Discovering regional differences in patient perceptions of diabetes within a practice-based research network

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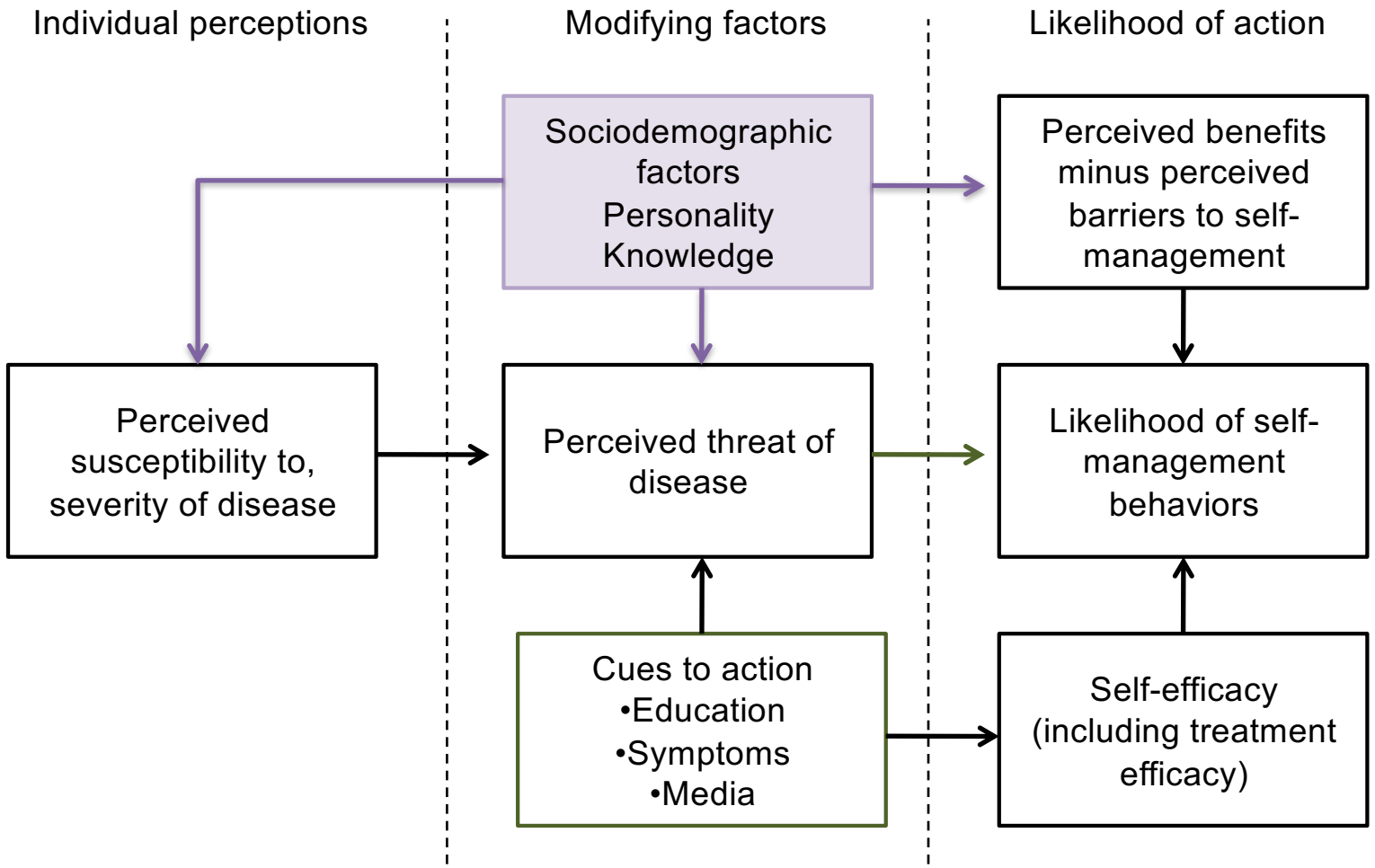
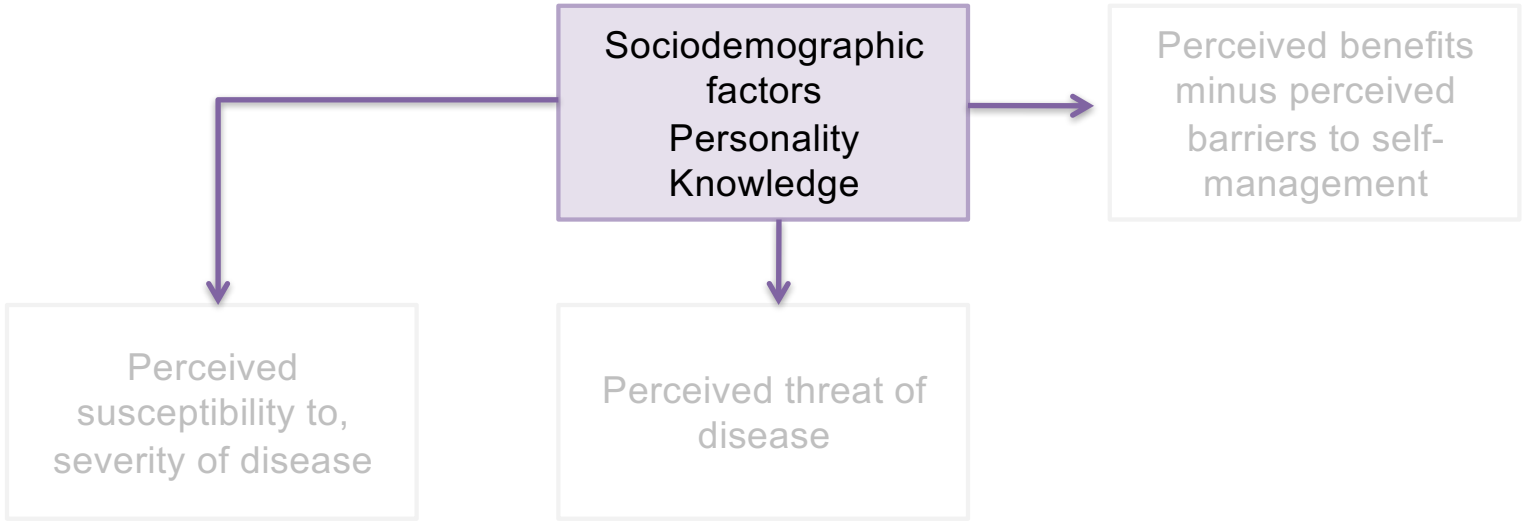
Cultural model of an illness

