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Neighborhood Cohesion and Symptoms of Anxiety Across Racial/Ethnic Groups in the United States

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ABSTRACT

This study evaluates whether the association between neighborhood cohesion and frequency of anxiety symptoms varies by racial/ethnic group in the United States (US). Our study includes 89,617 respondents ages 18 and older from the National Health Interview Survey (2013–2018). We fit multivariate generalized linear regression models with interactions between neighborhood cohesion and race/ethnicity to test our hypotheses. We find that greater neighborhood social cohesion is associated with a lower frequency of anxiety symptoms for all racial/ethnic groups. However, this relationship was strongest for NL-Whites and Asians compared to NL-Black and Latine adults. No significant differences in this relationship were found between NL-Black, Latine, and Asian adults. Our study suggests that examining markers of mental health, such as anxiety symptoms, among the US population should consider variations in associations by race/ethnicity to expand our understanding of contextual factors that are associated with these outcomes. Population-based assessments of mental health markers should consider how sociocultural mechanisms operate differently by race/ethnicity.

1 | Introduction

According to data compiled by the National Institute of Mental Health, approximately one-third of adults in the United States (US) will experience an anxiety-related disorder in their lifetime (National Institute of Mental Health [n.d.](#)). This rate increases to 44% when we consider individuals who are experiencing sub-threshold symptoms of anxiety (Kavalaars et al. [2023](#)). Research indicates that anxiety symptoms can also go unrecognized by those who experience them (Kavalaars et al. [2023](#)), thus the prevalence of symptoms of anxiety is likely even higher than reported. Further, subthreshold anxiety increases the risk of developing clinical levels of anxiety and anxiety disorders (Zhong et al. [2024](#)), underscoring the importance of expanding our understanding of symptoms and their associated factors.

Experiences of anxiety are undoubtedly a public health concern as its impact is far-reaching regarding its economic, physical health, and quality of life burden for those who experience it, and beyond (Behar et al. [2010](#)). Therefore, it is necessary to study risk and protective factors associated with developing anxiety and anxiety-related symptoms at a population level, an area that thus far remains understudied.

Research has also shown that anxiety-related mental health problems do not affect everyone at equal rates. Among adults in the US, non-Latine (NL) White Americans are consistently found to have the highest lifetime prevalence rates of anxiety disorders when compared to Black, Latine¹, and Asian Americans (Asnaani et al. [2010](#); Chen et al. [2019](#)). This differential prevalence rate, lower prevalence of anxiety disorders in racially

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and ethnically minoritized groups, has been repeatedly documented despite higher exposure to risk factors that are strongly associated with adverse health outcomes such as higher poverty rates (Gradin 2012), lower educational attainment and opportunity (Everett et al. 2011; Saporito and Sohoni 2007), higher rates of housing insecurity (Chinchilla et al. 2022), and neighborhood inequality (Farrell and Firebaugh 2016; Miranda et al. 2008; Santos-Lozada 2016; Vilsaint et al. 2019). On the other hand, recent research also indicates that Latine and Black/African American groups have higher prevalence rates of anxiety symptoms than NL-Whites, this despite the differential rates of diagnosis (Kavelaars et al. 2023; Vanderminden and Esala 2019). Disparities in diagnosis of mental health conditions are well documented, and can stem from unequal access to care and health-seeking behaviors (Cook et al. 2017). Thus, studying anxiety at the level of symptoms may provide further insights into disparities, because this outcome is not dependent on a diagnosis.

Scholars have come to question the accuracy of the incidence and prevalence rates, suggesting that structural inequalities and biases in the mental healthcare system may be at fault for the “symptom-to-diagnosis” gap, rather than rates of anxiety being lower in racially/ethnically minoritized groups (Vanderminden and Esala 2019). Furthermore, structural and systemic racism, or the deeply rooted racist practices that are embedded into the fabric of the US society through laws, policies, institutions, and systems, continues to negatively impact people of color and their well-being (Braveman et al. 2022). Thus, assessing malleable community and neighborhood factors that could serve as points of intervention is crucial in increasing buffers to developing anxiety symptoms and anxiety-related disorders across racial/ethnic groups in the US. This study aims to better understand social factors that may contribute to the potential differential prevalence of anxiety symptoms as well as the extent to which these factors relate similarly or distinctly to markers of anxiety among racially/ethnically minoritized groups by studying neighborhood cohesion.

2 | Background

2.1 | Anxiety Symptoms

Anxiety is an emotional state associated with the “fight or flight” fear response that is a natural often adaptive response to a threat. However, the physiological, cognitive, and behavioral aspects of anxiety can become maladaptive or “disordered” when this reactivity is prolonged and disproportionate to the threat (Vine et al. 2012). Excessive, chronic, and extreme worry is a defining cognitive symptom of Generalized Anxiety Disorder (GAD), the most prevalent anxiety disorder (American Psychiatric Association 2013). Worry is a very common perseverative cognitive experience in response to external or internal triggers (Renna et al. 2020) and commonly co-occurs alongside other markers of anxiety and depression with strong associations with poor overall health and increased risk of physical health problems (Behar et al. 2010; Renna et al. 2020).

As stated previously, prevalence rates of anxiety symptoms and related disorders differ across racial/ethnic groups. One of the few studies that focus on symptom-level anxiety found that the

prevalence of anxiety symptoms was higher for Latine and Black/African American adults compared to NL-White adults in the US, and this was also strongly associated with depression symptoms (Kavelaars et al. 2023). Additionally, undetected or unrecognized anxiety, defined by experiencing symptoms but not explicitly acknowledging the presence of difficulties, was highest among Latine adults followed by Black/AA, and lowest among NL-Whites. Further, it may be possible that the conceptualization of anxiety across groups may differ, and this can impact how they report and thus explain the differences in prevalence rates. This research runs counter to the established patterns of prevalence rates of anxiety disorders, which identifies a higher presence of anxiety disorders in NL-White adults compared to all other groups (Asnaani et al. 2010; Chen et al. 2019). Altogether, this literature demonstrates that experiencing symptoms of anxiety and receiving a diagnosis of an anxiety disorder are distinct outcomes, and that rates differ among racial/ethnic groups. Population-level research on anxiety symptoms is limited, and so is our understanding of the role that social contexts play in shaping these disparities. This is an area that warrants further attention.

