

Prevalence and Trajectory of Depressive Symptoms Among Sexual Minority Physicians During Training

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Background

- Medical training is a period associated with high stress and risk of depression
- The LGBTQ+ population experiences higher rates of depression compared with their heterosexual peers
- Sexual minority physicians may be at particularly high risk of depression
- No previous work has directly studied depressive symptoms in sexual minority trainees
- Questions: Is there a difference between sexual minority and heterosexual physicians in severity of depression entering internship and during intern year? And are there differences in the trajectory of depressive symptoms between sexual minority and heterosexual interns?

Methods

Measures

- Depressive symptoms: PHQ-9 every 3 months
- Self-reported sexual orientation at baseline

Analysis

- t-tests to assess for differences in depressive symptoms at each time point
- Linear mixed model to assess differences in trajectories between sexual minority and heterosexual interns

Sample

- 2016, 2017, 2018 Intern Health Study cohorts
- 8201 participants from 537 different institutions
- 7.2% “sexual minority” (“gay or lesbian”, “bisexual”, “other”), 92.8% “heterosexual”

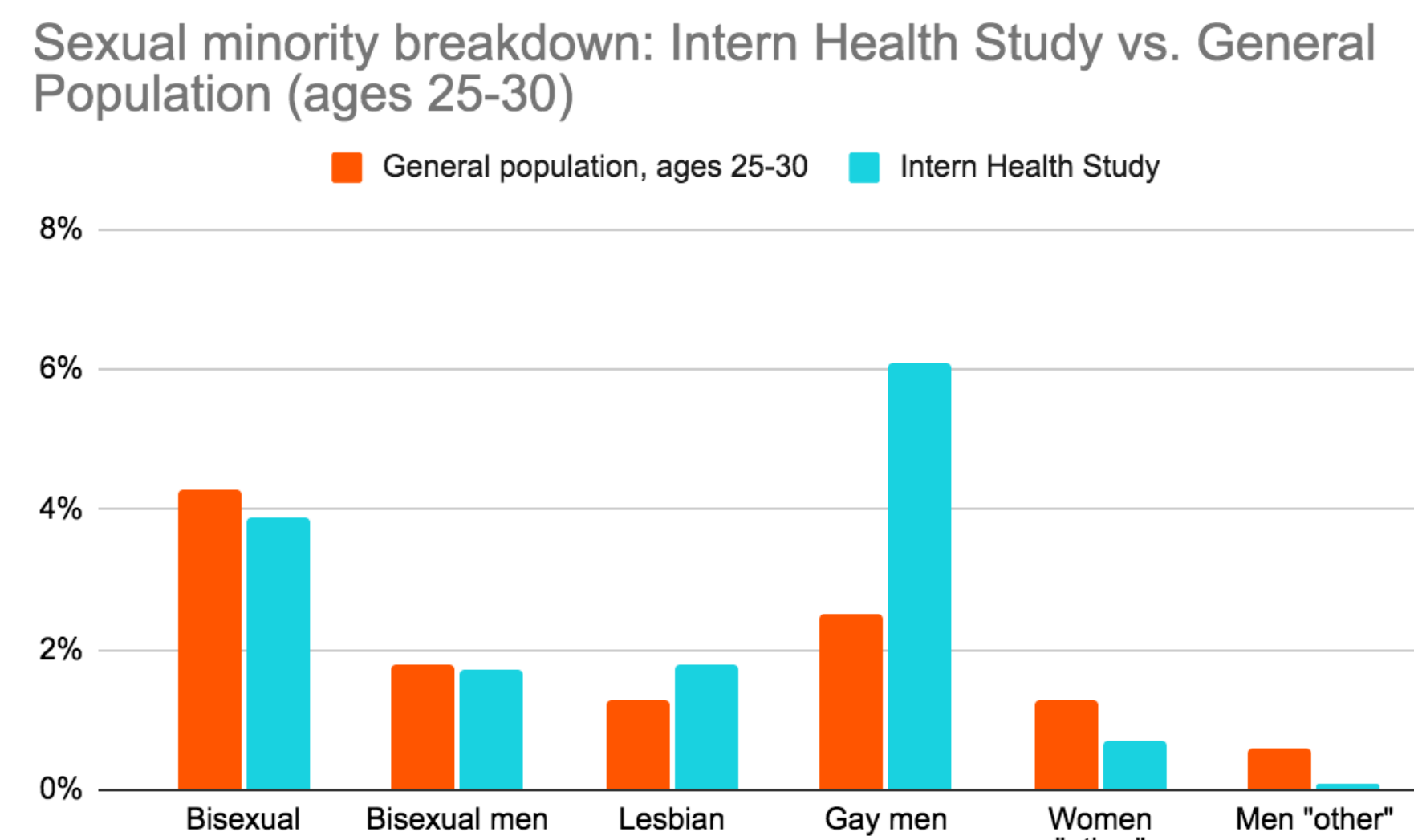


Figure 1: Breakdown of men and women identifying as sexual minorities in the general population (age group 25-30 years old) versus in our cohorts of the Intern Health Study.

