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A multilevel approach to social support as a determinant of mental health during COVID-19

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Abstract

The COVID-19 pandemic has detrimentally affected the mental health of lower income communities. We sought to investigate the relationship among multilevel social support, specifically individual-, network-, and neighborhood-level social supports, COVID-19-related stressors, and probable diagnoses of depression, anxiety, and posttraumatic stress (PTS), within a racially diverse and predominantly low-socioeconomic status population. We used multiple logistic regressions to assess the odds of diagnosis for high versus low social support and stressor levels. Participants who endorsed high levels of stress had significantly higher odds of probable diagnoses. Participants who endorsed low individual-level social support had higher odds of probable depression and anxiety. Those who endorsed low neighborhood-level social support had higher odds of probable depression and probable PTS. Network-level social support was not significantly associated with the health indicators of interest. Results indicate the importance of both individual- and neighborhood-level support to protect mental health during COVID-19.

KEYWORDS
COVID-19, mental health, neighborhood cohesion, social class, social support

1 | INTRODUCTION

Social-environmental contexts are well-documented correlates of psychological health (Brown et al., 2011; Ozbay et al., 2007; Rankin et al., 2018; Roohafza et al., 2014; Stafford et al., 2011; Thompson & Goodvin, 2016). Social environments can be conceptualized on multiple levels, most notably within individual, network, and community contexts, and research has shown that factors at each of these levels can influence mental health (Brown et al., 2009; Chou, 2012; Dassopoulos & Monnat, 2011; Duncan & Kawachi, 2018; Hurd et al., 2013; Kim & Ross, 2009; Mulvaney-Day et al., 2007; Schwarzer & Knoll, 2007; Uchino, 2004). As one particular example, previous work has shown that socially supportive environments at multiple levels are associated with improved postdisaster psychological outcomes (Arnberg et al., 2012; Galea et al., 2006, 2008; Grills-Taquechel et al., 2011; Guilaran et al., 2018; Ozbay et al., 2007; Umeda et al., 2020). However, the relation between multilevel social support and psychopathology has yet to be investigated in the context of a chronic and ongoing population-level stressor, like the COVID-19 pandemic.

The COVID-19 pandemic has exacerbated preexisting economic, educational, and health burdens for high-risk, low-income, and under-resourced communities, and particularly for non-White communities (Ambrose, 2020; Fortuna et al., 2020; Ransome et al., 2021; Wilson et al., 2020). Necessary social distancing measures shut down many dimensions of society (e.g., restaurant dining, entertainment, in-office working among nonessential workers, and in-person schooling), which in turn limited economic opportunity, particularly for low-income workers (Saltzman et al., 2020; Williams et al., 2021). As a result, rates of psychological distress significantly increased during the pandemic, particularly among lower-income populations (Ettman et al., 2020; Kapilashrami & Bhui, 2020; Purtle, 2020; Rudenstine et al., 2021). Given the role of multilevel social support on mental health in the context of population-level disasters and given the particular impact of the COVID-19 pandemic on social networks and communities, documenting the relationships between social contexts and psychiatric symptoms can help us better understand the potential role of these factors in shaping psychopathology.

1.1 | A multilevel approach to social support

Individual-level social support is often operationalized as the perception of helpfulness afforded by support systems (Ikiz & Cakar, 2010; Moreira et al., 2003; Roohafza et al., 2014; Schwarzer & Knoll, 2007; Uchino, 2004) and there is a well-documented relationship between individual-level social support and mental health (Hyde et al., 2011; Moreira et al., 2003; Robinaugh et al., 2011; Rueger et al., 2016). Lower individual-level social support has been associated with increased symptoms of depression, anxiety, as well as posttraumatic stress (PTS) (Grills-Taquechel et al., 2011; Lakey & Cronin, 2008; Ozbay et al., 2007). Postdisaster research has demonstrated the protective role of individual-level social support on subsequent psychological health outcomes (Arnberg et al., 2012; Grills-Taquechel et al., 2011; Guilaran et al., 2018).

