



Examining differential impacts of age, sex, and sexual minority status on hypertension and serious psychological distress

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Conceptual Foundation



Minority stress theory (MST): The social position of marginalized persons predisposes these groups to adverse psychological and physiological conditions.

Outcomes of interest:

- **Hypertension**
 - One of the most common health conditions
 - May lead to the onset of other serious conditions (arrhythmia, heart attack, stroke).
 - Linked to lifestyle and health behaviours
- **Serious psychological distress (SPD)**
 - Mental health problems severe enough to cause social/occupational impairment
 - Reduces ability to cope with other illnesses
 - Linked to experience of social stressors

Research Questions

Are there differences amongst sexual minority (LGB) and majority (straight) individuals in risk for hypertension and serious psychological distress?

Are there notable differences within these groups related to sex and age?

Based on Minority Stress Theory, we expect that groups experiencing minoritized identities (LGB, older, women) will experience elevated rates of hypertension and SPD

Data & Descriptive Statistics

Dataset: CDC National Health Interview Study (2021)

Excluded: Age > 97 (no specific value provided for 97+);
Missing values for any variables

Final sample: 26,182

Summary Statistics

Variable	N	Mean	Std. Dev.	Min	Pctl. 25	Pctl. 75	Max
Sexual Orientation	26182						
... LGB	1109	4.2%					
... Straight	25073	95.8%					
Age	26182	52.992	18.264	18	37	68	85
Sex	26182						
... man	11904	45.5%					
... woman	14278	54.5%					
Race	26182						
... Non-White	5493	21%					
... White	20689	79%					
Education	26182	6.076	2.397	1	4	8	10
Hypertension	26182	0.369	0.483	0	0	1	1
Serious Psychological Distress	26182	1.434	0.635	1	1	1.667	5

MEASURES

Serious Psychological Distress:

- Range 0–5 (0 = never to 5 = often)
- Consists of self-reported frequency of sadness, nervousness, restlessness, hopelessness, arduousness, and worthlessness.

Hypertension:

- Indicator variable:
(0 = not diagnosed ever, 1 = diagnosed)
- Self-reported diagnosis of hypertension at any time in R's life.

Sex: Self report (2 = woman, 1 = man)

Sexual Orientation: Self report (1= LGB, 0 = straight)

Age: Senior = 50, Non-senior= 49 and under

Covariates

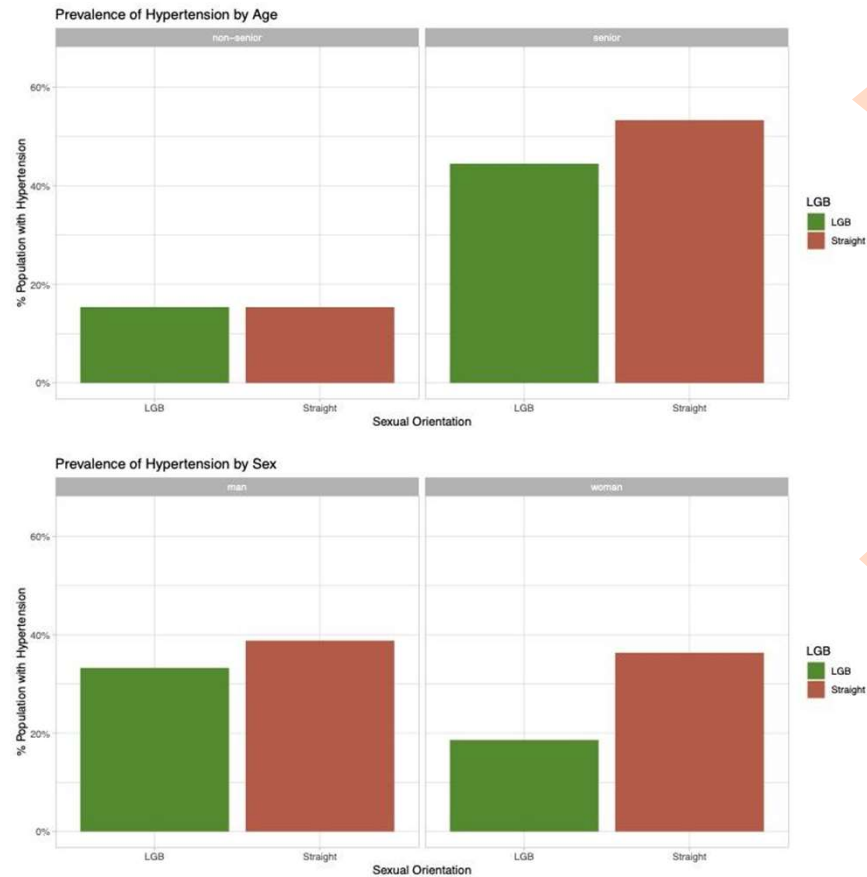
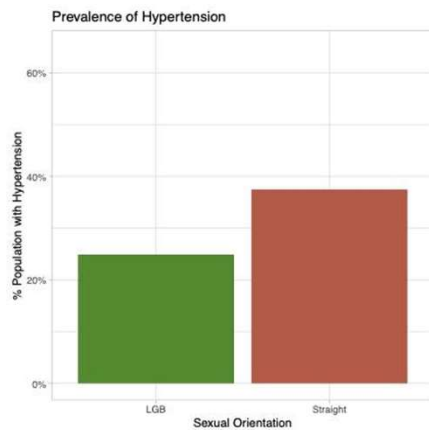
Race (1= non-white, 0= white)

