

The Role of Psychosocial Factors on Elevated Levels of Blood Pressure Among Residents of a Midwestern Micropolitan Community



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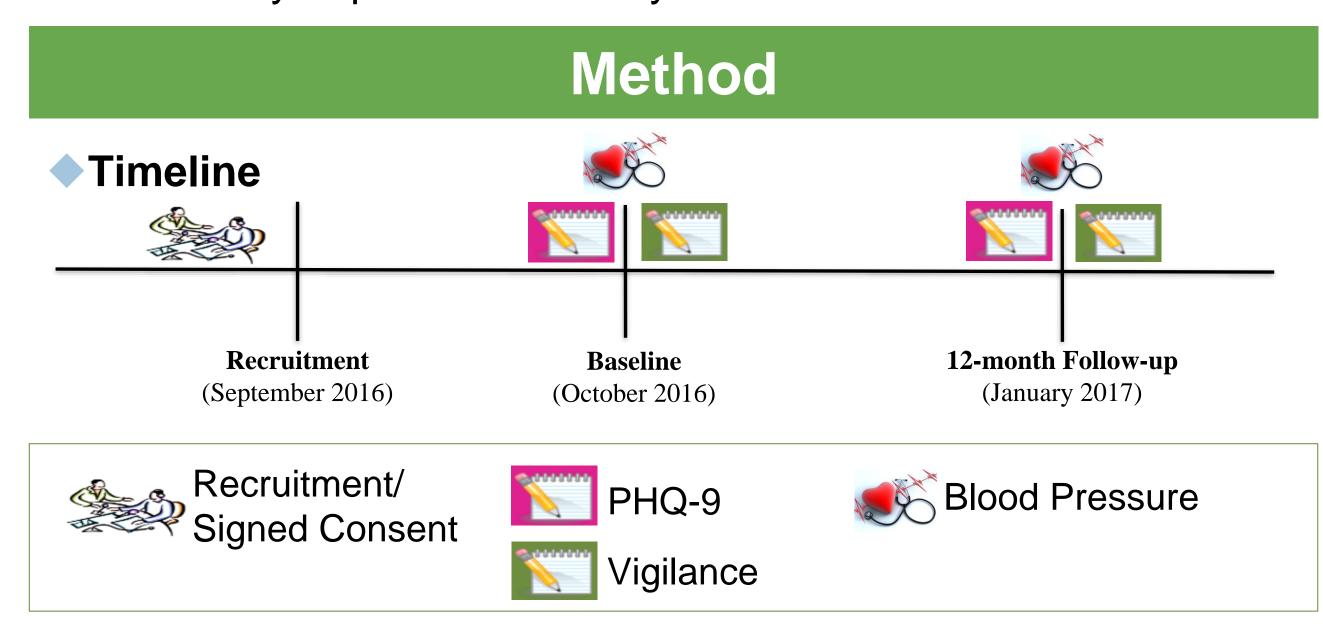
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Background & Significance

- In the United States, between the years 2000 and 2013, hypertension accounted for 23% of all deaths in the country.
- Causes of hypertension can be traced back to physiological mechanisms, but psychological factors could also contribute to the elevated rates of hypertension observed in the US.
- Depression and a state of vigilance might contribute to the increased prevalence of hypertension.

Study Aims

To explore the relationship between vigilance, and systolic and diastolic blood pressure and whether this relationship would be moderated by depression severity.



◆ Participants: A total of 142 individuals living in a Midwestern micropolitan city were recruited as part of a community evidence-based physical activity intervention.

