Published in final edited form as:
J Prev Interv Community. 2009 ; 37(2): 143–154. doi:10.1080/10852350902735742.

Investigating the Roles of Neighborhood Environments and Housing-based Social Support in the Relocation of Persons Made Homeless by Hurricane Katrina

Bret Kloos, **Kate Flory**, **Benjamin L. Hankin**, **Catherine A. Cheely**, and **Michelle Segal**
University of South Carolina

Abstract

This study examined whether social support tied to relocation efforts and neighborhood social climate may mediate the effects of stressful life events on mental health outcomes following Hurricane Katrina. Participants were 108 adult persons made homeless by Hurricane Katrina and evacuated to Columbia, SC. Civic leaders developed an intervention model that emphasized (a) a one-stop point of entry, (b) living in hotels and apartments rather than shelters, and (c) matching hotels with volunteer "hosts" to assist in relocation efforts. Results revealed that perceived neighborhood factors and satisfaction with host relationship were related to several mental health outcomes. Neighborhood social climate partially mediated several mental health outcomes. Implications of this intervention model and the utility of social ecological perspectives on homelessness interventions are discussed.

Keywords

Hurricane Katrina; Homelessness; Neighborhood; Social Ecology; Mental Health

On August 29, 2005, Hurricane Katrina struck the Gulf coast of the United States. On record as the one of the most deadly and costly storms to ever hit the U.S., Hurricane Katrina has been blamed for thousands of deaths, billions of dollars in damage, and the largest displacement of persons in contemporary U.S. history. An estimated 1.2 million persons from Louisiana, Mississippi, and Alabama were made homeless (Institute for Southern Studies, 2006). Over the weeks following the storm, hundreds of thousands of persons were relocated to more than 700 communities around the United States (Institute for Southern Studies, 2006). As with almost every aspect of responses to the storm, these communities were overwhelmed and unprepared for providing shelter to so many evacuees. In most cases, the pressing need and communities' willingness to help did not allow for significant planning and deliberation about the models to be used. The purpose of this report is to examine whether components of one particular strategy helped to ameliorate stress associated with the aftermath of the storm.

Overview of SC Cares

Although not particularly close in proximity to the U.S. Gulf Coast or a very large community, Columbia, South Carolina (SC) received more than 2,000 evacuees. These individuals were some of the last to leave New Orleans; most spent days in shelters before evacuation, left their home city involuntarily, and had no prior connection to SC. In Columbia, city, civic, and university leaders issued broad calls for persons who might assist in addressing the needs of

Please address all correspondence to Bret Kloos, University of South Carolina, Department of Psychology, Barnwell College, Columbia, SC 29208; Phone: 803-777-2704; Email: E-mail: kloos@sc.edu.

evacuees arriving in our city. It was particularly noteworthy that these leaders wanted to make temporary housing available from the time of arrival. Given the traumas experienced after Katrina, they wanted to provide a sense of security and personal space that is not typically available in shelter settings. Without much empirical information, they quickly developed a model intended to ameliorate some of the stress associated with the displacement and homelessness.

Upon arrival in Columbia, evacuees were brought to a central location to address their immediate health concerns and basic needs. Collaboration between the local United Way, the University of South Carolina (USC), and the City of Columbia established a one-stop center on the USC campus and created a model for how this particular community would assist persons in their relocation. At the center, people were able to fill medications, obtain personal supplies, use crisis counseling, and make arrangements for housing. Organizers of this effort emphasized three key features to their model: a) the one-stop center as a point of entry, b) housing all evacuees in hotels or apartments rather than shelters, and c) pairing each hotel with a local host to shepherd evacuees through the relocation process. These leaders named their model and undertaking “SC Cares.”