2.2 | Mental Health and Social Contexts

The social determinants of mental health framework provides strong support for the role and linkages that community and social contexts, neighborhoods, and physical environments have on mental health (Alegria et al. 2018). The World Health Organization's (World Health Organization 2014) report on social determinants of mental health describes a multilevel life-course approach to identifying systemic, social, environmental, economic, and political factors that shape mental health and predispose people disproportionately to the development of mental disorders. Their findings suggest that structural factors, such as poverty, lower educational attainment, social isolation, neighborhood trust and safety, access to resources and opportunities, and lack of social support among other factors can have an accumulative impact across the lifespan to increase the risk and prevalence of mental disorders (e.g., anxiety and depression; World Health Organization 2014). Additionally, certain demographic variables also interact to exacerbate these socioeconomic and environmental factors such as gender, age, and ethnicity to further compound inequality. In the US, the role that systemic racism has played in the shaping of society itself and its structures such as neighborhoods, the judicial system, institutions, and healthcare systems cannot be ignored (Braveman et al. 2022). For instance, discriminatory housing practices fueled by racism, such as redlining, blockbusting, and gentrification, have molded and continue to impact neighborhood structures and social and health dynamics in the US. These inequitable practices disproportionately affect racially/ethnically minoritized groups, limit access to resources, affect social connectedness, and relate to worse mental health outcomes (Sadler et al. 2022).

The impact that access to resources and support from those in one's immediate surroundings has on individual and collective well-being is well-documented (Vera et al. 2020). Social support in particular can refer to the provision of psychological, material, and emotional resources by one's social network usually

to facilitate coping with stress (Cohen 2004). Consequently, social support serves as a reservoir of resources that can be called upon in times of need while a lack of social support can also be indicative of ill-being or psychological dysfunction (Aneshensel 1982; Feeney and Collins 2015). The social support available in one's neighborhood may play a crucial role in mental health as research has found that higher neighborhood social ties and social support were associated with less internalized symptoms even in neighborhoods with high levels of disorder (i.e., crime, drug use, vandalism, noise, etc.; Kim and Ross 2009). This shows that neighborhood-level support and social ties can be protective in offsetting the negative effect that disadvantaged contexts can have on markers of mental health.

2.3 | Neighborhood Contexts: Social Disorganization and Pluralistic Neighborhood Theories

Neighborhood contexts can have a strong bearing on fostering well-being as well as disorder and ill-being (Echeverría et al. 2008; Meyers and Miller 2004). Shaw and McKay's (1942) Social Disorganization theory has been a foundational ecological framework for understanding the impact of structural-level factors in one's community. The Social Disorganization theory argues that the structural factors of socioeconomic status, ethnic heterogeneity, and residential mobility/instability are directly associated with a community's social organization, and this in turn impacts rates of crime and delinquency (Sampson and Groves 1989; Shaw and McKay 1942). Studies with Latine youth and Black residents have found that residing in neighborhoods identified as disadvantaged or with greater disorder is associated with more symptoms of anxiety (Rubens et al. 2018; Casciano and Massey 2012). Exposure to structural risk factors, based on place of residence, varies across racial/ethnic (Alegría et al. 2014), however, whether this exposure predicts common symptoms associated with mental health differently is a matter that requires further evaluation.

In conjunction, the Pluralistic Neighborhood theory offers a broader perspective beyond the social organization and disorganization of neighborhoods (Aber and Nieto 2000). This theoretical framework contextualizes the study of well-being within the historical, political, and social realities of neighborhood residents, emphasizing individuals' perceptions of their neighborhoods rather than just the objective structural realities. The Pluralistic perspective also showcases the dynamic relationship between neighborhood factors and social processes. This transactional process between neighborhood structures and the individuals that inhabit them and shape them is essential in the study of neighborhoods (Aber and Nieto 2000). Relatedly, another important dimension is the presence and interconnectedness of social networks within a community. Locally-based ties between residents can serve to increase organization, a community's capacity to maintain social control, and to promote wellness (Sampson and Groves 1989; Aber and Nieto 2000). Research has demonstrated that social support and ties can have a protective effect against neighborhood disorder and social disorganization and has informed psychological interventions to promote resilience in structurally disadvantaged (i.e., poor, high crime rates, neighborhood disorder)

communities (Wandersman and Nation 1998). Furthermore, beyond the physical structural reality of neighborhoods, the perceptions that residents have of their neighborhoods are intricately tied to their lived experiences and mental well-being. As such, the study of these perceptions, such as self-reported neighborhood cohesion, and how they are associated with mental health outcomes deserves attention in the community psychology literature.

2.3.1 | Neighborhood Cohesion

Neighborhood social cohesion can be described as the extent of interconnectedness and unity among individuals residing within an immediate shared geographic location (Echeverría et al. 2008). Broadly, it encompasses the perceived capacity of fellow residents to translate social connections into tangible support and action for the benefit of the common good (Schiefer and van der Noll 2017), as evidenced by its frequent operationalization as perceived trust, help, and reliance among residents. Many cultural and contextual factors can dictate the importance, role, and utility of social ties and connections (Taylor et al. 2004). Research on the relationship between types of social support and negative well-being (i.e., depression and anxiety) across ethnically minoritized groups found that the source and nature of support had a differing impact on outcomes across groups (Vera et al. 2020). Specifically, for Latines, social support from family and school, rather than the community/neighborhood, was significantly related to less anxiety and depression compared to NL-Black and Asian Americans. This research points to the heterogeneity in associations between social support and mental health.

While social support may be all-encompassing of support received by anyone in one's social network, neighborhood cohesion refers to more proximate support rendered, perceived, and/or experienced within the immediate neighborhood. Research has shown the impact of neighborhood characteristics such as racial/ethnic composition, level of disorder, crime/violence exposure, and turnaround rate of residents on the social fabric of neighborhoods and in turn mental health outcomes of residents. Residential mobility, or the frequency of resident turnover, in particular, can be detrimental to the ability to form lasting connections among neighbors (Sampson and Groves 1989). The lack of strong and lasting connections may prevent reaping the benefits from one's neighborhood concerning health and well-being. Gepty et al. (2022) longitudinal study with African American adolescents found that having moved in the past year was associated with perceiving lower neighborhood cohesion, which was related to more depressive symptoms. On a similar note, research on the effect of discriminatory housing practices on Black youth's mental health found that neighborhood cohesion mediated the relationship between these systemically disadvantaging practices and symptoms of depression and anxiety (Sadler et al. 2022). Specifically, higher levels of depressive and anxiety symptoms were present most for young girls in gentrifying neighborhoods that reported lower neighborhood cohesion. While important to distinguish between direct measures of structural neighborhood factors and assessments of residents' perception of their surroundings and

social factors, clearly both objective and subjective aspects of neighborhoods are in constant interplay and affect each other, and subsequently well-being.