◆ Sample Characteristics: Age range:

16-68 y.o. (47.26 +/-14.12)

Racial/Ethnicity;

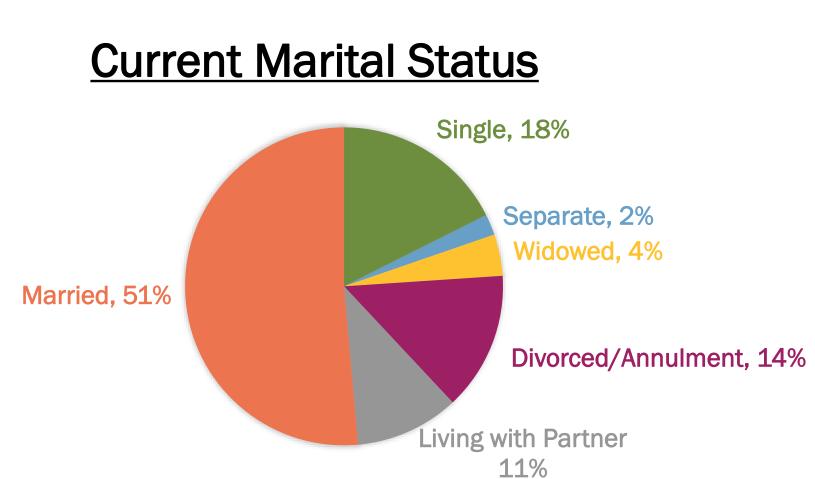
Non-Hispanic Whites n = 105Latinos n = 35

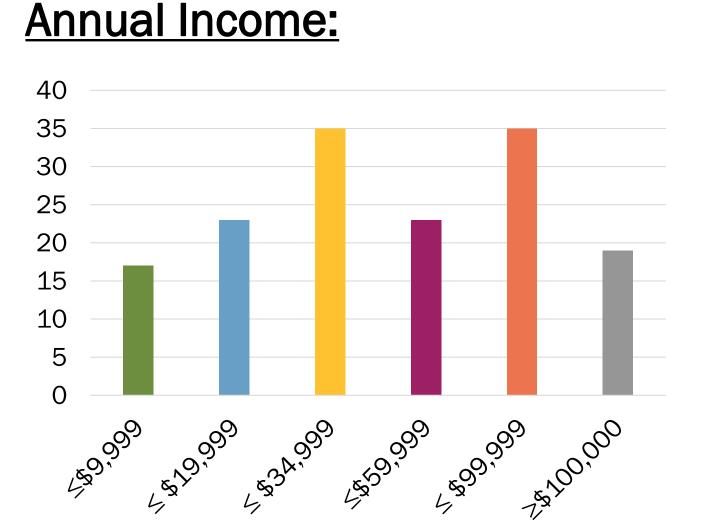
Current Living Situation:

Own n=114 (68%)Rent n=43 (25%)Neither n=12 (7%)

Level of Education Completed

2nd-12th n=55 > High School n=82





► Measures:

Patient Health Questionnaire-9 (PHQ-9):

Assessed participants' depressive symptoms over the previous 2-week interval (Kroenke, Spitzer, & Williams, 2001).

- -Scale ranged from (1) Not all all to (4) Nearly every day
- Higher scores indicated more severe depression

Vigilance:

Assessed participants' anticipatory strategies/psychological predispositions used to negotiate everyday perceptions of interethnic group racism (Clark, Benkert, & Flack, 2006).

- -Scale ranged from (1) Almost every day to (6) Never
- Higher scores indicated increased vigilance

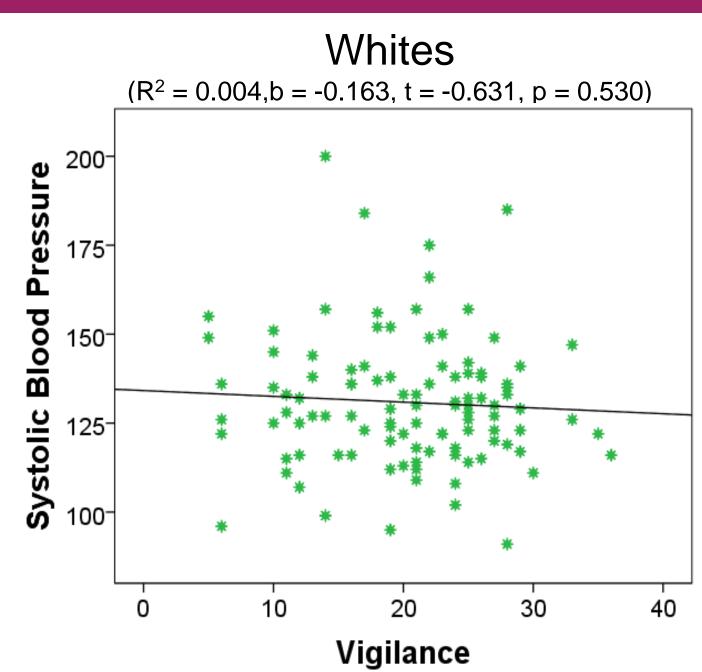
Blood Pressure:

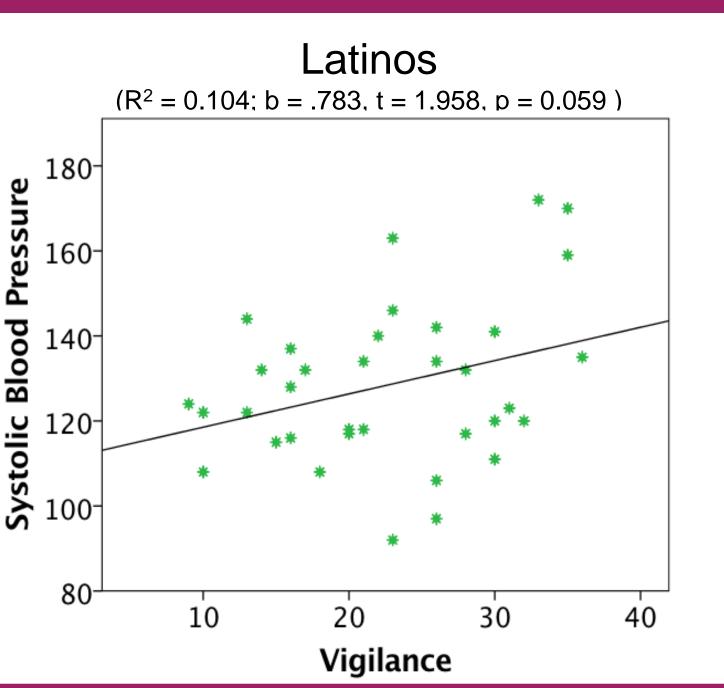
Resting blood pressure were obtained using standard protocols with an Omron automatic blood pressure monitor with ComFit cuff.

Results

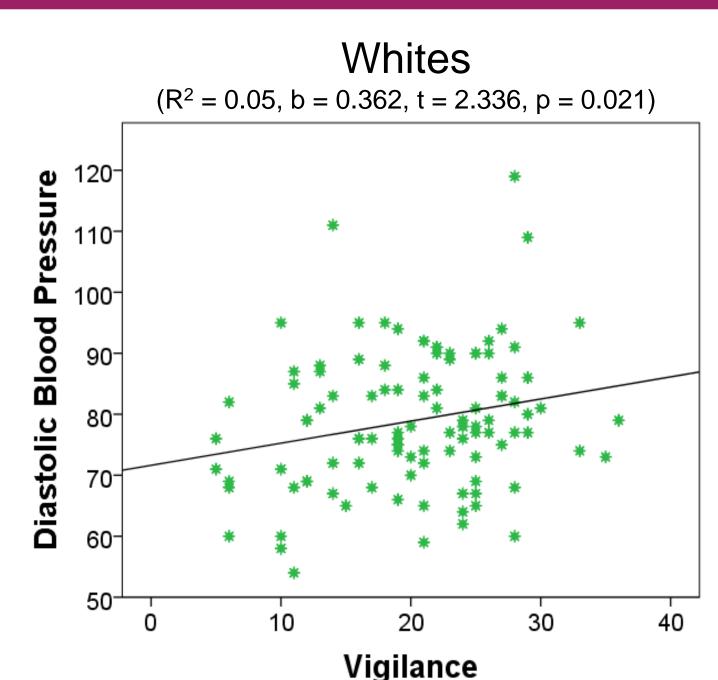
Vigilance was associated with systolic blood pressure among Latinos, but not among