Initially, most of the Katrina survivors living in Columbia were housed in area hotels. A diverse network of religious organizations and civic-minded businesses agreed to become hosts for one to three months. With facilitation from the United Way, each host coordinated the delivery of meals by volunteers. Furthermore, a local host was designated to coordinate addressing resource needs for individuals that could not be addressed in the initial screening at the one-stop center (e.g., obtain furniture, replace clothing, complete paper work for assistance). Based upon our attendance at a few weekly host coordination meetings, it was clear that some of the hosts and evacuees had developed significant relationships beyond the initial call to provide basic necessities. For example, one group of evacuees had a barbeque cook-out with food purchased with their own money to thank their host and the volunteers associated with that organization.

Through reports of local hosts and our own contacts as volunteers, we noted a wide range in reported host relationships. Some hosts emphasized the provision of food and resources. Some expanded their roles to be community gatekeepers for residents. Some spent many hours each day on site while others emphasized logistical work but less personal interaction. Upon our visits, we observed that the social climates at hotels varied substantially (e.g., relationships among neighbors, patterns of personal interaction, reception by the surrounding neighborhood, or lack of neighborhood). At most housing developments, neighbors did not know each other prior to having to leave New Orleans. In a few cases, evacuees formed their own community councils to advocate for needs and distribute donated resources. These observations led us to wonder how two critical components of the SC Cares model, relationships with relocation hosts and the social climate of the neighborhoods, may be associated with the well-being of resident evacuees.

A few published studies suggest that examining social ecological components of homeless interventions and individuals’ situations, such as relationships and neighborhood climates, may help understand risk and protective factors (Perilla, Norris, & Lavizzo, 2002). Being homeless and displaced puts persons at greater risk for emotional problems (e.g., Najarian, Goenjian, Pelcovitz, Mandel, & Najarian, 2001). Specifically, isolation caused by homelessness and other stressors may lead to an increase in mental health problems (Shinn, 1992; Toohey, Shinn, & Weitzman, 2004), while being able to access social support after disasters may help ameliorate stress (Kaniasty & Norris, 1995). Homeless interventions may function to help individuals by increasing social support and improving neighborhood climate. However, the empirical literature investigating the importance of social ecological components of interventions for

persons who are homeless is relatively scant. Thus, relocation efforts of SC Cares created an opportunity for examining whether these domains of neighborhood and a supportive relationship tied to the relocation efforts may be associated with mental health outcomes. We also saw this as an opportunity to provide information to leaders of SC Cares about how components of their intervention may have helped evacuees.

Research Questions

The overarching question guiding this inquiry is whether aspects of the neighborhood and host relationship are associated with mental health outcomes. Specifically, it is hypothesized that (a) positive relationships with a local relocation host and (b) a perceived supportive neighborhood social climate will mediate the relationships between evacuees' experience of stressors and indices of their affect and mental health (i.e., psychiatric distress, depression, anxiety, PTSD symptoms, and problem drinking).

Method

Participants

Research participants were 108 adult survivors of Hurricane Katrina, interviewed between October 31, 2005 and April 24, 2006. All participants were interviewed in Columbia, SC, where they had been relocated following the Hurricane, most involuntarily. All of these persons had resided in New Orleans or along the Gulf Coast of Mississippi and Louisiana prior to the Hurricane (e.g., Slidell, LA). Participants were recruited at their hotels initially and later from housing lists obtained from various public service agencies.

Of the 108 research participants, the majority were male (n = 69, or 64%). With regards to race, 87 identified themselves as African American (81%), 14 as White, three as Native American, and three as "Other". Two participants indicated that they considered themselves to be Hispanic or Latino. The age range of participants was 21 to 78 years, with an average age of 46.9 years (SD = 10.1). Participants' highest level of educational attainment varied, ranging from 8th grade or less to an advanced degree. Specifically, 37% of participants reported not having a high school degree or the equivalent, 40% reported having graduated from high school or obtained their GED, 21% reported attending vocational, business, or trade school, or at least some college, and the remaining 2% reported completing a 4-year college degree, Master's degree, or an equivalent advanced degree. In terms of marital status, 28% of participants indicated that they were currently married or living with someone in a marital-like relationship, 32% were separated or divorced, and 9% were widowed. The remaining 31% indicated that they had never been married or lived with someone in a marital-like relationship. In terms of children, 37% of participants reported having at least one child under 18, although only 18% reported having their children live with them.