Research focusing on neighborhood social factors has identified a clear relationship between residents' perceived neighborhood cohesion and mental and physical health. For example, Rios et al. (2012) assessed the relationship between neighborhood social cohesion and physical health and psychological distress in a sample of Latine and NL-White adults. Their analyses first identified that individuals' ratings of their neighborhood cohesiveness mediated the relationship between neighborhood SES and health outcomes. Specifically, they found that higher neighborhood SES was associated with greater neighborhood cohesion, which predicted better health and lower distress for all groups. However, this relationship was most pronounced for Latine adults compared to non-Latine adults (Rios et al. 2012). Other studies also indicate that lower social cohesion of neighborhoods, assessed by structural factors rather than resident perceptions, is strongly associated with the greater severity of depression and anxiety symptoms among adults (Generaal et al. 2019). Further reviews of research with adolescents and young adults similarly identified the consistent pattern of higher neighborhood cohesion, operationalized as both perceived connectedness and neighborhood-level factors such as self-reported safety and violence, is strongly associated with lower levels of depression symptoms (Breedvelt et al. 2022).

Previous research shows that neighborhood cohesion, regardless of how it is measured, is strongly linked to markers of mental health across the lifespan. However, studies have focused on psychological distress and depression rather than anxiety mostly within adolescent or youth samples and have not explored differences in this relationship across racial/ethnic groups during adulthood. While neighborhood cohesion is known to be a source of support against the development of mental health issues, less is known about its direct connection to symptoms of anxiety, which affect many US adults. Further, it remains unclear whether the association between neighborhood cohesion and symptoms of anxiety differs among racial/ethnic groups. The differences in the prevalence of anxiety symptoms and the importance that local social support holds across racial/ethnic groups underscore the importance of the present study.

2.4 | Present Study

Our study addresses this gap in the literature by assessing the relationship between neighborhood cohesion and symptoms of anxiety in a nationally representative sample of non-institutionalized US adults. The following hypotheses are guided by the literature examined above: (1) We expect higher levels of neighborhood cohesion to be associated with less frequent symptoms among adults in the US, and (2) we hypothesize that the association between neighborhood cohesion and anxiety symptoms will differ by race/ethnicity. We will account for potential confounders in all of our models by controlling for demographic and socioeconomic characteristics and length of residence in the neighborhood.

3 | Data and Methods

3.1 | Data and Analytic Sample

Data for this study are from the National Health Interview Survey (NHIS), a cross-sectional household interview-based survey conducted every year on a nationally representative sample of the US population. The data were accessed through the Integrated Public Use Microdata Series—Health Surveys (IPUMS-Health) of the University of Minnesota (Blewett et al. 2022). We used data collected between 2013 and 2018 given that information about symptoms of anxiety and neighborhood characteristics relating to cohesion were collected as part of the Sample Adult Component during those years. Data were used up to 2018 due to the substantial revision in NHIS in 2019 and to avoid any bias that could have resulted from the COVID-19 pandemic (2020 data collection halted, 2021–2022 comparability).

The initial data set consisted of 103,089 observations. Using listwise deletion method, we limited our analysis to respondents who had provided valid responses (i.e., excluding respondents with missing data) on the variables included in our analyses (10,956 observations were excluded). In addition, given the emphasis on race/ethnicity, we excluded respondents classified as NL-Other (2525 observations), given that we could not responsibly interpret any association derived from this group in the proposed analyses. This resulted in an analytic sample of 89,617 observations. We ran descriptive statistics on the analytic sample compared to the excluded sample due to missingness. A comparative analysis of demographics across the analytic sample and excluded sample yielded the following: individuals with missing data tended to be slightly older, more female, and more likely to be part of a racially/ethnically minoritized group (see Table S1). Additionally, slightly more observations were missing from earlier years of the data collection. We conducted a Missing at Random (MAR) analysis and found that the following variables were not missing at random: (1) the items of the neighborhood cohesion scale and (2) poverty status. Given that the four items of the neighborhood cohesion scale were collected together, it made sense that they would not be missing at random. Our second finding indicated that poverty status was not missing at random ($n = 4592$). This is a well-documented phenomenon occurring within the NHIS (Chen et al. 2008). While the main analysis excludes these observations, a supplemental analysis incorporated missing poverty status as a category following past recommendations (Kim et al. 2007). We discuss these results in our Sensitivity Analysis section.

3.2 | Measures

3.2.1 | Frequency of Anxiety Symptoms

The NHIS collects information on the frequency of cognitive symptoms of anxiety. Every year, they ask respondents: "How often do you feel worried, nervous, or anxious?" Responses were captured through a 5-point Likert scale (1) *Daily*, (2) *Weekly*, (3) *Monthly*, (4) *A few times a year*, (5) *Never*. We reverse-coded this scale so that a higher score reflects a higher frequency of symptoms within our descriptive analysis and

empirical models. We also produced a dichotomous variable indicating whether or not respondents reported weekly/daily symptoms of anxiety.

3.2.2 | Neighborhood Cohesion Index

Neighborhood cohesion was measured through a composite mean score of four questions. Each of these questions asked respondents their level of agreement with a specific prompt about their neighborhood. The four items evaluated were as follows: (1) “How much do you agree that this is a close-knit neighborhood”, (2) “...there are people you can count on in this neighborhood”, (3) “...people in this neighborhood can be trusted”, and (4) “...people in this neighborhood help each other out”. Responses for each item were captured through a 4-point Likert scale from (1) *Definitely Agree* to (4) *Definitely Disagree*, which we reverse coded from the original values so higher values reflect higher agreement. We conducted a Cronbach’s α for these four items to measure their internal consistency within our sample. The population-level Cronbach’s α across these four items was $\alpha = 0.893$ (95% CI = 0.891, 0.894). This indicates a strong internal consistency among all the items when combined into a single index. We ran the Cronbach’s alpha separately by race/ethnicity group and the results were consistent throughout the sample, ranging from $\alpha = 0.88$ – 0.90 . The average of these four items is our Neighborhood Cohesion Index (range 1 to 4), with higher scores indicating a perception of a more cohesive neighborhood.

3.2.3 | Race/Ethnicity

Race/ethnicity was measured categorically based on respondents’ self-identified race and ethnicity. Using both variables, we first determined if respondents were of Latine ethnicity, and non-Latine respondents were assigned their self-reported race. Adjusting for survey design, the composition for the analytic sample was: Latine (16.04%), NL-Asian (5.64%), NL-Black/African American (11.27%), and NL-White (67.05%).