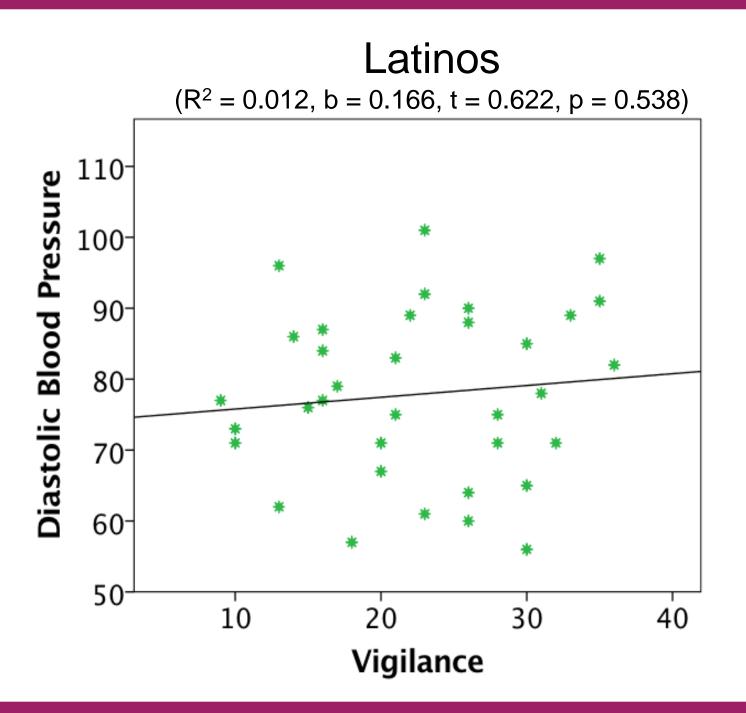
Whites



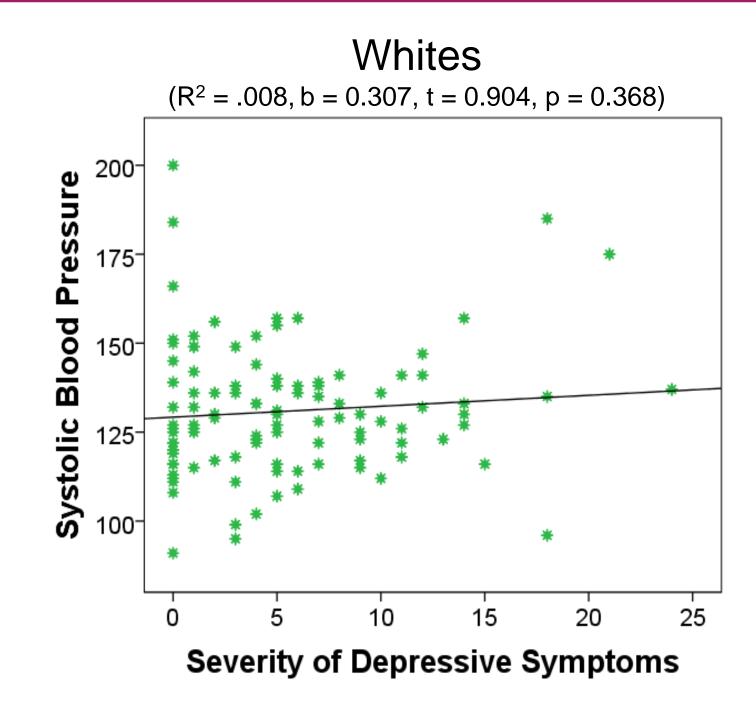


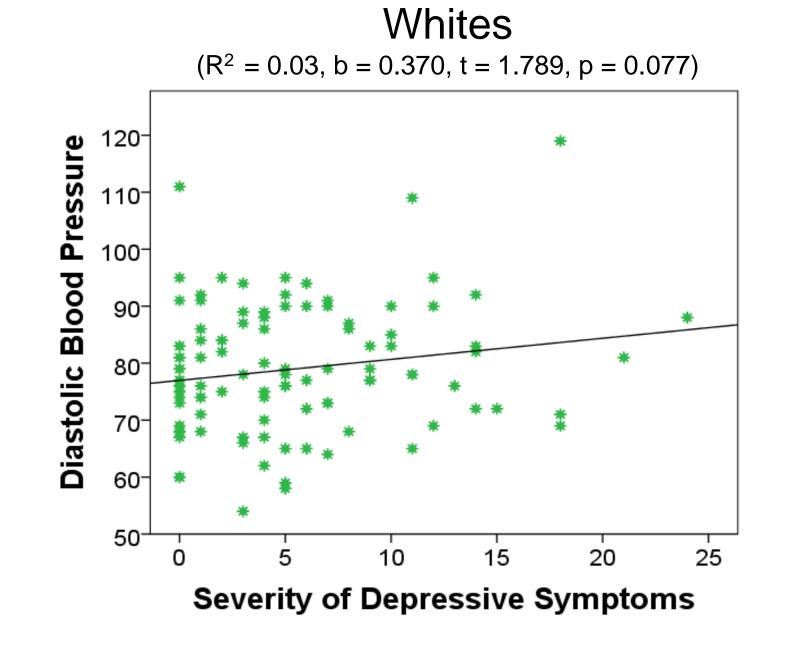
Vigilance was associated with high diastolic blood pressure among Whites, but not among Latinos