Participants were asked about income received from various sources during the 30 days prior to being interviewed. The average FEMA related income reported was $206, with a standard deviation of $647.10. It is important to note that 74% of the sample reported no income from this source 30 days prior to the interview. The average reported income from all possible sources in the previous 30 days was $552, with a standard deviation of $862.47. Participants' reported aggregate 30-day income ranged from $0 for eight persons to $3,800 for three persons.

Procedure

Participants were interviewed by trained graduate and undergraduate research assistants either at their place of residence, in the lobby of their hotel, or in a community location (e.g., churches). Interviews lasted approximately one hour and consisted of a packet of self-report questionnaires and a semi-structured qualitative interview, which was audio-recorded for later

coding. Questionnaire items were read aloud to participants and interviewers recorded their answers, either directly on the written questionnaires or using a laptop computer programmed for data collection. Participants were reimbursed $25 for completing the interview. All study procedures were approved by the University of South Carolina Institutional Review Board.

Measures

Questionnaire data assessing the following constructs were utilized in the present study:

Housing Environment—The Housing Environment Survey (HES) is a structured interview measuring three domains of housing environments – physical, social, and interpersonal relationships tied to housing (Kloos, Frisman, Shah, Rodis, & Lin, 2007). One of the seven HES scales were used in this study – the HES-Neighborhood Social Climate scale (HES-NSC). The scale used a 5-point Likert response set, ranging from "Strongly Agree" to "Strongly Disagree." The internal consistency in this sample for the seven-item Neighborhood Social Climate scale was .86. The scale has been shown to predict psychiatric distress, recovery, and residential satisfaction in a study of persons with mental illness living in their own apartments (Wright & Kloos, 2007).

Social Support—A measure was used to assess perceptions of social support. The *Relocation Host (RH)* scale was adapted from HES scale items for this study. It was designed to understand the programmatic relocation efforts intended to match persons and sites with community-based resources. Participants responded to eight statements about their relationship with their local "hosts" and associated assistance by choosing how much they agreed or disagreed to a series of statements along a five-point Likert scale ranging from "Strongly Agree" to "Strongly Disagree" (e.g., *"I can count on my host for help when I need it"*). The internal consistency of the RH in this sample was .88. The RH responses ranged from 9 to 40 (M = 30.09, SD = 6.24).

Negative Life Events—The Life Events Inventory (LEI; Cochrane & Robertson, 1973) was used to assess major stressors experienced in the past three months. There are 51 events (39 for those who had never been married), such as change in work hours to death of an immediate family member. The total number of negative events experienced was used.

Behavioral health outcome measures—Four established instruments were used to assess functioning outcomes – the Brief Symptom Inventory, the Impact Event Scale-Revised, the PANAS, and the AUDIT.

The Brief Symptom Inventory (BSI; Derogatis, 1993) was used to assess general mental health outcomes. It contains 53 questions about psychiatric distress with a total scale internal consistency of 0.96 (Derogatis, 1993). The BSI has symptom specific subscales and a Global Severity Index (GSI) that is an average of ratings for how distressing different situations or symptoms are for individuals in the past 30 days. For this study, we use the depression and anxiety subscales. The BSI subscales have been shown to be reliable and valid measures based on a national normed database (Derogatis, 1993).

The Impact of Event Scale-Revised (IES-R; Weiss & Marmar, 1997) was used to measure PTSD symptoms attributable to Hurricane Katrina. The 22-item scale has been documented as a reliable (α = .94) and valid measure of PTSD symptoms. A cut-score of 33 or higher has been shown to be a sensitive and specific cutoff threshold for diagnostic, clinically significant levels of PTSD (Creamer, Bell, & Failla, 2003).