Heterosexual and Sexual minority

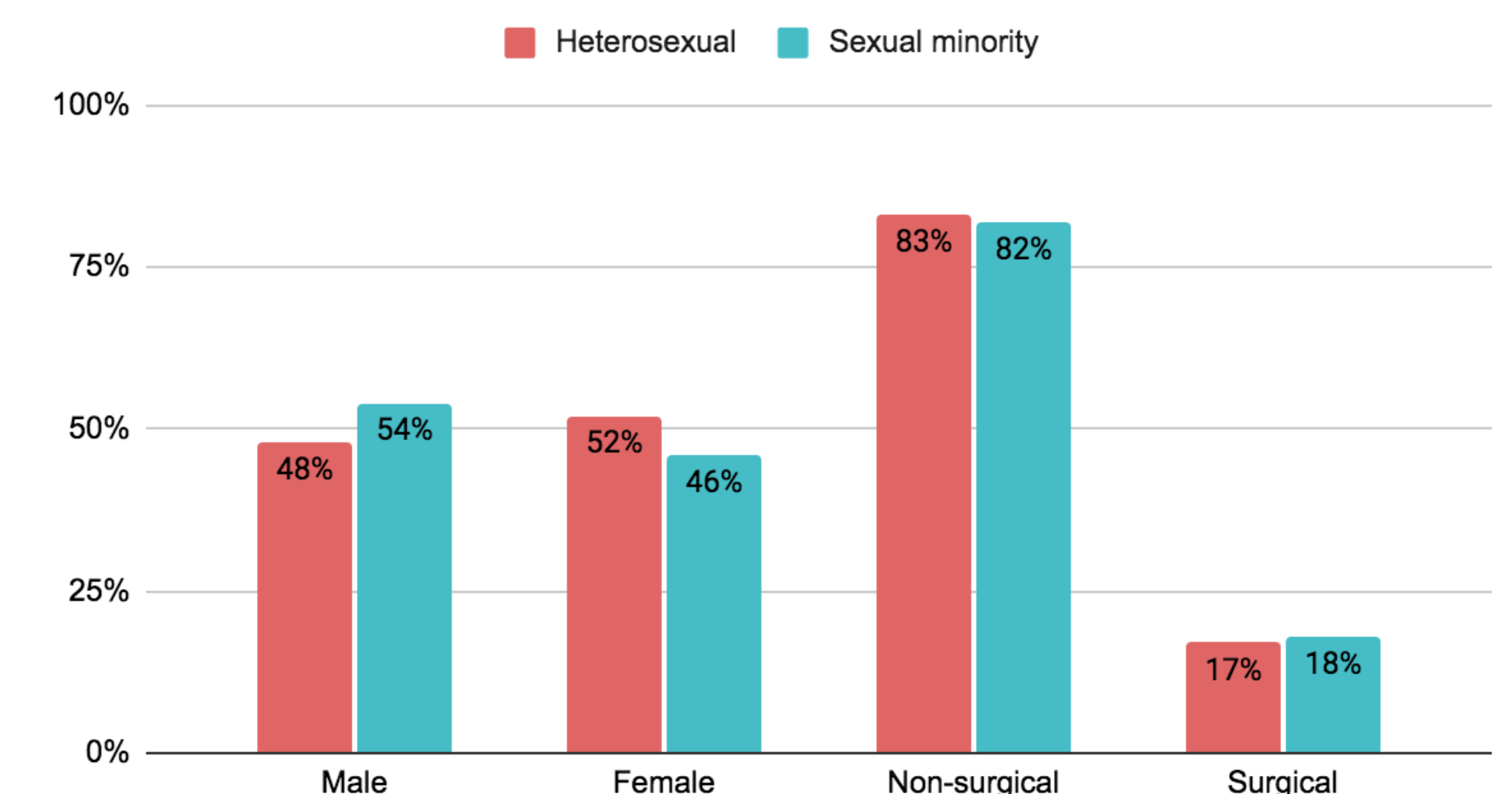


Figure 2: Breakdown of participants by sex and specialty. A higher proportion of sexual minority interns were male as compared to heterosexual interns ($p=0.0077$). For specialty, there was no difference found between the proportion of heterosexual interns and sexual minority interns going into surgical specialties ($p=0.707$).