Network-level support is operationalized as social contact, including the amount of time spent with others as practical social resources (Schwarzer & Knoll, 2007; Uchino, 2004). Network-level social support has been shown to be protective against the onset of psychopathology in the presence of disaster-related stress (Norris & Kaniasty, 1996; K. Kaniasty, et al., 2020; K. Z. Kaniasty, 1990)

Neighborhood-level support, often conceptualized through neighborhood social cohesion, is an important contributor to mental health, and is often defined by perceptions of one's neighborhood as helpful, close, and trusting (Brown et al., 2009; Cutrona et al., 2006; Dawson et al., 2019; Erdem et al., 2016; Hurd et al., 2013). Neighborhood cohesion is a notable correlate of psychological health, and previous research has examined the relationships between reduced neighborhood cohesion and increases in various psychiatric symptoms. Furthermore, there is evidence to suggest that neighborhood cohesion contributes to recovery efforts in the aftermath of

large-scale disasters and protects against long-term psychopathology (Robinette et al., 2018; Dawson et al., 2019; Ellis et al., 2015; Heid et al., 2017; Kingsbury et al., 2020; Robinette et al., 2021).

1.1.1 | The current study

The current study sought to assess the relationships between three levels of social support and probable depression, anxiety, and PTS in a racially diverse, low-income student population living in New York City during COVID-19. The analyses were conducted on data collected in April 2020, when New York City was the epicenter of the global pandemic. We sought to understand how each level of social support was associated with increased or decreased likelihoods of probable depression, anxiety, and PTS in the context of pandemic-related stressors.

2 | METHOD

2.1 | Participants

The sample for this study was comprised of adults attending a public university in New York City (N = 2364). Our sample was predominantly low-income in comparison with city-wide data that documented 42.5% of New York City residents with household incomes greater than $75,000 (NYC data: number of households—by income range, 2017 estimates). Additionally, 40% of our sample met criteria for poverty designation (U.S. Census Bureau, 2020). Our sample's distribution of household incomes was as follows: 19.0% endorsed household incomes of $0–$19,999, 24.3% of $20,000–$44,999, 25.5% of $45,000–$74,999, and 31.1% of $75,000 and over. As for the gender of sample participants, 71.7% of participants were female, 27.0% were male, and 1.3% indicated another gender, including nonbinary or transgender. The ethnoracial group membership of the sample was as follows: 27.9% were non-Latinx White, 14.8% were non-Latinx Black, 31.3% were Latinx, 24.4% were non-Latinx Asian, and 1.5% were non-Latinx Indigenous (including American Indian, Alaskan Native, Native Hawaiian, or other Pacific Islander). All participants were at least 18 years old, and were enrolled in at least one course across six City University of New York (CUNY) campuses.

2.2 | Procedures

Data were collected via Qualtrics from April 8 to May 2, 2020 (Qualtrics Provo, https://www.qualtrics.com). This study was approved by the Institutional Review Board of CUNY. Emails providing the URL for the survey were sent out to students at six CUNY campuses. Participants were not financially compensated. Participant consent was given by opening and completing the survey.

3 | MEASURES

3.1 | Demographic characteristics

Participant ethnoracial group membership was operationalized using seven mutually exclusive categories. Gender was measured in three exclusive categories. Socioeconomic status (SES) was assessed via a computed index, with the following endorsements scored higher: a college education or above, household incomes greater than or equal to $65,000, household savings greater than or equal to $10,000, individual incomes of greater than or equal to

$35,000, individual savings greater than or equal to $5000, and having private health insurance. Scores were aggregated and subsequently split at the median to create high versus low binary categories. Sixty-four percent of our sample had low SES, and 35.4% were high SES. This index has been used in previous research examining pandemic-related psychological health outcomes (Rudenstine et al., 2021, 2022).

3.1.1 | COVID-19 stressors

We assessed 15 exposures to COVID-19-related stress: event cancellation due to COVID-19, seeing family in person less, seeing friends in person less, travel restrictions, death of a close relative or friend due to COVID-19, family or relationship problems, challenges finding childcare, feeling alone, not being able to get food due to shortages, not being able to get supplies due to shortages, losing a job, a member of the household losing a job, having financial problems, working remotely (away from the office), having difficulty paying rent, and being forced to leave campus. Scores greater than or equal to 5 were defined as high stress, and less than 5 as low stress. These stressors have been previously used to assess pandemic-induced stress (Ettman et al., 2020; Rudenstine et al., 2021, 2022).