3.2.4 | Time in Current Neighborhood

The amount of time lived in the present neighborhood was measured categorically with response options including: (1) *less than a year*, (2) *1–3 years*, (3) *4–10 years*, (4) *11–20 years*, and (5) *more than 20 years*.

3.2.5 | Demographic and Socioeconomic Covariates

Our study considers various covariates in our estimation of the empirical associations of interest. Age was measured as a continuous variable with the mean age of respondents being 50.2 years (SD = 18.28, range 18–85 years), and when the analysis incorporated a complex survey design the weighted mean age was 47.1 years. Age was top-coded at 85 years. Gender was measured as a dichotomous variable indicating whether the

respondent identified as female or male. The NHIS does not provide response options for transgender or nonbinary gender identifications during the period of analysis. The analytical sample was relatively balanced in terms of respondents’ gender with female respondents representing 55% of the sample. Marital status was assessed categorically based on whether the respondent indicated being (1) *Single/Never Married*, (2) *Married*, (3) *Divorced/Separated*, or (4) *Widowed*. Educational attainment was collected by self-report and operationalized as a six-level categorical variable indicating the respondent’s highest level of completed education. The categories were as follows: Below High School, High School Diploma/GED, Some college (no degree), Academic or Technical associate degree, Bachelor’s degree, and Master’s degree or higher. We also accounted for poverty status. Poverty was measured as a dichotomous variable indicating whether the respondent lives below or at/above the poverty threshold (as assessed at the time the data were collected) based on poverty levels as determined by the US Census Bureau. Approximately 14.5% of the analytic sample reported being below the poverty level and 11.7% when accounting for complex survey design. Finally, we also controlled for year of interview to account for potential trends.

3.3 | Analytic Strategy

All data analyses were conducted using RStudio version 1.4.1717. We accounted for complex survey design by utilizing the *survey* package in our descriptive and empirical models so that results are generalizable to the US adult population. Following the NHIS methodological guidelines, we created a new weight variable to apply the correct survey weights based on the year of data collection. For observations collected between 2013 and 2017, we used SUPPWT1 (Supplemental Person Weight), and for observations collected in 2018, we used SAMPWEIGHT (Sample Person Weight). We also accounted for the primary sampling unit and strata to account for the additional elements of the survey design in the calculation of standard errors, and subsequent significance tests.

First, we produced weighted descriptive statistics for each of our measures as presented in Table 1. Second, we tested our hypotheses using weighted generalized linear regression models. This was accomplished by modeling the frequency of anxiety symptoms and exploring the interaction effect between race/ethnicity and neighborhood cohesion. All models accounted for demographic and socioeconomic covariates and length of residence (Table 2). Third, we fit four models that evaluated the strength of association between neighborhood cohesion for respondents of each racial/ethnic group while accounting for potential confounders (Table 3). The interaction allowed us to test for differences in the association, and the stratified model allowed us to see the differences in strength and magnitude by race/ethnicity. We also conducted a series of tests to determine whether the associations between neighborhood cohesion differed across groups (Table 4). Finally, we conducted our sensitivity analysis (see Section 4.3).

TABLE 1 | Descriptive statistics for the overall sample and by race/ethnicity, NHIS 2013–2018 (*n* = 89,617).

	Overall, <i>N</i> = 203,187,875 ^a	Race/ethnicity (weighted population)			<i>p</i> value ^b
		Non-Latine Asian, <i>N</i> = 11,467,819 ^a	Non-Latine Black/ AA, <i>N</i> = 22,907,673 ^a	Non-Latine White, <i>N</i> = 136,232,168 ^a	Latine, <i>N</i> = 32,580,215 ^a
Frequency of Anxiety Symptoms					< 0.001
Never	40.7	48.6	48.8	37.1	47.1
A few times a year	30.1	31.4	29.8	30.6	27.7
Monthly	9.2	8.4	6.9	10.0	8.0
Weekly	10.9	7.0	7.1	12.3	9.3
Daily	9.0	4.6	7.4	9.9	7.9
Report of Daily/Weekly Anxiety Symptoms					< 0.001
No	80.1	88.4	85.5	77.8	82.8
Yes	19.9	11.6	14.5	22.2	17.2
Neighborhood cohesion index	3.1 (0.8)	3.1 (0.7)	2.9 (0.9)	3.2 (0.8)	2.9 (0.8)
Time in Current Neighborhood					< 0.001
Less than 1 yr	11.7	14.1	13.8	10.8	13.3
1–3 yrs	20.7	24.8	23.9	19.0	23.9
4–10 yrs	25.7	29.6	26.4	24.2	30.1
11–20 yrs	20.1	18.9	17.7	20.7	19.6
More than 20 yrs	21.8	12.5	18.2	25.3	13.1
Age at time of interview	47.1 (17.9)	44.6 (16.6)	44.5 (17.3)	49.2 (18.1)	41.3 (16.2)
Sex					< 0.001
Female	51.3	53.5	54.4	51.0	49.5
Male	48.7	46.5	45.6	49.0	50.5
Marital status					< 0.001
Single	26.9	23.9	43.1	22.8	33.4
Married	54.1	65.1	33.9	57.3	50.9
Separated/Divorced	13.3	6.8	17.2	13.4	12.3
Widowed	5.8	4.1	5.8	6.5	3.4
Educational attainment					< 0.001
Below high school (HS)	12.2	9.3	14.9	7.7	30.6

(Continues)

TABLE 1 | (Continued)

	Overall, N = 203,187,875 ^a	Race/ethnicity (weighted population)			p value ^b
		Non-Latine Asian, N = 11,467,819 ^a	Non-Latine Black/ AA, N = 22,907,673 ^a	Non-Latine White, N = 136,232,168 ^a	
HS/GED	24.5	15.0	29.5	24.0	26.5
Some college	19.3	13.5	23.1	19.5	18.0
AA	47.6	7.7	10.4	12.7	9.5
Bachelor's	20.5	31.5	14.7	22.8	11.2
Master's or higher	11.9	23.0	7.5	13.5	4.2
Poverty status					< 0.001
Above threshold	88.3	88.4	78.3	92.0	80.1
Below threshold	11.7	11.6	21.7	8.0	19.9
Year					0.6
2013	15.9	15.3	15.7	16.3	14.9
2014	16.6	15.6	16.8	16.7	16.2
2015	16.1	15.2	16.1	16.1	16.1
2016	17.0	17.6	17.0	16.8	17.2
2017	17.1	18.0	17.4	16.9	17.5
2018	17.4	18.3	17.1	17.2	18.0

^a%; Mean(SD).^b χ^2 test with Rao & Scott's second-order correction; Wilcoxon rank-sum test for complex survey samples.