The 20-item Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) was used to assess participants' general emotional distress (i.e., negative affect) and well-being (i.e., positive affect). Individuals rated their degree of various feelings and emotions

(e.g., interested, excited, irritable, distressed) during the past week on a five point scale (1 = "not at all" to 5 = "extremely"). The PANAS is a reliable (α = .88) and valid measure of general positive and negative affect that has been used in many studies (Benotsch, Lutgendorf, Watson, Fick, & Lang, 2000).

The Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, De La Fuente, & Grant, 1993) is a 10-item scale that was used to evaluate current alcohol use and abuse with questions on alcohol consumption, drinking behavior, and alcohol-related problems. We examined total scores. It has been shown to be reliable and valid, and a cutoff score of 7 or higher, based on total scores, indicates hazardous or harmful drinking. The AUDIT has been shown to have strong psychometric properties (e.g., Dybek et al., 2006; Saunders et al., 1993) and is especially adept at detecting problem drinkers at the less severe end of the spectrum.

Procedures

We contacted these hosts, either directly by phone or through attending sponsor meetings at the United Way. Through these contacts, we arranged times to visit the hotels to distribute our recruitment materials. At the hotels, we typically made a brief presentation to evacuees (e.g., during mealtimes or sponsor-organized events) and then spent several hours in the hotel lobby providing information about our study, answering questions, listening to survivors' stories, and scheduling interview times. We also hired one of the Hurricane Katrina survivors to assist us with recruitment efforts. "Jackie" educated us about survivors' experiences in Columbia and offered suggestions for how we might improve our recruitment efforts. "Jackie" spent time at hotels and some of the apartment complexes that housed survivors.

Results

Relationships between the study variables are shown in Table 1. As expected, research participants reported experiencing stressful events after Katrina. The mean of stressors experienced in the previous three months as reported on the LEI was 7.1 (*SD* = 4.29). Participants reported a range of stressful events experienced in the previous three months, 1 to 28. As shown in Table 2, reports of experiencing these stressors predicted scores for depression and anxiety (BSI), reported symptoms of PTSD (IES-R), and negative affect (PANAS-NA). The stressors did not predict reports of positive affect (PANAS-PA) or reports of problematic use of alcohol (AUDIT).

Relationship with Relocation Host

Participants reported generally favorable experiences with their hosts. The mean sum for the RH scale was 30.1 (*SD* = 6.29) out of a possible total score of 40. There was a fairly large range, 9 to 40. A majority of participants, 77.2%, reported that their relationship with their host was important to them and 85.3% reported that they were satisfied with their relationship. However, participants indicated relatively little personal contact with hosts; 52.8% reported that they talked once a month or less. Surprisingly, the RH scale was not correlated with any of the mental health outcomes, thus regressions of mental health outcomes on RH were not conducted. However, ANOVA analyses of the individual item about satisfaction with the host relationship using a mean split dichotomous variable indicated that less satisfaction with hosts was related to higher reported PTSD, $F(1, 106) = 3.92$, $p = .05$, and more negative affect (PANAS-NA), $F(1,106) = 4.94$, $p < .03$). There was also a trend for difference in depression (BSI-dep) $F(1, 105) = 3.67$, $p = .07$). The RH was not correlated with the HES-Neighborhood Social Climate. The hypothesis of RH scale mediating mental health outcomes was not supported with these data. However, satisfaction with the relocation host relationship was related to selected mental health outcomes.

Neighborhood Social Climate

On the whole, participants reported generally favorable perceptions of their neighborhoods. The mean sum for the HES-NSC scale was 42.3 (*SD* = 7.55) with the highest possible total score of 55 representing the most positive climate. NSC scores ranged from 28 to 55. As expected, the HES-NSC was significantly correlated with all of the mental health outcome scales except with the PANAS-Positive Affect. The correlations ranged from −.25 for the AUDIT to −.36 for the IES-R. Thus regression analyses were conducted as planned.