3.1.2 | Psychiatric symptoms

Depressive symptoms were assessed via the patient health questionnaire-9 (PHQ-9), a nine-item clinically validated self-report scale with 88.0% specificity and sensitivity and a clinical cut-off score of 10, indicating probable clinical depression (Kroenke et al., 2001). Items are rated on a 4-point scale from 0 to 3 (0— not at all, 1— several days, 2— more than half the days, 3— nearly every day). Established test–retest reliability indicates correlations of 0.84 for the PHQ-9 (Kroenke et al., 2001). Our sample's Cronbach's α was 0.89, which is in accordance with published internal reliability estimates (Kroenke et al., 2001).

Anxiety symptoms were measured via the generalized anxiety disorder-7 (GAD-7), a 7-item validated self-report tool with a clinical cut-off score of 10, indicating probable clinical anxiety. The GAD-7 as 89.0% sensitivity and an established Cronbach's α of 0.92, which matched our sample Cronbach's α of 0.92 (Spitzer et al., 2006). Each item is rated on a 4-point scale, from 0 to 3 (0— not at all, 1— several days, 2— more than half the days, 3— nearly every day).

PTS was assessed via the primary care-post traumatic stress disorder screen (PC-PTSD), a four-item clinically validated self-report tool, with a sensitivity of 91%, that is rated on binary yes/no scale. A cut-off score of 3 indicated clinically probable PTS (Prins et al., 2004). The scale is comprised of items that measure for diagnostic and statistical manual (DSM) criteria of PTSD, specifically numbness, startled feelings, avoidance, and nightmares (Prins et al., 2004).

3.1.3 | Social support variables

Individual-level social support was measured via three items taken from the Medical Outcomes Study (MOS) Perceived Social Support scale, a validated self-report measure of perceptions of social support systems (Sherbourne & Stewart, 1991). Test–retest reliability of the scale indicates correlation scores ranging from 0.69 to 0.82 (Sherbourne & Stewart, 1991). The three items that were used assessed for participants' perceptions of social support via having: someone to help you if you were confined to a bed, someone to give you advice about a crisis, and someone to love and make you feel wanted. Each item was rated from 1 to 5, with 1 indicating "none of the time" to 5 indicating "all of the time." In accordance with previously published methodology, the total score was

subsequently stratified into high versus low at the median score of 11 (Knapstad et al., 2014; Pedersen et al., 2009). Cronbach's α for our sample was 0.67.

Network-level social support was measured via one self-report item assessing for social contact. This item prompted for quantity of contact with "members of your family or friends who do not live with you—including visits, phone calls, letters, text, e-mail, or social media." Response options that indicated low network-level social support included: "never," "no family/friends," "less than once a month," and "1–3 days a month." High network-level support included responses such as: "nearly every day," "3–4 days a week," and "1–2 days a week."

Neighborhood-level social support was assessed via the community social cohesion subscale of the Charlson Comorbidity Index (Charlson et al., 1987, 1994). This self-report scale is comprised of five items that assess for feelings about one's neighborhood and specifically if: "this is a close-knit or unified neighborhood," "people around here are willing to help their neighbors," "people in this neighborhood generally don't get along with each other," "people in this neighborhood do not share the same values," and "people in this neighborhood can be trusted." Items were rated from 1, strongly disagree, to 4, strongly agree. Due to the inverse nature of the items for "people in this neighborhood generally don't get along with each other" and for "people in this neighborhood do not share the same values," responses to these items reverse coded. Total response scores yielded a Cronbach's α of 0.79, and were split at the median score of 13 to indicate high versus low neighborhood-level social support, in accordance with past research that used a median cut-off for stratification (Quinn et al., 2019; Speer et al., 2001).

3.2 | Data analysis

First, descriptive analyses were conducted to ascertain demographic characteristics of the sample population. Second, X^2 analyses were performed to assess relationships between low and high stressors, low and high social support variables, and probable diagnoses. Third, three separate multiple logistic regressions were computed to examine odds of probable diagnoses for high levels of stressors-, and low levels of individual-, network-, and neighborhood-level social support. Each logistic regression controlled for the other two probable diagnoses to assess distinct diagnostic outcomes, and also controlled for socio-demographics. All analyses were performed using SPSS (Version 27.0; International Business Machines Corporation [IBM, 2020]). We used complete case analysis for the logistic regressions. A correlation matrix was assessed and confirmed the absence of multicollinearity for all estimates included in the model.