- Rising prevalence of Type 2 diabetes (T2DM): now estimated at 30.3 million Americans or 9.4% of the U.S. population
- Within a culture, how does increasing prevalence influence perceived *susceptibility* to the disease? More susceptible?
- Similarly, how does increasing prevalence influence perceived *severity*? If the disease is normative, is it perceived as less severe?

Hybrid Health Belief Model



Cultural factors



- Race/ethnicity
- Regional culture

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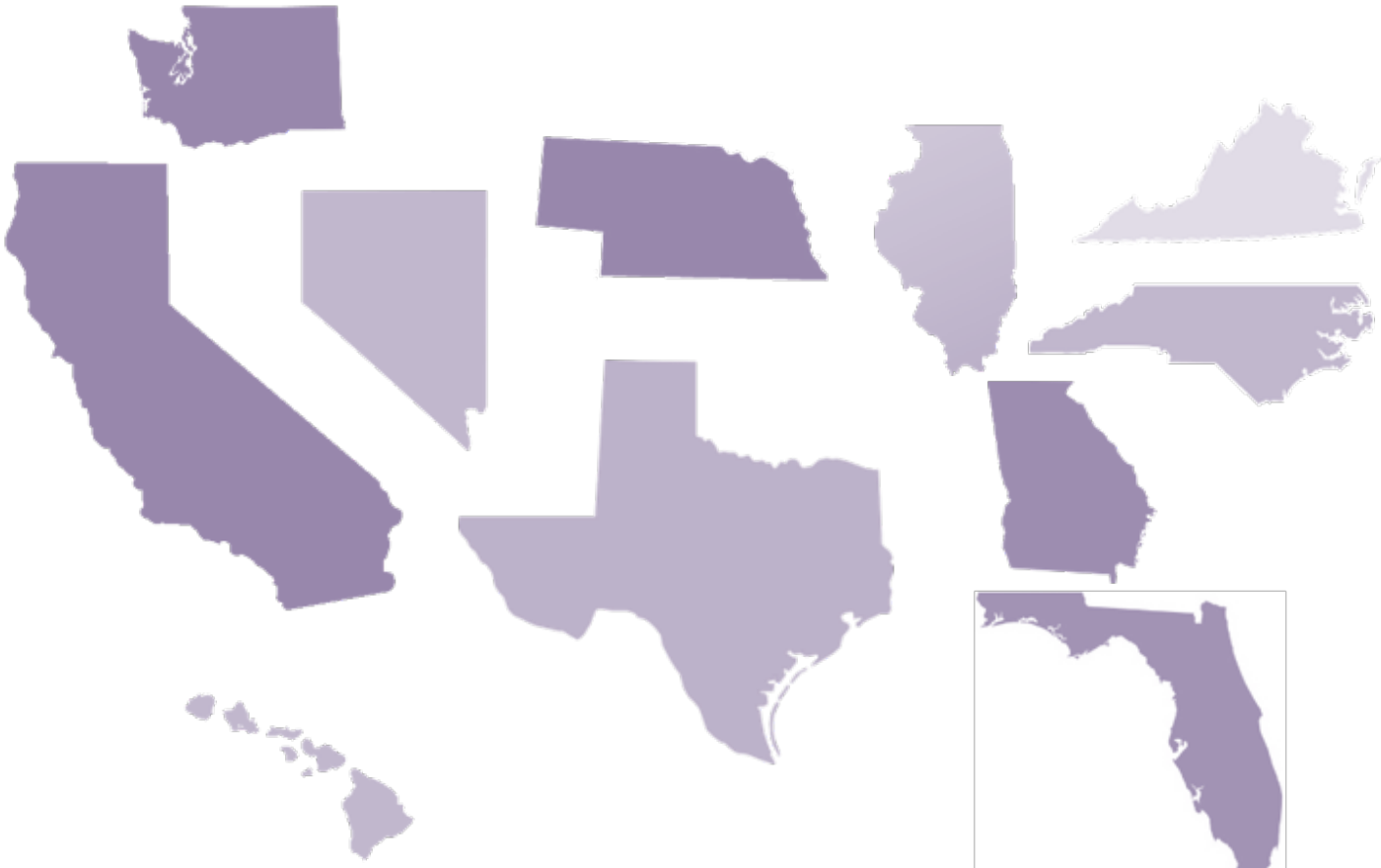

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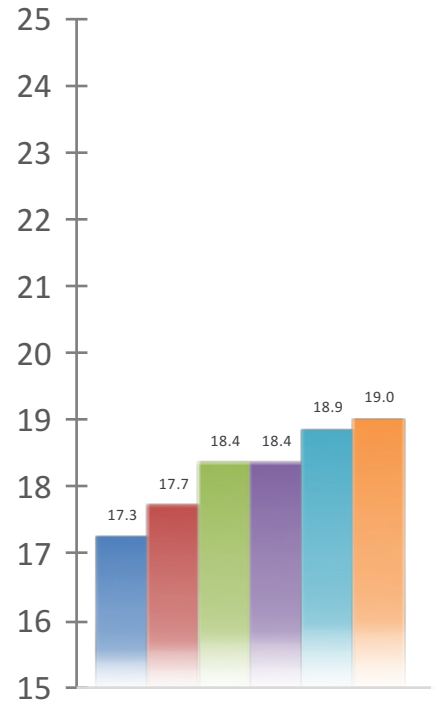
Method

- Purpose: to explore patients' personal models of the T2DM diagnosis and compare personal models of disease across regional and race/ethnicity differences
- Cross-sectional survey of patients at primary care clinics in two federal medical centers in Nevada (Mountain West) and Georgia (American South)
  - Inclusion criteria: age (25 to 64), diagnosis of T2DM (A1c ≥ 6.5)
- Analysis of covariance (controlling for age, health literacy, and patient activation): region and race/ethnicity were tested onto the five individual dimensions of illness representation (DIRQ)