TABLE 2 | Weighted generalized linear regression models predicting frequency of anxiety symptoms among US adults, NHIS 2013–2018 ($n = 89,617$).

Characteristic	Model 1 (Main Effects)		Model 2 (Model 1 + Interaction)	
	Beta	95% CI	Beta	95% CI
Race/Ethnicity (reference = NL-White)				
NL-Asian	−0.46**	−0.51, −0.41	−0.60**	−0.83, −0.37
NL-Black/AA	−0.49**	−0.53, −0.45	−0.78**	−0.92, −0.64
Latine	−0.39**	−0.42, −0.35	−0.58**	−0.71, −0.45
Neighborhood Cohesion Index	−0.16**	−0.18, −0.14	−0.19**	−0.21, −0.17
Time in neighborhood (reference = less than 1 year)				
1–3 years	−0.01	−0.05, 0.03	−0.01	−0.05, 0.03
4–10 years	−0.02	−0.06, 0.02	−0.02	−0.06, 0.02
11–20 years	−0.04	−0.08, 0.01	−0.04	−0.09, 0.01
More than 20 years	−0.10**	−0.15, −0.05	−0.10**	−0.15, −0.05
Marital Status (reference = single)				
Married	−0.11**	−0.14, −0.08	−0.11**	−0.14, −0.08
Separated/Divorced	0.10**	0.06, 0.14	0.10**	0.06, 0.14
Widowed	−0.04	−0.09, 0.01	−0.04	−0.10, 0.01
Age at the time of interview	−0.01**	−0.01, −0.01	−0.01**	−0.01, −0.01
Educational attainment (reference = below high school)				
HS/GED	−0.05*	−0.09, −0.01	−0.05*	−0.09, −0.01
Some college	0.04	0.00, 0.08	0.04	0.00, 0.08
AA	−0.02	−0.07, 0.03	−0.02	−0.07, 0.03
Bachelor's degree	−0.01	−0.05, 0.03	−0.01	−0.05, 0.03
Master's or higher	0.04	−0.01, 0.09	0.04	−0.01, 0.09
Sex (reference = female)				
Male	−0.30**	−0.32, −0.28	−0.30**	−0.32, −0.28
Poverty status (reference = above poverty threshold)				
Below threshold	0.25**	0.22, 0.29	0.26**	0.22, 0.29
Survey year	0.03**	0.02, 0.04	0.03**	0.02, 0.04
Race/Ethnicity × Neighborhood Cohesion Index (reference = NL-White × neighborhood cohesion)				
NL-Asian × Neighborhood Cohesion Index			0.04	−0.02, 0.11
NL-Black/AA × Neighborhood Cohesion Index			0.10**	0.05, 0.14
Latine × Neighborhood Cohesion Index			0.06**	0.02, 0.11

Abbreviations: CI = confidence interval, NL = non-Latine.

* $p < 0.05$; ** $p < 0.01$.

4 | Results

4.1 | Descriptive Analysis

Table 1 presents weighted percentages or means of all variables included in the analyses for the overall sample and by racial/ethnic group, with appropriate statistical tests for differences. Approximately 20% of the overall sample reported daily/weekly symptoms of anxiety. By race/ethnicity, NL-Whites reported anxiety symptoms at a higher frequency than adults from racially/ethnically minoritized groups. When comparing the percent of the population reporting daily/weekly anxiety, about

22% of NL-White adults reported the outcome which is significantly higher than the percentages for NL-Asian, NL-Black/African American, and Latine adults (12%, 15%, 17%, respectively). In terms of the Neighborhood Cohesion Index, our key independent variable of interest, we found that the overall population reported a mean of 3.1, which indicates a general agreement with perceived cohesion of neighborhoods. Results showed that the reported levels of perceived neighborhood cohesion differed significantly across racial/ethnic groups such that NL-White adults reported the highest level of neighborhood cohesion ($M = 3.2$) closely followed by NL-Asians ($M = 3.1$) with NL-Black and Latine groups reporting the lowest ($M = 2.9$).

TABLE 3 | Weighted generalized linear regression models predicting frequency of anxiety symptoms among US adults stratified by race/ethnicity, NHIS 2013–2018 ($n = 89,617$).

Characteristic	NL-Asian ($n = 4,745$)			NL-Black/AA ($n = 10,748$)			NL-White ($n = 60,959$)			Latine ($n = 13,165$)		
	Beta	95% CI		Beta	95% CI		Beta	95% CI		Beta	95% CI	
Neighborhood Cohesion Index	-0.15**	-0.22, -0.08		-0.10**	-0.14, -0.06		-0.18**	-0.20, -0.16		-0.14**	-0.18, -0.11	
Time in neighborhood (reference = less than 1 year)												
1–3 years	0.01	-0.13, 0.15		-0.09	-0.20, 0.03		0.02	-0.03, 0.08		-0.06	-0.16, 0.04	
4–10 years	-0.03	-0.17, 0.11		-0.10	-0.22, 0.01		0.01	-0.05, 0.07		-0.05	-0.15, 0.05	
11–20 years	0.00	-0.17, 0.16		-0.16*	-0.28, -0.03		-0.02	-0.08, 0.04		0.00	-0.11, 0.11	
More than 20 years	-0.08	-0.28, 0.12		-0.20**	-0.33, -0.08		-0.07*	-0.13, -0.01		-0.09	-0.21, 0.03	
Marital Status (reference = single)												
Married	-0.16**	-0.28, -0.04		-0.10*	-0.17, -0.02		-0.09**	-0.13, -0.05		-0.20**	-0.27, -0.12	
Separated/Divorced	0.08	-0.10, 0.26		0.08	-0.01, 0.18		0.11 **	0.06, 0.16		0.01	-0.10, 0.12	
Widowed	0.10	-0.13, 0.33		-0.11	-0.24, 0.02		-0.04	-0.10, 0.03		-0.08	-0.26, 0.10	
Age at the time of interview	0.00*	-0.01, 0.00		0.00	0.00, 0.00		-0.01**	-0.01, -0.01		0.00	0.00, 0.00	
Educational attainment (reference = below high school)												
HS/GED	0.06	-0.17, 0.28		-0.08	-0.18, 0.03		-0.12**	-0.18, -0.06		0.06	-0.03, 0.15	
Some college	0.18	-0.05, 0.42		0.02	-0.10, 0.13		-0.05	-0.11, 0.02		0.19**	0.10, 0.28	
AA	0.12	-0.14, 0.38		-0.09	-0.22, 0.04		-0.10**	-0.16, -0.03		0.14**	0.04, 0.24	
BA	0.11	-0.10, 0.33		-0.04	-0.16, 0.08		-0.09	-0.15, -0.03		0.10	0.01, 0.20	
Master's or higher	0.10	-0.12, 0.32		-0.04	-0.19, 0.11		-0.03	-0.09, 0.03		0.27**	0.13, 0.41	
Sex (reference = female)												
Male	-0.14**	-0.22, -0.05		-0.15**	-0.22, -0.09		-0.36**	-0.39, -0.33		-0.23**	-0.29, -0.16	
Poverty status (reference = above poverty threshold)												
Below threshold	0.02	-0.12, 0.16		0.27 **	0.18, 0.36		0.32 **	0.26, 0.38		0.18**	0.11, 0.26	
Survey year	0.02	-0.01, 0.04		0.00	-0.02, 0.02		0.04 **	0.03, 0.05		0.01	-0.01, 0.03	