Finally, we conducted mediational analyses, based on Baron and Kenny's (1986) criteria and logic to examine whether perceptions of neighborhood social climate (HES-NSC) would account for the impact of stressful life events observed in mental health outcomes. Regression analyses were used to test mediation for those mental health outcomes that were correlated with HES-NSC. As shown in Table 3, the HES-NSC accounts for modest reductions in the stressors' Beta weights for each mental health outcome. The table presents the Beta for stressors when modeled alone in the first results column. The second results column shows the reduced Beta for stressors and the third column shows the HES-NSC when both are included in the same model. The fourth column presents the R^2 for the models of stressors and HES-NSC predicting mental health outcomes. The final column presents the Sobel test statistics. As the Sobel test verified, the NSC scores mediated mental health outcomes but not for alcohol problems (i.e., AUDIT). The overall pattern of the reductions in the stressors' Beta weights, although small, indicated modest, partial mediation of mental health outcomes. The hypothesis predicting HES-NSC would mediate the relationship between life events stressors and mental health outcomes was supported modestly with these data.

Discussion

The data from this study provide modest support for the intervention model proposed by SC Cares. Perceptions of a supportive neighborhood climate partially mediated several mental health outcomes – self-reported depressive, anxiety, and PTSD symptoms, and negative affect. The consistent pattern of reduced Beta weights for life event stressors across outcomes suggests that neighborhood climates might have an important small ameliorative affect on the impact of life event stressors for mental health outcomes. From a public health perspective, any reduction in problematic outcomes is significant. Without a comparison group living in shelters, it is difficult to know the relative effectiveness of such an intervention. However, these data suggest that location in better neighborhoods may facilitate to better functioning. Furthermore, satisfaction with the relocation host accounted for lower PTSD mean scores and lower amounts of negative affect. Although this single item provides only a gross measure of host relationship, it does suggest that the nature of the relationship can affect outcomes about which intervention staff may be concerned.

These findings provide preliminary evidence that the social ecology of homelessness interventions can affect persons' functioning outcomes. This is an aspect of homeless intervention that has largely been overlooked in research literatures. Given the intensity of many persons' experiences after Hurricane Katrina, it is somewhat surprising that these relatively simple measures of supportive environments could be related to functioning outcomes (Bland, O'Leary, Farinaro, Jossa, & Trevisan, 1996). The promise of studying social ecological factors in homelessness interventions may be understated in this study when one considers how the potentially compounding traumas of the Hurricane, displacement, and witnessing multiple traumatic experiences in the aftermath of Katrina could limit persons' interest or ability to engage in new social settings (e.g., Caldera, Palma, Penayo, & Kullgren, 2001). The findings also suggest that careful programmatic studies of the social ecology of homelessness interventions may help justify programmatic models in terms of health benefits. Although Hurricane Katrina evacuees had special circumstances not faced by most persons

who are homeless, this SC Cares model's emphasis on pairing persons up with community members who can assist in transitions from homelessness may be helpful for many persons who are homeless. Similarly, attention to neighborhood conditions and housing first types of solutions may warrant more study and testing.

Interpretation of the results of this exploratory study must be carefully qualified. The lack of a comparison group makes definitive conclusions about the contributions of intervention difficult to draw. The findings provide enough evidence to warrant provisional use of these model components and justify further research. Secondly, the measurement of host relationships can be better developed. For this study a measure was adapted quickly. Including better estimates of the amount and nature of relocation host-evacuee contacts would assist in understanding the scope and intensity of the intervention. These aspects of the model implementation are unknown with these data. Third, the cross-sectional design cannot take into account other factors that may affect mental health outcomes. Ideally, a longitudinal design could both track outcomes over time, but also the interactions of evacuees with relocation hosts and neighbors that may impacts on outcomes. Fourth, as the Life Events Inventory data reported, research participants reported a range of stressful experiences, but this method cannot take into account differences in intensity of exposure to traumatic events that may be less responsive to effects of neighborhood settings or new supportive relationships.