Respondent characteristics

	N = 685	Georgia (n = 280)	Nevada (n = 405)	Sig.
Age	57.62 (SD 5.76)	56.87 (SD 5.98)	58.15 (SD 5.54)	.004
Gender: female	348 (50.8%)	143 (51.1%)	205 (50.6%)	n.s.
Race/ethnicity				.000
Asian American	161 (23.5%)	24 (8.6%)	137 (33.8%)	
Non-Hispanic Black American	228 (33.3%)	169 (60.4%)	59 (14.6%)	
Non-Hispanic White American	296 (43.2%)	87 (31.1%)	209 (51.6%)	
Patient activation (PAM)	67.23 (SD 16.15)	67.51 (SD 16.79)	67.04 (SD 15.71)	n.s.
Health literacy	4.50 (SD .72)	4.49 (SD .75)	4.51 (SD .70)	n.s.

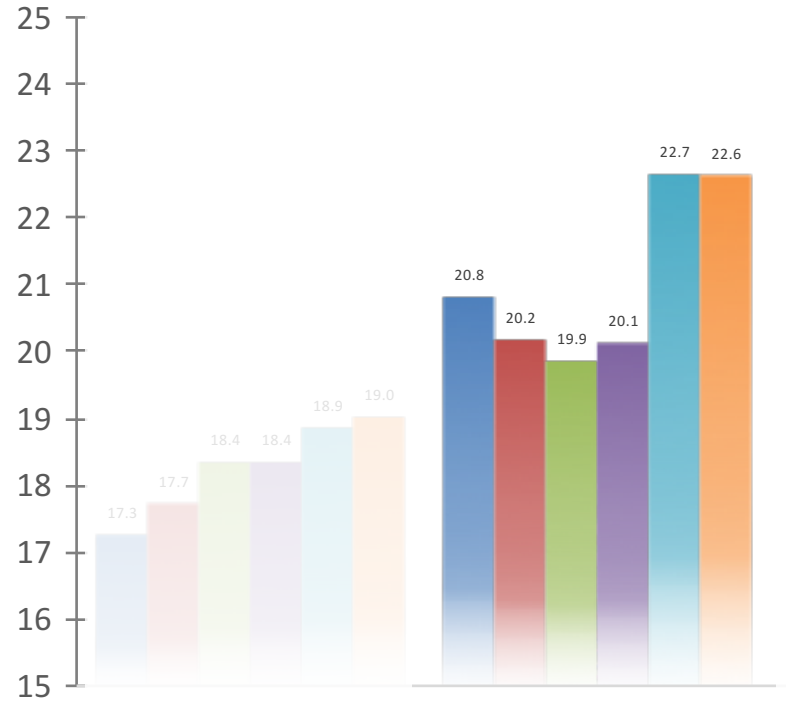


Race/ethnicity significantly associated with illness coherence, F (2, 676) = 4.63, $p < .01$

- Post-hoc Tukey revealed that White Americans reported significantly higher understanding than Asian Americans, $p < .005$

Illness coherence | Timeline | Personal responsibility | Seriousness | Impact

Asian Americans South
Asian Americans West
Black Americans South
Black Americans West
White Americans South
White Americans West