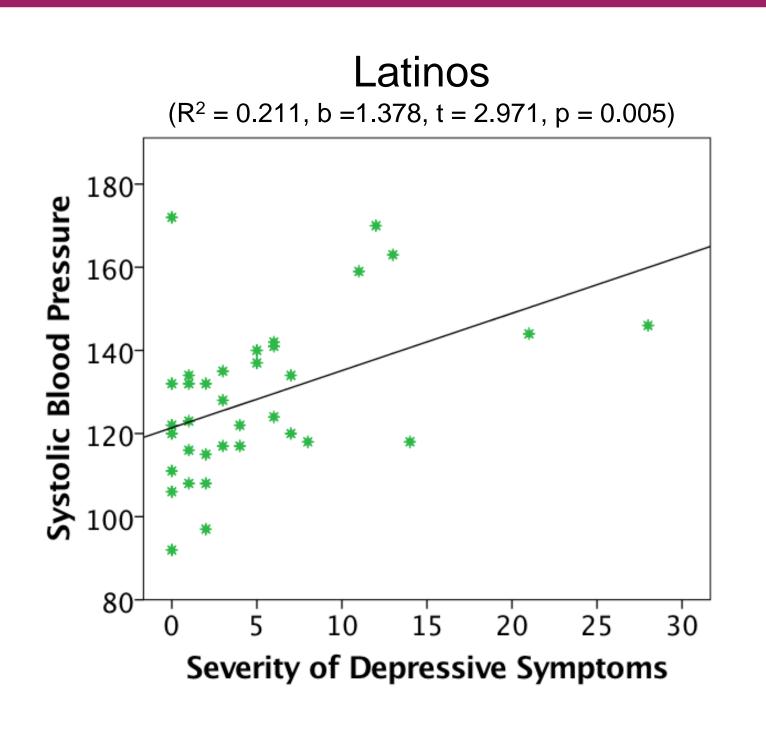


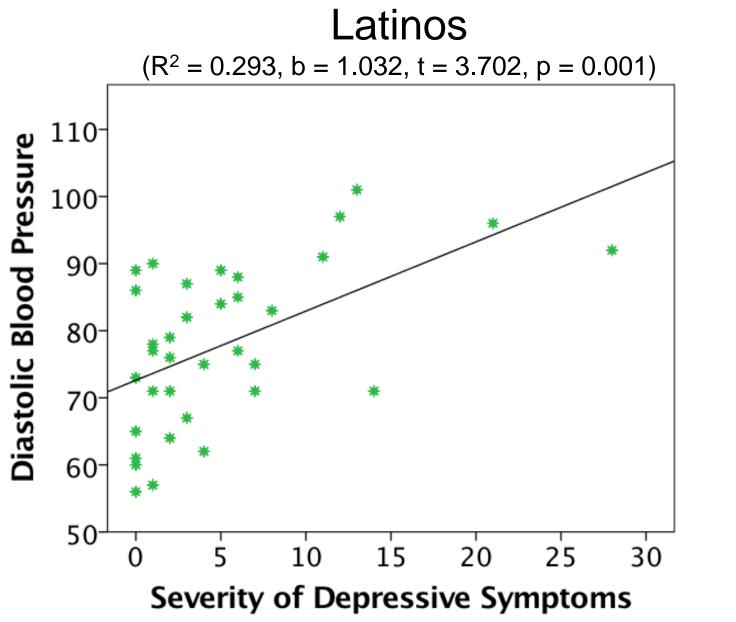


Depressive Symptoms were associated with both elevated systolic and diastolic blood pressure levels among Latinos but not among Whites