4 | RESULTS

Table 1 demonstrates demographic characteristics and prevalence of probable diagnosis of depression, anxiety, and PTS, across each variable and demographic, and displays p values for computed X^2 analyses. Overall, roughly 50% of our sample met the clinical cutoff score for probable depression, roughly 60% for probable anxiety, and roughly 66% for probable PTS. Computed X^2 analyses yielded significant relationships between low versus high stressor scores and probable depression, $X^2(1) = 86.55$, $p < 0.001$, anxiety, $X^2(1) = 71.30$, $p < 0.001$, and PTS, $X^2(1) = 51.23$, $p < 0.001$. Similarly, X^2 yielded significant relationships between low versus high individual-level social support and probable depression, $X^2(1) = 68.86$, $p < 0.001$, anxiety, $X^2(1) = 35.63$, $p < 0.001$, and PTS, $X^2(1) = 4.81$, $p < 0.05$. X^2 demonstrated significant relationships between low versus high network-level social support and probable depression, $X^2(1) = 17.16$, $p < 0.001$, and probable anxiety, $X^2(1) = 5.91$, $p < 0.05$, but not probable PTS. Lastly, X^2 yielded significant relationships between low versus high neighborhood-level social support and endorsement of probable depression, $X^2(1) = 43.02$, $p < 0.001$, probable anxiety, $X^2(1) = 26.19$, $p < 0.001$, and probable PTS, $X^2(1) = 27.44$, $p < 0.001$.

TABLE 1 Demographic characteristics and prevalence of probable depression, anxiety, and posttraumatic stress (PTS)

Variable	N (%)	Probable depression			Probable anxiety				PTS			
		With depression (%)	Without depression (%)	p value	N (%)	With anxiety (%)	Without anxiety (%)	p value	N (%)	With PTS (%)	Without PTS (%)	p value
Total	2364	1187 (50.2)	1177 (49.8)		2362	1411 (59.7)	951 (40.3)		2362	1568 (66.4)	794 (33.6)	
Age				<0.001				<0.001				0.053
18–24	1468 (62.8)	814 (70.4)	642 (55.2)			620 (65.7)	834 (60.7)			480 (61.4)	974 (63.4)	
25–34	559 (23.1)	247 (21.3)	310 (26.7)			231 (25.4)	326 (23.7)			211 (27.0)	346 (22.5)	
35–44	176 (7.5)	58 (5.0)	116 (10.0)			61 (6.5)	113 (8.2)			59 (7.5)	115 (7.5)	
45–54	87 (3.7)	25 (2.2)	62 (5.3)			20 (2.1)	67 (4.9)			22 (2.8)	65 (4.2)	
55–64	37 (1.6)	13 (1.1)	24 (2.1)			10 (1.1)	27 (2.0)			9 (1.2)	28 (1.8)	
65 or older	9 (0.4)	0 (0.0)	9 (0.8)			1 (0.1)	8 (0.6)			1 (0.1)	8 (0.5)	
Ethnoracial group membership				0.035				0.034				0.005
Non-Latinx White	570 (27.9)	264 (26.4)	303 (29.4)			243 (29.3)	324 (27.0)			178 (25.8)	389 (29.0)	
Non-Latinx Black	303 (14.8)	130 (13.0)	172 (16.7)			112 (13.5)	190 (15.8)			96 (13.9)	206 (15.4)	
Non-Latinx Asian	498 (24.4)	256 (25.6)	238 (23.1)			182 (22.0)	311 (25.9)			148 (21.5)	345 (25.7)	
Non-Latinx Indigenous	31 (1.5)	18 (1.8)	13 (1.3)			18 (2.2)	13 (1.1)			13 (1.9)	18 (1.4)	
Latinx	640 (31.3)	333 (33.3)	305 (29.6)			274 (33.1)	363 (30.2)			254 (36.9)	383 (28.6)	
Gender				<0.001				<0.001				0.002
Female	1685 (71.7)	862 (74.1)	819 (69.9)			717 (75.9)	964 (69.5)			598 (75.9)	1083 (70.1)	
Male	634 (27.0)	277 (23.8)	348 (29.7)			208 (22.0)	415 (29.9)			177 (22.5)	446 (28.9)	
Other	30 (1.3)	24 (2.1)	5 (0.4)			20 (2.1)	8 (0.6)			13 (1.6)	15 (1.0)	

TABLE 1 (Continued)