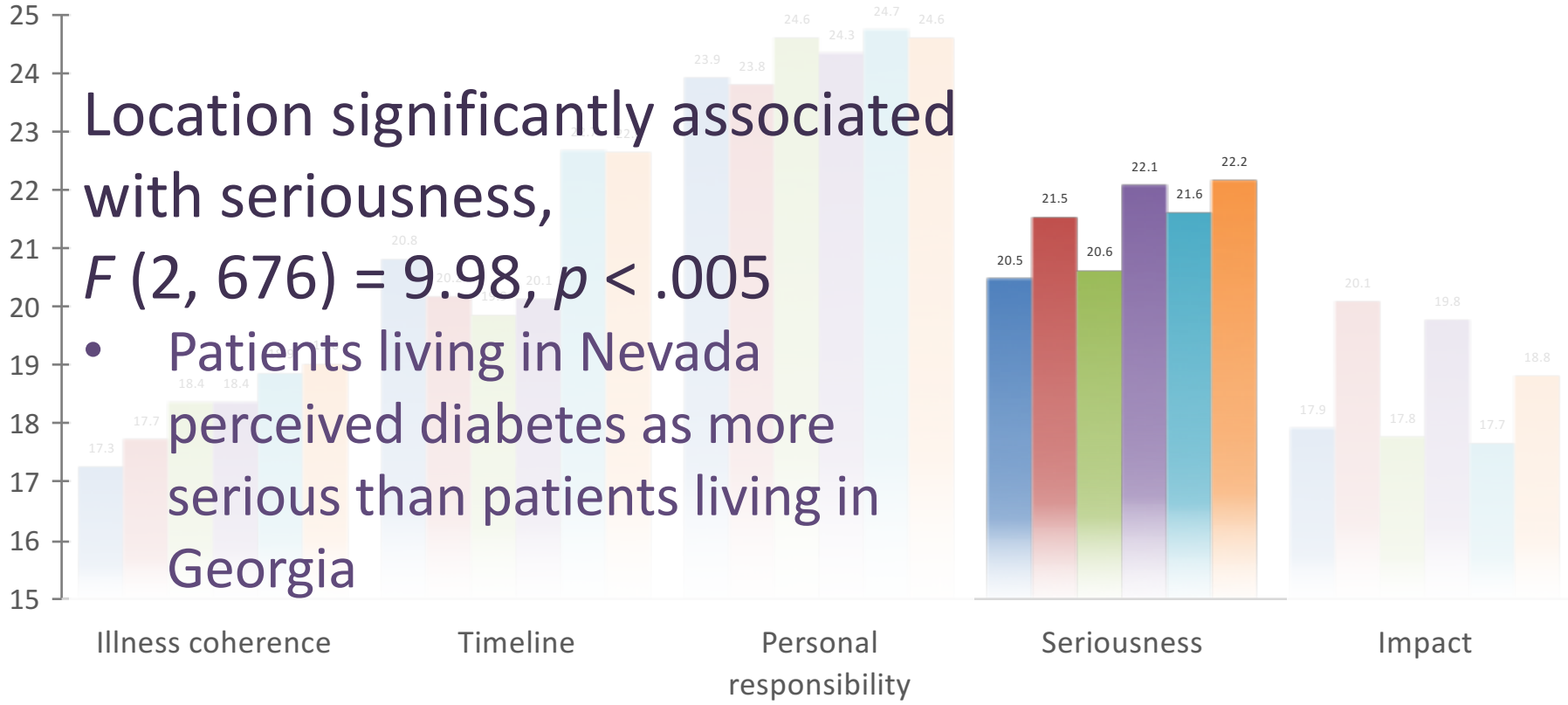
Race/ethnicity significantly associated with timeline, $F\ (2, 676) = 23.42, p < .001$

- Post-hoc Tukey revealed that White Americans perceived significantly greater longevity of the illness as compared to both Asian Americans, $p < .001$, and to Black Americans, $p < .001$.