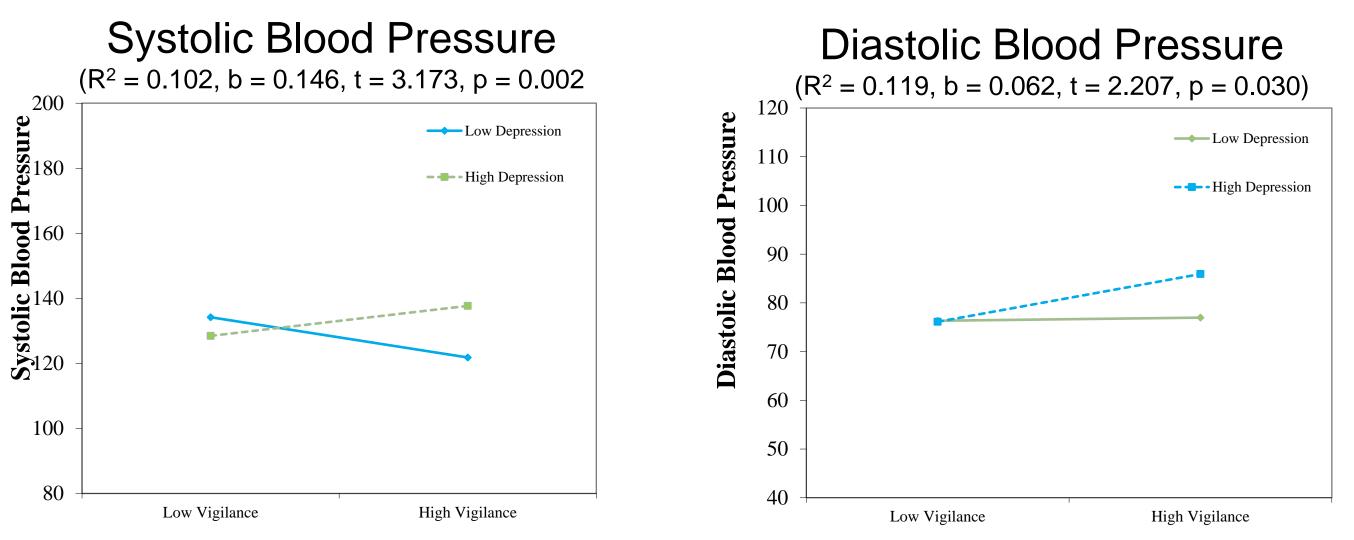


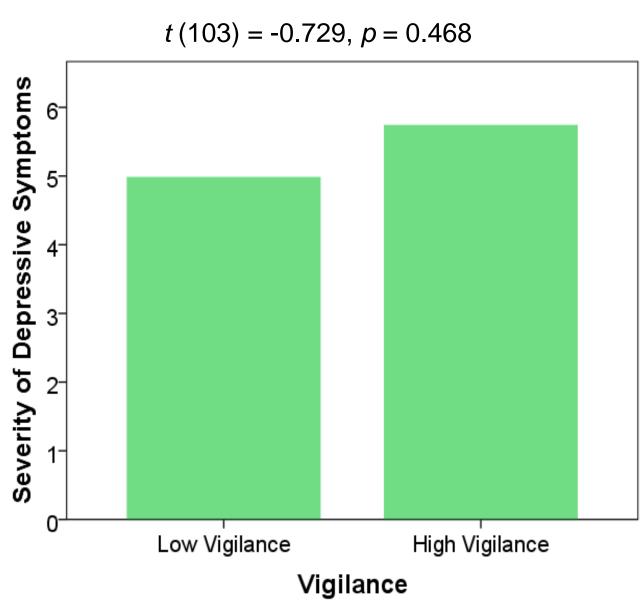




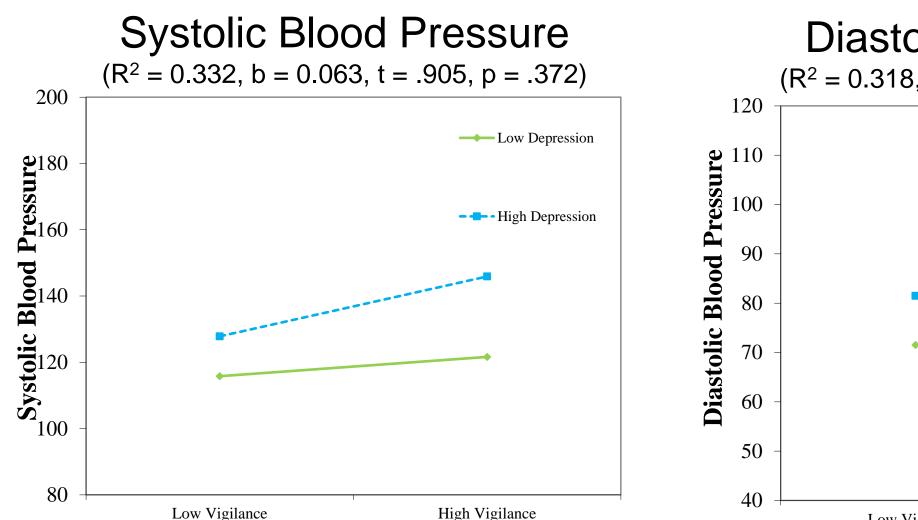


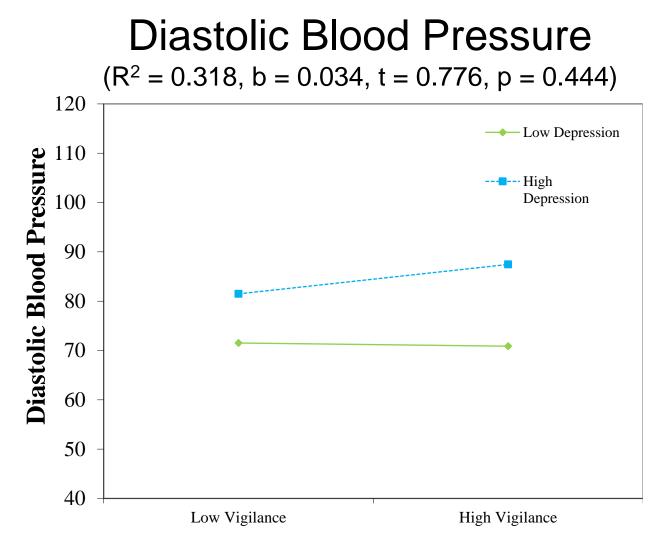
Depressive symptoms moderated the relationship between vigilance and both systolic and diastolic blood pressure among Whites





Depressive symptoms did not moderate the relationship between vigilance and diastolic blood pressure among Latinos





Discussion

- Vigilance was associated with increased diastolic but not systolic blood pressure among Whites.
- Vigilance was associated with increased systolic but not with diastolic blood pressure.
- These findings suggest that the interaction between vigilance and depression is a risk factor for elevated blood pressure levels among residents of a new-destination community.
- Future research should explore whether the rapid demographic shift experienced in Midwestern micropolitan cities, makes individuals hyper-vigilant to inter-ethnic group racism, placing them at an increased risk for hypertension. . .

Acknowledgments

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