Social Support as a Moderator of the Association between Sexual Orientation and Mental Illness

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INTRODUCTION

- Existing literature identifies a relationship between sexual orientation and mental illness.
- Individuals who identify as LGB face an increased risk of diagnoses including generalized anxiety disorder (Bostwick et al., 2010), depression (Sakharkar & Friday, 2022), mood disorders, eating disorders, and substance use disorders (Gmelin et al., 2022).
- Less is known about whether social support can reduce the risk of mental illness among LGB individuals.

RESEARCH QUESTIONS

1: Can we find evidence to further support the argument that sexual orientation and mental illness are related?

2: Is the relationship between sexual orientation and mental illness moderated by an individual's perceived social support?

METHOD

Sample
- Wave 5 of the U.S. National Longitudinal Survey of Adolescent Health (or ADDHEALTH) measures the physical, psychological, and social health of 4,196 participants in their late-30s and early-40s.
- Only complete cases were retained for this study; the final sample size is 2,040.

Measures
- **Sexual Orientation:** coded dichotomously— either "heterosexual" or "LGB".
- **Mental Illness Diagnosis:** binary categorical variable created by collapsing responses to whether participants have been diagnosed with depression, PTSD, anxiety/mood disorders, and/or eating disorders.
- **Social Support:** categories including "low", "moderate", and "high" created by summing participants' binary responses to 12 questions regarding perceived social support.

RESULTS

Univariate
- 11.27% of participants identify as lesbian, gay, or bisexual.
- 32.35% of participants have previously been diagnosed with any of the 4 following mental disorders: depression, PTSD, anxiety/mood disorders, and/or eating disorders.

Bivariate
- A chi-squared test of independence showed that **sexual orientation** was significantly and positively associated with **mental illness diagnosis** ($X2 = 78.174$, $p < 2.2e-16$).
- A post-hoc chi-square test indicates that a statistically larger proportion of LGB-identifying participants were diagnosed with at least 1 of 4 mental illnesses than their heterosexual counterparts.

Figure 1: Sexual Orientation and Probability of Mental Illness Diagnosis
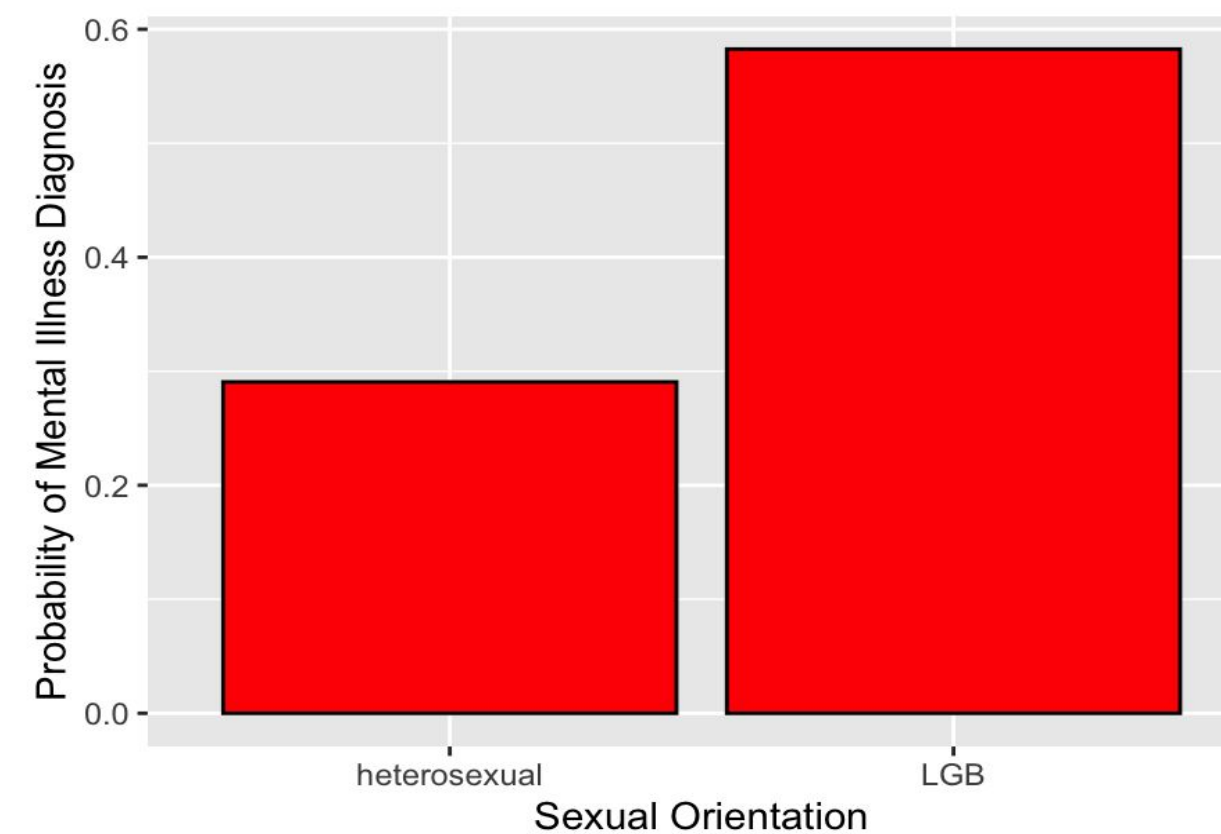
Regression Analyses
- Like the chi-squared test of independence, a logistic regression revealed that **LGB-identifying participants** (O.R. 3.41, CI 2.58 - 4.52) were significantly more likely to be diagnosed with a mental illness than heterosexual participants, such that the odds of an LGB participant having a mental illness diagnosis were 3.4 times those of a heterosexual participant.
- A separate logistic regression showed that individuals with **low** (O.R. , CI) and **moderate** (O.R., CI) **levels of social support** were significantly more likely to be diagnosed with a mental illness than participants with high levels of social support.
- When controlling for social support, **sexual orientation** (O.R. 3.29, CI 2.49 - 4.38) and **mental illness diagnosis** were still significantly associated. LGB participants were 3.29 times more likely to have a mental illness diagnosis than heterosexual participants.
- **Social support levels** (Beta = 0.79412, p = 0.501; Beta = -0.23854, p = 0.522) do not significantly moderate the relationship between sexual orientation and mental illness diagnosis.