Results

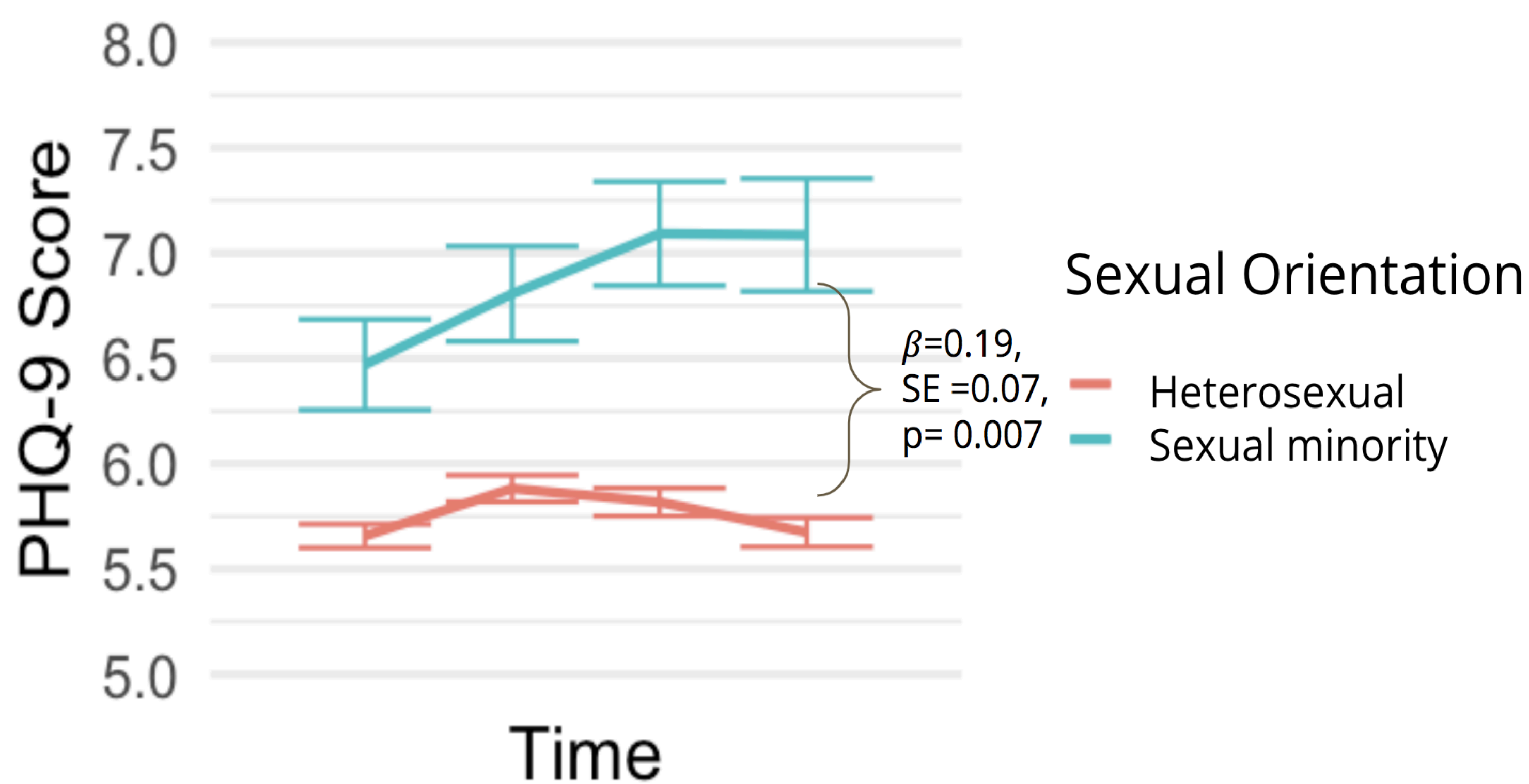


Figure 3: Trajectory of depressive symptoms (PHQ-9 scores) from Quarter 1 (September) to Quarter 4 (June) based on sexual orientation.

Predictors	Estimates	CI	p-value
(Intercept)	2.87	(2.45, 3.30)	<0.001
Time	0.10	(0.07, 0.14)	<0.001
LGB status (sexual minority)	0.46	(-0.09, 1.02)	0.103
Sex	0.93	(0.75, 1.11)	<0.001
Specialty (non surgical)	-0.26	(-0.50, -0.02)	0.035
Work hours	0.04	(0.04, 0.05)	<0.001
Sleep hours	-0.21	(-0.24, -0.18)	<0.001
Time*LGB status (sexual minority)	0.19	(0.05, 0.32)	0.006

Table 1: Outcome of linear mixed model. Sexual minority physicians experience greater increases in depressive symptoms over the course of intern year (Time*LGB status), even when accounting for sex, specialty, work hours, and sleep hours.

Discussion

- Sexual minority interns came into internship with higher PHQ-9 scores than their heterosexual peers
- The difference in PHQ-9 scores increased from 0.8 at 3 months into intern year to 1.4 at the end of internship
- Trajectories of depressive symptoms differed significantly between sexual minority and heterosexual physicians, even when controlling for specialty, sexual orientation, work hours, sleep hours, and sex in our linear mixed model
- This indicates that there is a difference in experiences during intern year between sexual minority and heterosexual physicians
- Implications for this include greater burnout of sexual minority physicians and a less diverse pool of physicians for patients to choose from.

Future Applications and Next Steps

- Determine the specific causes and risk factors of this disparity (eg., workplace environment or effects of sexual orientation diversity in the workforce)
- To give all physicians equal chances of success, and all patients the chance to select their physicians from a diverse pool, it is essential that the disparity is addressed

Acknowledgments

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Main Takeaway

Sexual minority physicians experience higher rates of depressive symptoms,

And further experience a greater increase in depressive symptoms compared with heterosexual interns