Variable	N (%)	Probable depression				Probable anxiety				PTS		
		With depression (%)	Without depression (%)	p value	N (%)	With anxiety (%)	Without anxiety (%)	p value	N (%)	With PTS (%)	Without PTS (%)	p value
Socioeconomic status				<0.001				0.003				0.166
Low	1232 (64.6)	693 (70.9)	537 (57.9)			554 (68.3)	676 (61.8)			449 (66.6)	781 (63.4)	
High	676 (35.4)	285 (29.1)	390 (42.1)			257 (31.7)	418 (38.2)			225 (33.4)	450 (36.6)	
Stressors				<0.001				<0.001				<0.001
Low	501 (17.2)	109 (9.3)	278 (23.4)			81 (8.5)	305 (21.6)			69 (8.7)	317 (20.2)	
High	2417 (82.6)	1068 (90.7)	909 (76.6)			870 (91.5)	1106 (78.4)			725 (91.3)	1251 (79.8)	
Individual-level social support				<0.001				<0.001				0.028
Low	1072 (42.8)	583 (51.0)	386 (33.9)			461 (50.0)	508 (37.4)			350 (45.7)	619 (40.9)	
High	1433 (57.2)	560 (49.0)	751 (66.1)			461 (50.0)	850 (62.6)			416 (54.3)	895 (59.1)	
Network-level social support				<0.001				0.015				0.925
Low	2279 (89.1)	1002 (86.7)	1251 (90.6)			819 (87.4)	1068 (92.0)			699 (89.4)	1371 (89.3)	
High	279 (10.9)	154 (13.3)	130 (9.4)			118 (12.6)	93 (8.0)			83 (10.6)	165 (10.7)	
Neighborhood-level social support				<0.001				<0.001				<0.001
Low	1107 (42.3)	574 (48.8)	420 (35.4)			461 (48.5)	534 (37.9)			394 (49.6)	601 (38.4)	
High	1510 (57.7)	603 (51.2)	765 (64.6)			490 (51.5)	876 (62.1)			794 (50.4)	966 (61.6)	

Note: Data collected in April 2020 among a diverse NYC university sample. Missing values: probable depression (n = 561), probable anxiety (n = 563), probable PTS (n = 563).

Abbreviation: PTS, posttraumatic stress.

TABLE 2 Odds of probable diagnostic endorsement by stressors and multilevel social support variables

	Odds ratio		
Variable	**Probable anxiety** OR (95% CI)	**Probable depression** OR (95% CI)	**Probable PTS** OR (95% CI)
High stressors	1.9[a] (1.3–2.9)	2.1[b] (1.4–3.1)	1.5* (1.1–2.2)
Low individual-level social support	1.4* (1.1–1.8)	1.5[a] (1.2–2.0)	0.9 (0.7–1.2)
Low network-level social support	0.8 (0.5–1.2)	0.8 (0.5–1.2)	1.4 (0.9–2.1)
Low neighborhood-level social support	1.1 (0.8–1.4)	1.4* (1.1–1.8)	1.5[b] (1.2–1.9)

Note: Reference groups were low levels of stressors and high levels of all social support variables.

Abbreviations: CI, confidence interval; PTS, posttraumatic stress.

[a]$p < 0.01$.

[b]$p < 0.001$.

*$p < 0.05$.

Individuals who endorsed a high quantity of stressors, as compared to low, had higher odds of probable depression, anxiety, and PTS (Table 2). Individuals who endorsed low individual-level social support had significantly higher odds of probable depression and anxiety endorsement as compared to individuals who endorsed high individual-level social support, however, odds of endorsing probable PTS were not significant. Individuals who endorsed low neighborhood-level social support had higher odds of probable depression and PTS, as compared to those who endorsed high neighborhood-level social support.

5 | DISCUSSION

We documented four primary observations. First, COVID-19-related stressors were important determinants of poor mental health. This is in accordance with previous literature that has documented the relationship between stressors and psychiatric symptomatology during large-scale disasters, as well as early data that have underscored the role of stressors on mental health during COVID-19 (Ettman et al., 2020; Lock et al., 2012). Second, individual-level social support was significantly related to depression and anxiety symptom endorsement, but not to PTS symptom endorsement. Third, network-level social support was not significantly associated with any psychiatric symptom cluster in the context of COVID-19. Fourth, neighborhood-level social support was significantly related to the endorsement of both depression and PTS diagnostic symptom types.