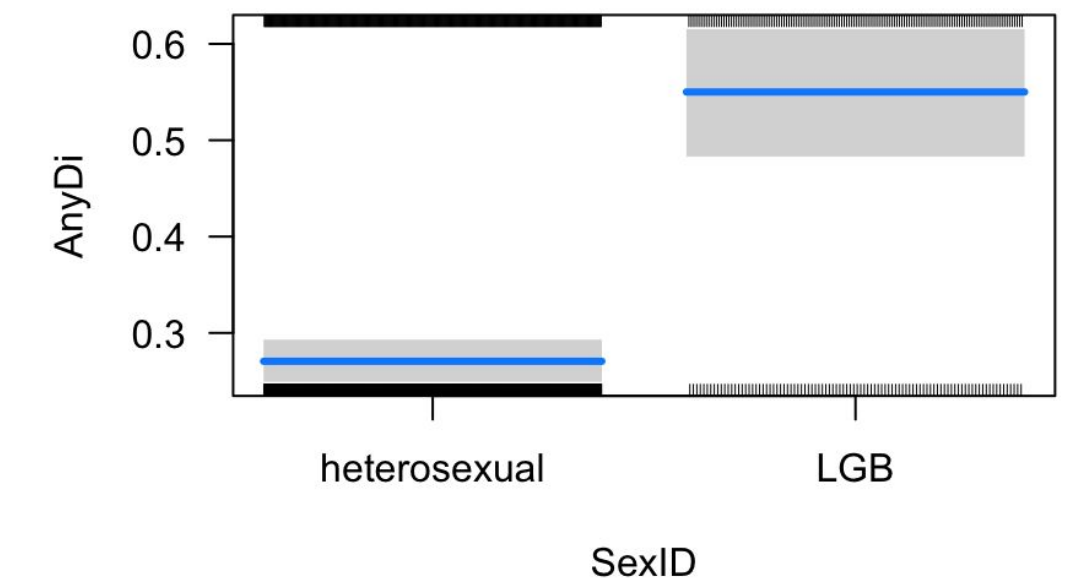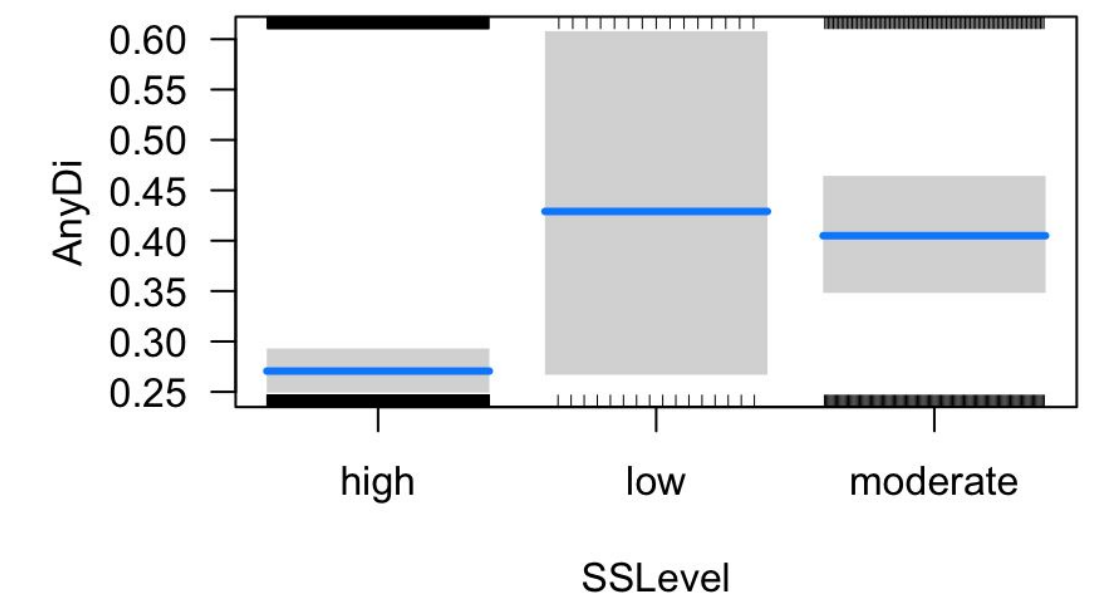Figure 2: Odds of Mental Illness Diagnosis by Sexual Orientation