Abbreviation: CI = confidence interval.
 * $p < 0.05$; ** $p < 0.01$.

TABLE 4 | Beta coefficients of the neighborhood cohesion \times race/ethnicity interaction effects in predicting anxiety symptoms varying the reference group.

Reference group	Latine (β)	NL-Asian (β)	NL-Black/AA (β)
Latine	—	—	—
NL - Asian	−0.02	—	—
NL - Black/AA	0.03	0.05	—
NL - White	−0.06**	−0.04	−0.10**

** $p < 0.01$.

We also include a measure of time in neighborhood to capture any added benefit that both residential stability and the time required to build social trust within a neighborhood may have on our outcome. Within the overall sample, we found most respondents had lived in their neighborhood for more than 1 year and up to around 10 years. By race/ethnicity, we found distinctive patterns of length of residence. For instance, about 46% of NL-White adults reported living in the same neighborhood for 11 years or more. On the other hand, the percentage of adults from racially and ethnically minoritized groups that reported residence in the same neighborhood for 11 or more years was much lower (NL-Asian = 32%, NL-Black/AA = 36%, and Latine = 33%).

There were also differences in education attainment across racial/ethnic groups with NL-Asian reporting the highest educational attainment followed by NL-Whites with NL-Black and Latine population reporting the lowest levels. Additionally, NL-Black adults had the most respondents living below the poverty threshold (22%), followed by Latines (20%), with NL-Asian (12%) and NL-White (8%) adults.

The average age for the overall sample was 47 years, with the NL-White sample being slightly older than the samples from other racial/ethnic groups (49 years of age, vs. Age_{NL-Asian} = 45 years, Age_{NL-Black/AA} = 45 years and Age_{Latine} = 41 years, $p < 0.001$). The sample and subsamples were relatively balanced in terms of the gender of respondents. The number of observations contributed by each year of the NHIS was relatively balanced and this was also found in our empirical test of sample distribution (see Table 1).

4.2 | Regression Models

We hypothesized that increased neighborhood cohesion would be associated with less frequency of anxiety symptoms. In Table 2, we provide the coefficients derived from the generalized linear regression model predicting the frequency of anxiety including the main effects for race/ethnicity and neighborhood cohesion, while controlling for covariates (Model 1). Results show that higher neighborhood cohesion is associated with lower frequency of anxiety symptoms ($\beta = -0.16$, 95% CI = $-0.18, -0.14$, $p < 0.001$), supporting our first hypothesis. We find that respondents from racially and ethnically minoritized groups exhibit significantly lower levels of symptoms of anxiety than the NL-White adults reference group.

In our second hypothesis, we expected that the association between neighborhood cohesion and symptoms of anxiety would differ by racial/ethnic group. Model 2 incorporates an interaction between neighborhood cohesion and race/ethnicity with NL-White as the reference group (see Table 2). Results revealed a significant interaction effect, with the strength of the association significantly differing for NL-Black/African Americans and Latine adults compared to the NL-White reference group ($p < 0.001$ for both), but no difference was found in this effect between NL-White and NL-Asian adults. To calculate the effects of neighborhood association for each population subgroup, we ran our fully specified model with for the subsample from each race/ethnicity. Table 3 presents stratified models by race/ethnicity, and we focus on the role of neighborhood cohesion in predicting the frequency of anxiety symptoms for respondents from each racial/ethnic group. Neighborhood cohesion was associated with less frequent anxiety symptoms for respondents from every racial/ethnic group, but there are elements of these associations that are worth noting. The strongest and least variable association between neighborhood cohesion and anxiety existed for NL-White adults ($\beta = -0.18$, 95% CI = $-0.20, -0.16$, $p < 0.001$). This was followed by NL-Asian adults ($\beta = -0.15$, 95% CI = $-0.22, -0.08$, $p < 0.001$), which had the widest confidence interval across the groups, and then closely by Latine adults ($\beta = -0.14$, 95% CI = $-0.18, -0.11$, $p < 0.001$). Lastly, for NL-Black/African American adults we found the weakest association, albeit significant, between neighborhood cohesion and decreased frequency of anxiety symptoms ($\beta = -0.10$, 95% CI = $-0.14, -0.06$, $p < 0.001$). These results indicate that while more cohesive and close-knit neighborhoods are overall protective for adults in the US across racial/ethnic groups, the strength of this relationship and benefit of neighborhood cohesion is strongest for NL-White adults and weakest for NL-Black adults.

To test for differences between racial/ethnic groups, we tested the interaction varying the reference group to be able to ascertain whether the effect varied in comparison to other groups. Table 4 provides the coefficients (β) and significance level for the interaction term for each of these models. Our results indicate that the association between neighborhood cohesion and anxiety symptoms are different between Latine and NL-Black/AA and NL-White adults. No other difference was observed. Thus, there is support for our second hypothesis; with the one exception being the findings that the effect for NL-Asian adults did not differ from the one observed for NL-White. While the association between neighborhood cohesion and symptoms of anxiety did not significantly differ between Latine, NL-Black/AA, and NL-Asian, there were differences between NL-White and Latine and NL-Black/AA groups.

