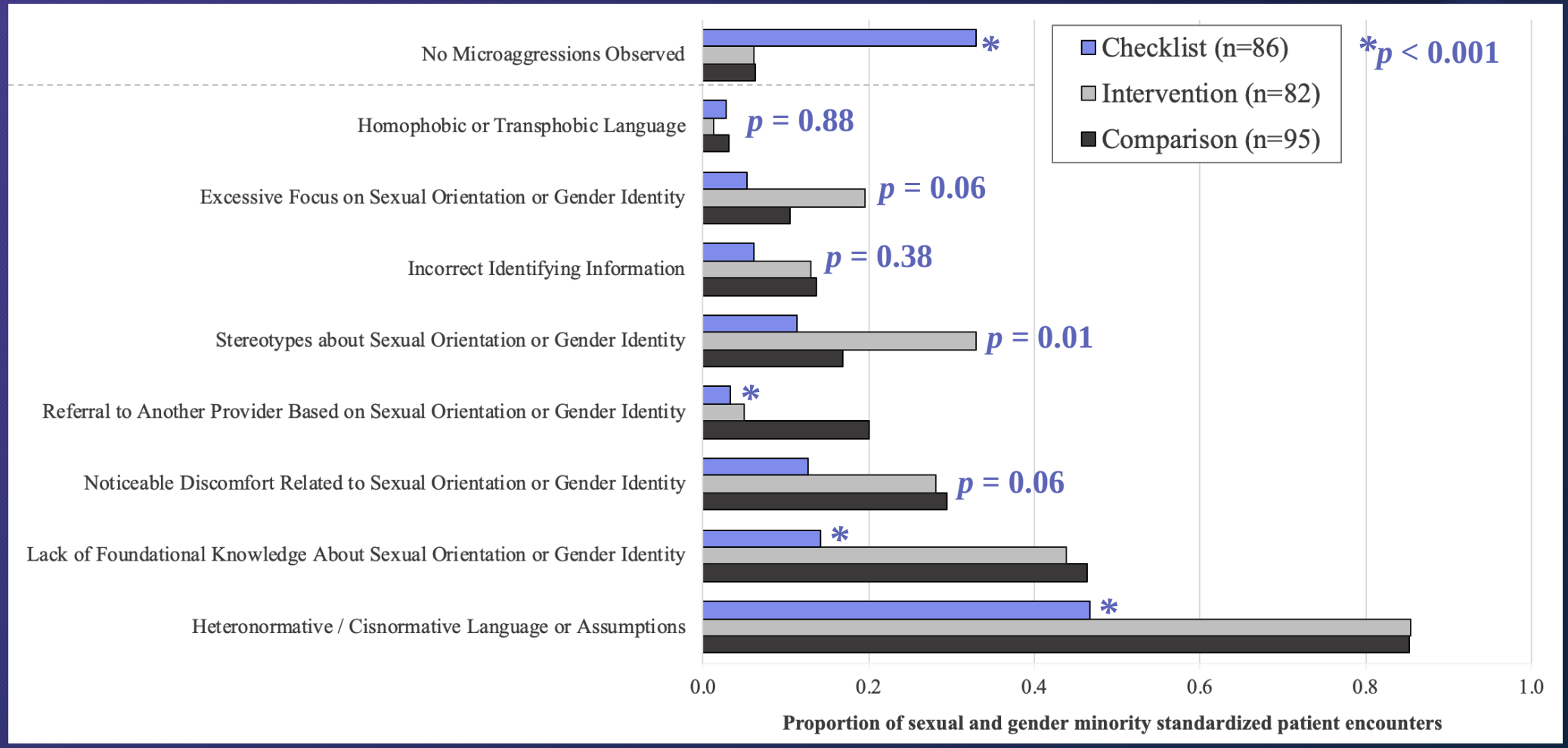
Connect specific risk factors, not identity, to recommendations

Ensure identity questions are directly related to care + explicitly explain connection to patients

After integrating inclusive clinical skills on checklist assessments



Microaggressions decrease across categories after assessing clinical skills



Improved Coder LGBTQ+ Health Knowledge

Identify Explicit Behaviors

Modeling

Normalize Skills

$t = 2.2$, $p = 0.016$

Conclusion & Reflection

LGBTQ+ healthcare microaggressions are pervasive

Addressing microaggressions requires practice & accountability

Video coders benefit from evaluating clinical skills

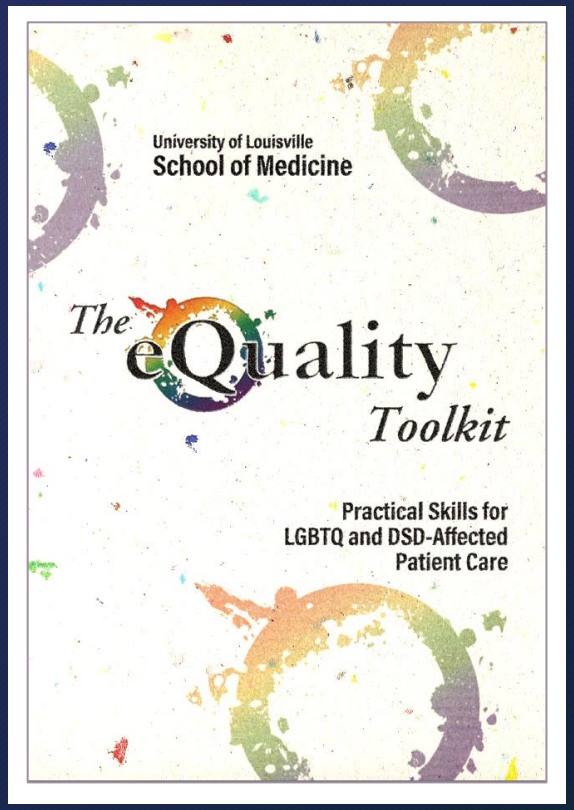
Future Directions

Do patient experiences align with observers?

Is there a dosage effect overall or from specific categories?

Acknowledgments & Resources

- We thank Explorance and the Bluenotes Community for the Faculty Research Grant, which funded this project
- Thank you to Gita Jaikumar, Hayden Norris, Jacqueline Tran, Elisha Vanzant, Bhawana Yadav, Emily Noonan, and previous MERA students for coding efforts



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