Figure 3: Odds of Mental Illness Diagnosis by Social Support Level

DISCUSSION

- This study further demonstrates the association between sexual orientation and mental illness diagnosis.
- Social support level does not appear to be a significant moderator of the relationship between sexual orientation and mental illness diagnosis.
- Health professionals and mental health counselors would do well to consider the increased risk of mental illness among their LGB+ patients, and perform mental illness screenings more frequently and rigorously with these individuals.
- Further research is needed to determine possible moderators of the relationship between sexual orientation and mental illness; identifying these moderators might allow for the development of specific interventions.

REFERENCES

- Bostwick, W. B., Boyd, C. J., Hughes, T. L., & McCabe, S. E. (2010). Dimensions of Sexual Orientation and the Prevalence of Mood and Anxiety Disorders in the United States. *American Journal of Public Health*, 100(3), 468-475. Web of Science. https://doi.org/10.2105/AJPH.2008.152942open_in_new
- Gmelin, J.-O. H., De Vries, Y. A., Baams, L., Aguilar-Gaxiola, S., Alonso, J., Borges, G.,Bunting, B., Cardoso, G., Florescu, S., Gureje, O., Karam, E. G., Kawakami, N., Lee, S., Mneimneh, Z., Navarro-Mateu, F., Posada-Villa, J., Rapsey, C., Slade, T., Stagnaro, J. C., ... de Jonge, P. (2022). Increased risks for mental disorders among LGB individuals: cross-national evidence from the World Mental Health Surveys. *Social Psychiatry and Psychiatric Epidemiology*, 57(1), 2319-2332. Web of Science. https://doi.org/10.1007/s00127-022-02320-z
- Sakharkar, P., & Friday, K. (2022). Examining Health Disparities and Severity of Depression among Sexual Minorites in a National Population Sample. *Diseases*, 10(86), 1-11. Web of Science. https://doi.org/10.3390/diseases10040086