In summary, it appears that one community's model for responding to homelessness resulting from the Diaspora caused by Katrina may help to facilitate recovery from traumatic experiences. Further study of similar models and the social ecology of interventions may be a promising avenue for future research and program development.

Acknowledgements

This research was funded by the National Science Foundation, grant #0554924 and a National Institute of Mental Health grant, MH65439.

References

Baron R, Kenney D. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. Journal of Personality and Social Psychology 1986;51(6):1173–1182. [PubMed: 3806354]

Benotsch EG, Lutgendorf SK, Watson D, Fick LJ, Lang EV. Rapid anxiety assessment in medical patients: Evidence for the validity of verbal anxiety ratings. Annals of Behavioral Medicine 2000;22:199–203. [PubMed: 11126464]

Bland SH, O'Leary ES, Farinaro E, Jossa F, Trevisan M. Long-term psychological effects of natural disasters. Psychosomatic Medicine 1996;58:18–24. [PubMed: 8677284]

Caldera T, Palma L, Penayo U, Kullgren G. Psychological impact of the hurricane Mitch in Nicaragua in a one-year perspective. Social Psychiatry and Psychiatric Epidemiology 2001;36:108–114. [PubMed: 11465781]

Cochrane R, Robertson A. The Life Events Inventory: A measure of the relative severity of psychosocial stressors. Journal of Psychosomatic Research 1973;17:135–139. [PubMed: 4741684]

Creamer M, Bell R, Failla S. Psychometric properties of the Impact of Event Scale-Revised. Behavior Research and Therapy 2003;41:1489–1496.

Derogatis, LR. Administration, scoring and procedures manual. Vol. 4. Minneapolis, MN: National Computer Systems; 1993. BSI Brief symptom inventory.

Dybek I, Bischof G, Grothues J, Reinhardt S, Meyer C, Hapke U, et al. The reliability and validity of the Alcohol Use Disorders Identification Test (AUDIT) in a German general practice population sample. Journal of Studies on Alcohol 2006;67:473–481. [PubMed: 16608159]

Institute for Southern Studies. One year after Katrina: The state of New Orleans and the Gulf Coast. 2006. http://www.reconstructionwatch.org/images/One_Year_After.pdf

Kaniasty K, Norris FH. In search of altruistic community: patterns of social support mobilization following Hurricane Hugo. American Journal of Community Psychology 1995;4(23):447–478. [PubMed: 8546107]

Kloos, B.; Frisman, L.; Shah, S.; Rodis, E.; Lin, H. The Housing Environment Scales. University of South Carolina; Columbia: 2007. Unpublished manuscript

Najarian LM, Goenjian AK, Pelcovitz D, Mandel F, Najarian B. The effect of relocation after a natural disaster. Journal of Traumatic Stress 2001;14(3):511–526. [PubMed: 11534882]

Perilla JL, Norris FH, Lavizzo EA. Ethnicity, culture, and disaster response: Identifying and explaining ethnic differences in PTSD six months after Hurricane Andrew. Journal of Social and Clinical Psychology 2002;1(21):20–45.

Saunders JB, Aasland OG, Babor TF, De La Fuente JR, Grant M. Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption II. Addiction 1993;88:791–804. [PubMed: 8329970]

Shinn M. Homelessness: What is a psychologist to do? American Journal of Community Psychology 1992;20:1–24. [PubMed: 1562000]

Toohey SM, Shinn M, Weitzman B. Social networks and homelessness among women heads of household. American Journal of Community Psychology 2004;33:7–20. [PubMed: 15055751]

Watson D, Clark LA, Tellegen A. Development and validation of brief measures of positive and negative affect: The PANAS scales. Journal of Personality and Social Psychology 1988;54:1063–1070. [PubMed: 3397865]

Weiss, D.; Marmar, C. The Impact of Event Scale-Revised. In: Wilson, J.; Keane, T., editors. Assessing psychological trauma and PTSD. New York: Guilford Press; 1997.