These findings highlight the importance of individual- and community-level social supports in the context of a large-scale chronic stressor (Bergstrand & Mayer, 2020; Guilaran et al., 2018). The reduced role of network-level social support in our model can be understood in light of previous research on the importance of quality of relationships versus quantity of social contact in mental health. Both individual and neighborhood-level social support refer to subjective perceptions of surrounding support systems (Brown et al., 2009; Uchino, 2004). Recent analyses have demonstrated the greater import of perceived support, as compared to actual support, in the aftermath of a potentially traumatic event, with greater quantities of social contact providing reduced support when not *perceived* to be qualitatively supportive (Shang et al., 2020). An individual's perception of support from a social contact or a neighborhood community holds greater importance than the number of social contacts one has. This further highlights the significance of intrapsychic processes, such as attachment systems and perceptions of others, on psychological health (Moreira et al., 2003; Rudenstine, 2013). Anxiety and depression are notably correlated with early attachment experiences that impact intrapsychic processes (Manning et al., 2017; Nielsen et al., 2017; Nolte et al., 2011). Such findings are in accordance with previous research on the role of stress and anxiety in the

context of early attachment experiences in the subsequent onset of anxiety and depression symptoms (Lakey & Orehek, 2011; Rueger et al., 2016; Vogel & Wei, 2005). Additionally, our findings are consistent with previous literature documenting the importance of neighborhood cohesion on mental health in disaster contexts, highlighting the role that community plays in providing meaning during crises (Bergstrand & Mayer, 2020; Heid et al., 2017).

The COVID-19 pandemic greatly limited urban travel and mobility (McMahon, 2021). During the initial April peak in viral transmissions in New York City, and the consequent shutdown of businesses, most residents were strictly confined to their respective neighborhoods (Engle et al., 2020; Yang et al., 2021). School and workplace closures further limited interneighborhood travel (Yang et al., 2021). Such changes may have increased the import of neighborhood-level social support on mental health. In the context of such limited access to friends and family in other locations, perceptions of support and trust in local neighborhood communities could have served as a key protective factor for psychological health during a pandemic peak.

The present findings for neighborhood-level support and PTS can be understood within the context of the distinct pathology of PTS symptoms and the context within which the present population was living. PTS often involves fear regarding one's safety (Jovanovic et al., 2012). Given the nature of the COVID-19 pandemic, with populations restricted to, and quarantined within, their neighborhoods, neighborhood-level social support perhaps provided a sense of surrounding security and protected against the onset of PTS to a greater extent than individual-level social support, as perceptions of individual support in other neighborhoods were inaccessible during this time period (Chen et al., 2021). Given the COVID-19 context of our findings, and the specific restrictions involved, such findings may not be pertinent during other population-level crises. Further study is required to explore generalizability of these findings.

A few limitations of the current study are important to note. Our data were collected at one time point. As such causal relations between stressors, social support, and diagnostic symptom endorsement could not be assessed and therefore we could not determine if participants' psychiatric symptoms were causing endorsements of low social support. Additionally, diagnoses can only be made by clinicians via clinical interviews, and therefore our results should be seen as results around probable diagnoses rather than clinical diagnoses. These data were collected during the pandemic peak of April 2020 in New York City; this suggests that these findings may not be generalizable to other time periods of the ongoing and ever-changing pandemic, or to other population-level crises. All data were collected from urban students; therefore, findings may not be relevant to broader urban or nonurban populations, and our use of purposive sampling may also limit the generalizability of our results.

Despite these limitations, our findings highlight the importance of individual and neighborhood level social support on mental health outcomes during COVID-19. These factors have also been found to protect against experiences of loneliness, which notably contribute to the development of psychopathology (Matthews et al., 2019; Mushtaq et al., 2014; Stephens et al., 2011). Policies that aim to improve mental health in the context of our current crisis should target both individual psychological health via interventions such as therapy, as well as neighborhood cohesion through increasing community spaces, fostering support among neighbors, and limiting practices that threaten community cohesion, such as gentrification (Bernstein & Isaac, 2021; Jennings & Bamkole, 2019; Tran et al., 2020). Ensuring greater modes of individual and neighborhood supports are necessary to aid recovery in the context of COVID-19 and to prevent future inequities in psychological health.

DATA AVAILABILITY STATEMENT

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