4.3 | Sensitivity Analyses

We ran a series of additional models to test the consistency of our findings. First, we specified our empirical model as an ordered logit model to explore whether the consideration of the outcome as an ordered factor would influence the main findings. The results derived from the ordered logit model were consistent with those presented in Table 1. Thus, our results are robust to alternate model specifications. Second, we focused on

how we measured neighborhood cohesion. To accomplish this, we generated an alternate measure of the Neighborhood Cohesion Index where each component was dichotomized to only capture those who answered “*Definitely Agree*” in each of the four items as done in other studies (Miller et al. 2022). This measure ranged from zero to four and was calculated by adding the four dichotomous indicators. This second version of the Neighborhood Cohesion Index only assigned a value to respondents based on total agreement on each item, as opposed to a gradient, as our initial index did. The results were consistent with those presented in the main analysis. Thus, the findings are robust even when neighborhood cohesion is operationalized in a different way. Our third robustness test was to run the model using a dichotomous measure of anxiety symptoms (daily/weekly anxiety) rather than a continuous outcome. We ran two additional models using this dichotomous measure, employing the aforementioned measure of neighborhood cohesion. In these models, we found an interaction effect, but a significant effect was only found for Latine adults. This may be because the dichotomous measure reduces the level of variation captured by the Likert-scale metric employed in the main analyses (Tables 2 and 3). The results derived from this analysis underscore the impact that dichotomization of scales may have on results and the implications of such choices. Despite these limitations, the emergence of the interaction effect (albeit limited) reinforces our trust in the findings discussed in this article. Our fourth and final robustness check incorporates missing values found in poverty status, where evidence of non-randomness in missing status was found, as a category considered within our empirical model. The results derived from these analyses were consistent with those shown in the main analyses. Indicating that the results are not affected by the inclusion/exclusion of these observations. This reinforces our conclusions and the reliability of our analyses.

5 | Discussion

Guided by the Social Disorganization and Pluralistic Neighborhood theories, this study builds on the emerging literature that takes a critical look at the impact of social neighborhood factors on markers of mental health. We explored whether the association between resident's perception of their neighborhood's level of social cohesion and reported frequency of anxiety symptoms varied by race/ethnicity. We tested this by estimating interaction effects between neighborhood cohesion and race/ethnicity, and fitting regression stratified by race/ethnicity. All models account for demographic and socioeconomic characteristics and length of residence in the current neighborhood.

Our regression models lend support to our hypotheses. Higher perceived neighborhood cohesion is associated with less frequent symptoms of anxiety across groups. Further, there was a significant interaction between racial/ethnic group and neighborhood cohesion in predicting anxiety symptoms such that the strength of this relationship differed significantly between NL-White adults and Latine and NL-Black/AA groups. While neighborhood cohesion was related to less anxiety for every group, this effect was strongest among NL-White and NL-Asian adults. This is in line with previous findings showing that the

protective effect of social cohesion and support is not uniform, and that it varies by race/ethnicity (Chapman and Santos-Lozada 2020; Shim et al. 2012). Specifically, much like Gayman et al. (2014) our study also found that social cohesion was associated with better indicators of mental health for all groups but most for NL-White individuals.

Our findings indicate that the relationships between social and contextual factors and markers of mental health such as anxiety symptoms are more complex than past research may have assumed. Multiple factors could be shaping the heterogeneity in the effects. First, previous studies have documented that people from racially/ethnically minoritized groups tend to report anxiety at lower rates than NL-White adults (Asnaani et al. 2010; Chen et al. 2019; Williams et al. 2012). Our study found results consistent with past studies. In the descriptive analysis, we also show that NL-White adults have the highest neighborhood social cohesion score, followed by NL-Asian and then by NL-Black and Latine adults. These descriptive differences could be driving some of the results as reporting higher levels of both anxiety symptoms and neighborhood cohesion could have contributed to the statistical strength of the relationship for NL-White adults. While the reported levels of neighborhood cohesion were similar across the groups, our findings suggest that NL-Black and Latine adults do not benefit as much from increased levels of neighborhood cohesion in terms of reduced frequency of anxiety symptoms as their NL-White and NL-Asian counterparts.

Additional explanations may underlie these results. Our finding regarding NL-Asians not differing significantly from NL-Whites may be due to other factors not assessed in our study. Specifically, respondents that encompassed the NL-Asian adult subsample could have come from a range of neighborhoods with more or less ethnic density (i.e., other Asian neighbors) and with various degrees of immigrant statuses, which have been shown to impact the formation of social cohesion and subsequent mental health (Osypuk et al. 2009; Hong et al. 2014), and could explain why the confidence interval was so wide for this group. This is a matter for a future study. We also found comparable associations between neighborhood cohesion and anxiety symptoms for NL-Asians and Latines. This is consistent with previous research on the relationship between social cohesion and mental health, which has shown that this association is similar for Asian Americans and Latines in the US (Hong et al. 2014). Future studies could seek to better understand these nuances by examining the role of neighborhood composition and assimilation/acculturation within heterogeneous Latine and Asian samples. Particular attention must be given to the protective role that social enclaves may have concerning mental health (Tam 2019). However, these pursuits are beyond the scope of this study.

Past research has also found similar patterns between neighborhood cohesion and health outcomes to what was observed here for racially/ethnically minoritized groups. For instance, Mulvaney-Day et al. (2007) found that for Latines, neighborhood social cohesion was not significantly associated with self-reported physical or mental health, after controlling for the effects of other factors of social connection such as family and friend support (Mulvaney-Day et al. 2007). This shows that

individual levels of social support rather than community connections may be of more importance for Latine adults in the US. Other literature has proposed that Black Americans do not benefit equally from social cohesion regarding the advantages that social capital (a form of social connectedness) can yield as well as it not serving as a protective factor from developing physical health problems (Kawachi and Berkman 2000; Rosenblatt et al. 2021). In a study with Black women, Cutrona et al. (2000) found that community cohesion was negatively related to psychological distress, but this relationship was no longer significant when accounting for individual-level characteristics such as negative affectivity and optimism (Cutrona et al. 2000).

In a population-level study that focused on the intersection of being from a racially/ethnically minoritized group and sexual minority status, Miller et al. (2022) also showed that neighborhood cohesion was found to decrease the likelihood of sexual minorities being severely psychologically distressed (Miller et al. 2022). Similar to our findings, this effect was stronger for NL-White sexual minorities compared to both queer people of color and even nonsexual minorities. Furthermore, the structural realities, permeated with racist and inequitable practices, in which people of color in the US exist, are intricately tied to their neighborhood social contexts and subsequent well-being (Braveman et al. 2022; Sadler et al. 2022). These points highlight that community and/or social cohesion can assert its influence on health outcomes at different levels and these effects cannot be fully separated from the individuals, cultural backgrounds, and the contexts in which these social connections take place. Altogether, it is apparent that the impact of neighborhood social factors, in addition to structural level characteristics, on markers of mental health manifests distinctly across population subgroups in the US.