Wright PA, Kloos B. Housing Environment and Mental Health Outcomes: A Levels of Analysis Perspective. Journal of Environmental Psychology 2007;27:79–89. [PubMed: 19183703]

Table 1

Intercorrelations Between Study Variables

	1	2	3	4	5	6	7	8	9
1. NSC	1								
2. Host	.14	1							
3. LEI	−.26**	.07	1						
4. BSI-Dep	−.34**	.01	.46**	1					
5. BSI-Anx	−.32**	−.07	.31**	.78**	1				
6. IES-R	−.36**	.10	.24**	.62**	.64**	1			
7. PANAS-PA	.12	.06	.13	−.14	−.21*	−.09	1		
8. PANAS-NA	−.25**	.09	.35**	.67**	.79**	.63**	−.03	1	
9. AUDIT	−.25*	−.11	.14	.23*	.12	.13	−.09	.23**	1

Note. NSC = Neighborhood Social Climate; Host = Relationship with Relocation Host; LEI = Life Events Inventory; BSI-Dep = Brief Symptom Inventory – Depression subscale; BSI-Anx = Brief Symptom Inventory – Anxiety subscale; IES-R = Impact of Event Scale – Revised (PTSD); PANAS-PA = Positive and Negative Affect Schedule –Positive Affect subscale; PANAS-NA = Positive and Negative Affect Schedule –Negative Affect subscale; AUDIT = Alcohol Use Disorders Identification Test

* $p < .05$,

** $p < .01$

*** $p < .001$

J Prev Interv Community. Author manuscript; available in PMC 2009 April 16.

Table 2

Regression Analyses Evaluating Relationships Between Stressors and Mental Health

	R^2	*B*	*SE B*	β
BSI-Dep	.21	.40	.08	.46***
BSI-Anx	.10	.27	.08	.31**
IES-R	.06	.24	.09	.24*
PANAS-PA	.02	.13	.10	.13
PANAS-NA	.12	.35	.09	.35**
AUDIT	.02	.13	.11	.14

Note. BSI-Dep = Brief Symptom Inventory – Depression subscale; BSI-Anx = Brief Symptom Inventory – Anxiety subscale; IES-R = Impact of Event Scale – Revised (PTSD); PANAS-PA = Positive and Negative Affect Schedule – Positive Affect subscale; PANAS-NA = Positive and Negative Affect Schedule – Negative Affect subscale; AUDIT = Alcohol Use Disorders Identification Test; Results include Betas and R^2s presented from regression analyses conducted separately for each mental health outcome.

* $p < .05$,

** $p < .01$

*** $p < .001$

Table 3

Regression Analyses Evaluating Mediation of Stressors by Neighborhood Social Climate on Mental Health

	Stressors only	Stressors (w/NSC)	HES-NSC (w/stressors)	Total R^2	Sobel Test
BSI-Dep	.46***	.40***	−.23**	.26**	2.23*
BSI-Anx	.31***	.25**	−.25**	.16**	2.16*
IES-R	.24*	.16	−.32**	.15***	2.28*
PANAS-NA	.35***	.31***	−.17	.15***	1.92*
AUDIT	.14	.08	−.23	.07	1.73

Note. BSI-Dep = Brief Symptom Inventory – Depression subscale; BSI-Anx = Brief Symptom Inventory – Anxiety subscale; IES-R = Impact of Event Scale – Revised (PTSD); PANAS-NA = Positive and Negative Affect Schedule – Negative Affect subscale; AUDIT = Alcohol Use Disorders Identification Test; Results include Betas and R^2s presented from regression analyses conducted separately for each mental health outcome.

* p <.05,

** p <.01

*** p <.001