Educational Attainment (years)

Age (years)

Results & Visualization: Hypertension

LGB persons less likely to have hypertension

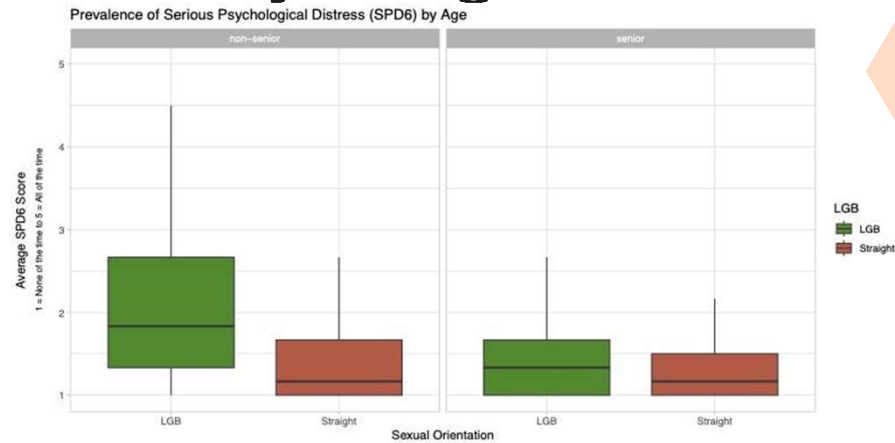
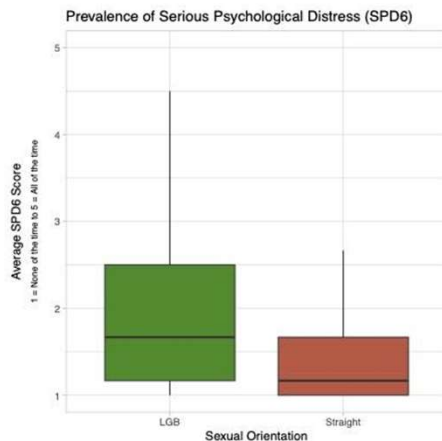


LGB Persons less likely to have hypertension regardless of age

LGB women least likely to have hypertension

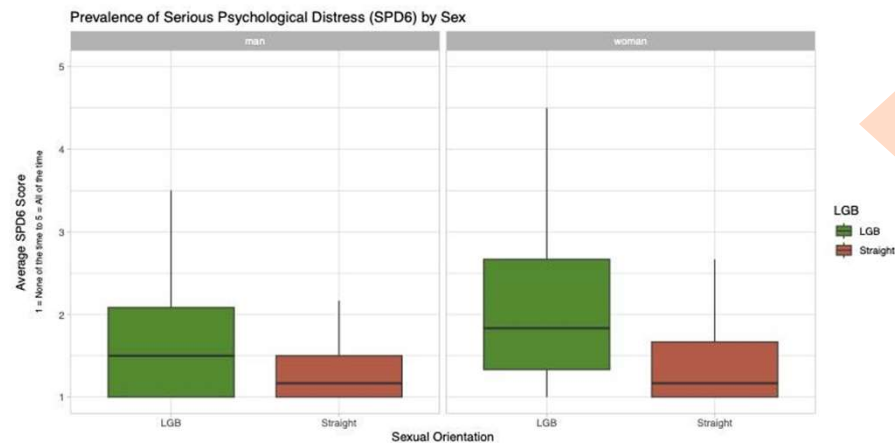
Results & Visualization: Serious Psychological Distress

LGB persons report more serious psychological distress



LGB persons report more serious psychological distress regardless of age

Seniors report lower levels regardless of sexual orientation



LGB women report most frequent serious psychological distress

Interpretation & Conclusion

- **LGB persons more likely to report SPD**
 - Aligns with minority stress theory
 - LGB women most likely to report SPD
 - Intersection of social marginalization
- **Seniors less likely to report SPD, regardless of sexual orientation**
 - Aligns with evidence citing reduced stress levels amongst older age groups
 - Caveat: SPD may present differently dependent on age groups
- **LGB persons less likely to report hypertension, Straight men most likely to report**
 - Lifestyle-based determinants (diet, occupation)
 - Mixed evidence regarding relationship of sexual minority status and hypertension

Continued work is needed to draw conclusions and provide evidence-informed interventions

 - Cannot assume that minority membership automatically links to enhanced risk for negative health outcomes/conditions
 - Future work is needed to examine hypertension risk amongst more representative LGB sample

Caution to take

- **Measures:** Self-reported measures
- **Geographic scope:** U.S. sample
 - Could not account for differences across states
 - Limited generalization to other regions
- **Selection bias:** No weighting accounting for prevalence of sexual minority groups
- **Simplified overview:** Looking at hypertension as an outcome without considering in the context of health behaviours/other conditions
- **Sample Representation:** LGB sample tends to be younger

Significance of Findings