Location significantly associated with seriousness,

F (2, 676) = 9.98, p < .005

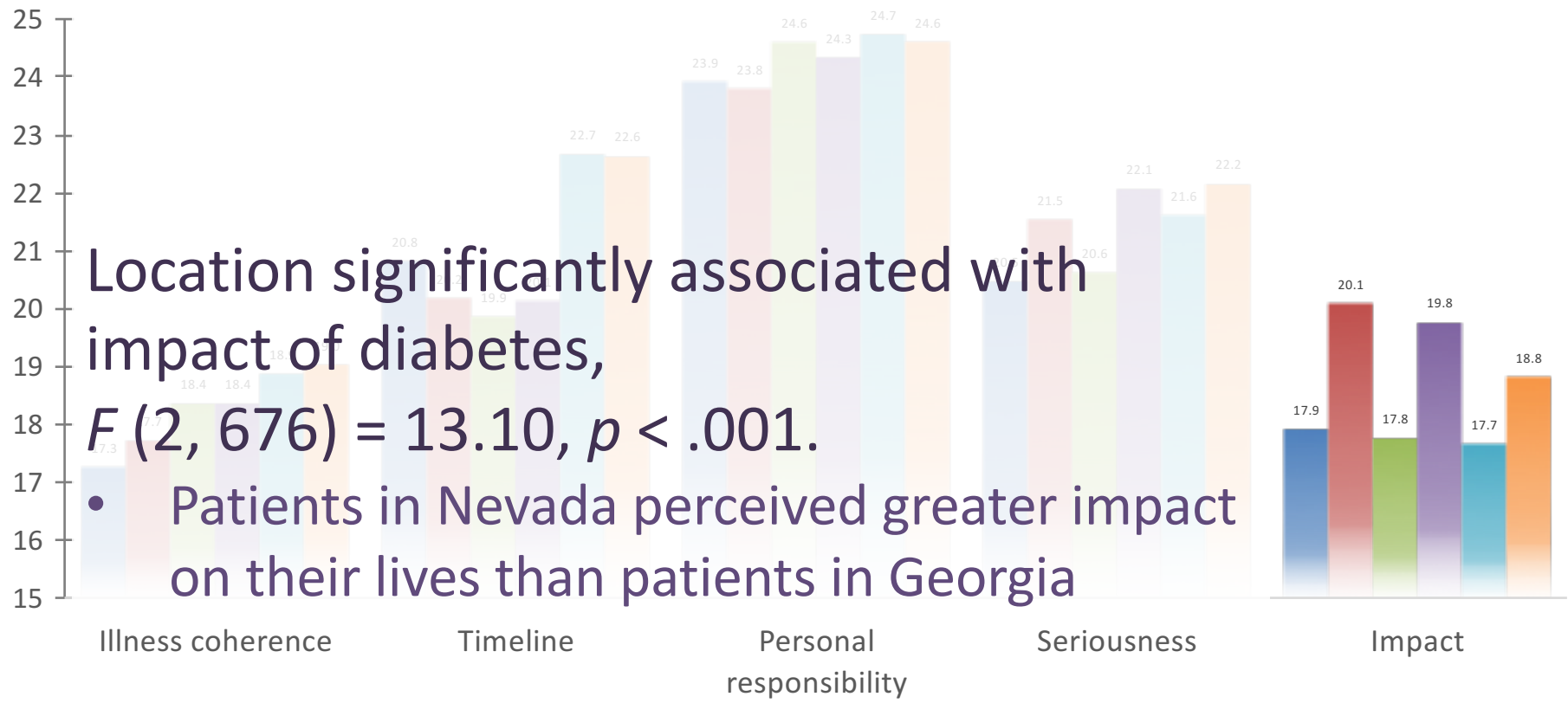
- Patients living in Nevada perceived diabetes as more serious than patients living in Georgia



Location significantly associated with impact of diabetes,

F (2, 676) = 13.10, p < .001.

- Patients in Nevada perceived greater impact on their lives than patients in Georgia



Discussion

- Non-Hispanic White Americans report greater understanding, higher perceived seriousness, and perceive a longer disease course than non-Hispanic Black Americans and Asian Americans
  - May be connected to culturally-bound perceptions of disease
- Patients in the American West perceive diabetes as more serious and having more impact on their lives than patients living in the American South
  - May reflect hypothesis that widespread prevalence, whether among ethnic group or geographic area, may lessen the perceived severity of diabetes
- Limitations: cross-sectional survey, may not indicate clinically significant differences

Implications

- Providers can elicit patient perceptions of diabetes within the context of the patient's ethnic and geographic culture group to improve discussions about disease and self-management.
  - Specifically address seriousness of a diabetes diagnosis and the chronic nature of the disease with patients who belong to communities with a higher prevalence of the disease
- When providers identify a gap between what the patient believes about diabetes and what current medical understanding is, they can work to close that gap.
  - Cultivate cultural humility, which can improve patient care across cultural contexts
- Demonstrate continued need for multi-site, multi-regional practice-based research network studies of patient understanding and behavior change

QUESTIONS?