Another factor that may contribute to perceived neighborhood cohesion and the benefits derived from this cohesion is residential stability. This is highly relevant as past scholarship has found that residential stability is strongly related to community building and social connections (Oishi et al. 2007; Ross et al. 2000). Of importance to note, within our study, we found that the length of time in current residence significantly differed across racial/ethnic groups, such that NL-Black and Latine adults had a lower percent of the population who had lived in the same neighborhood for more than 10 years, compared to NL-Asian and NL-White adults (see Table 1). Stability in a neighborhood and residence has been found to be related to health and behavioral outcomes in children, such that moving more at an early age is related to behavioral problems as well as depression (Jelleyman and Spencer 2008). Furthermore, recent research has also found strong evidence for the relationship between neighborhood social cohesion and residential mobility, or the frequency of moving residence, and health. Specifically, Cho (2020) study with a national health survey of US adolescents found that greater residential mobility was related to worse health, and this was mediated by perceived neighborhood cohesion (Cho 2020). Similarly, Gepty et al. (2022) found a negative association between residential mobility and perceptions of neighborhood cohesion in their study with Black adolescents. It is important to note that while residential stability can be protective, when it is compounded with structural

disadvantage it can solidify the harmful impacts of neighborhood disadvantage as studies have shown that in areas with greater economic disadvantages, residential stability was related to higher levels of distress, depression, and anxiety (Ross et al. 2000; Schieman 2005). Therefore, taking a Pluralistic perspective on the dynamic relationship between residents and the structural reality of their neighborhoods can help us understand the ever-evolving social fabric of neighborhoods and expand our understanding of health in the US. While residential stability is important in forming social ties and connectedness, its benefits are most pronounced in economically advantaged situations, although this has mainly been assessed in children and adolescents and merits further study across the lifespan. Our study contributes to this body of work by exploring this with a focus on adults.

5.1 | Future Directions

The nuanced role that neighborhood characteristics, social cohesion, and residential stability play in outcomes of well-being across different racial/ethnic groups in the US is an underdeveloped area of research. Future studies would be advised to take a multilevel approach to studying the variety of neighborhood and individual factors that may impact indicators of mental health. This could be extended further by assessing multiple levels of neighborhoods (i.e., social, individual perceptions, structural characteristics, historical housing practices) and how they interact to impact residents' well-being. Additionally, the COVID-19 pandemic has influenced patterns of worry, and the prevalence of anxiety (McKnight-Eily et al. 2021) and likely impacted neighborhood cohesion levels. To further explore the effect of such a monumental period, future studies could assess the relationship between symptoms of anxiety and neighborhood characteristics in the years after 2020. Furthermore, research does indicate that there are additional differences between ethnic subgroups, particularly within Latine and Asian groups based on country of origin as well as immigrant status (i.e., first or second-generation; Hong et al. 2014). Examining these associations within subgroups would likely provide a further nuanced understanding of the observed patterns. Given that this was beyond the focus of the present study, it is recommended that future research examine the relationship between neighborhood cohesion and mental health outcomes by ethnic subgroups.

6 | Strengths and Limitations

This study has several strengths including the use of a nationally representative sample and multi-item metric for the social cohesion index. However, there are also limitations to consider. One limitation is that the NHIS data set used in this study was collected cross-sectionally over 5 years, meaning that data was sampled from different individuals across the US each year rather than following the same individuals over time. This cross-sectional design does not allow for the inference of causality between the anxiety symptoms and neighborhood cohesion. Despite this, the strength of the relationship between the variables of interest is still valuable, even though a causal effect cannot be claimed.

The reliance on self-report for data collection is also a potential limitation, especially as we aimed to compare anxiety symptoms and its predictors across different groups. Research suggests that there may be different cultural conceptualizations of worry (Schwartz and Melech 2000), meaning that what one person perceives as worry or anxiety may be experienced as stress or financial obligations by someone else. Moreover, our assessment of anxiety symptoms was based on a single item, which limited the range of experiences captured and made it difficult to disentangle the differences between anxiety, nervousness, and worry. The use of other cross-culturally validated tools to assess symptoms of anxiety that also include physical symptoms could have provided a more robust evaluation. A follow-up study where these same variables are assessed with expanded culturally appropriate measurements, across more recent years could also provide a more in-depth look into the mechanism at play that may explain why neighborhood cohesion was more protective for NL-White Americans than NL-Black and Latine Americans. Yet, our study was constrained by the available data and measurements in the NHIS data set. Lastly, assessing the impact of objective residential area characteristics is of theoretical and practical importance to better understand the influence of structural factors on neighborhood cohesion and thus well-being. However, such pursuits require access to restricted NHIS data. Nevertheless, we are contributing to the literature because self-perceived neighborhood elements are also an important area of analysis. Future studies are encouraged to tie structural/neighborhood factors to perceived neighborhood cohesion and reported measures of well-being to better uncover the possible mediating mechanisms.

7 | Conclusion

Our study indicates that there is a strong association between self-perceived neighborhood cohesion and frequency of anxiety symptoms across adults in the US and that the strength of this relationship differs by race/ethnicity. Specifically, our findings show that NL-White adults are reporting a higher frequency of anxiety and higher levels of neighborhood cohesion. As their perceived level of cohesion, support, and trustworthiness of their neighborhoods increases, the frequency of anxiety symptoms decreases steadily. The patterns for NL-Asian are consistent with those found among NL-White adults. However, the association between increased neighborhood cohesion and decreased symptoms of anxiety does not surface as prominently for NL-Black and Latine adults in the United States. This indicates that this relationship may be more complex than previously conceptualized. These results have implications both for the continued progress of psychological science and for public health as it propels us to identify protective factors, both at community and structural levels, that can reduce symptoms of psychopathology while recognizing the varying dynamic relationship between individuals and their contexts across racial/ethnic groups. Our study underscores the need for additional analyses that consider the mechanisms that may explain why “well-established” associations differ when examining the experiences of racially and ethnically minoritized individuals across the lifespan.

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Ethics Statement

Due to the data being deidentified and publicly available, this study is considered to be research not involving human subjects as defined by US regulation (45 CFR 46.102[d]) and did not require IRB approval.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available in IPUMS at <https://nhis.ipums.org/nhis/>. These data were derived from the following resources available in the public domain:- Blewett, L. A., Rivera Drew, J. A., Griffin, R., & Williams, <https://doi.org/10.18128/D070.V7.2>.

Peer Review

The peer review history for this article is available at <https://www.webofscience.com/api/gateway/wos/peer-review/10.1002/jcop.70000>.

Endnotes

¹Latine is an alternative inclusive, gender-neutral term to refer to people of Latin American descent adults. This is more commonly used throughout Spanish-speaking Latin American countries.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.