



The emotional cost of distance: Geographic social network dispersion and post-traumatic stress among survivors of Hurricane Katrina



Katherine Ann Morris ^{a, *}, Nicole M. Deterding ^b

^a Harvard University, Department of Sociology, William James Hall, 33 Kirkland Street, Cambridge, MA 02138, United States

^b University of Wisconsin-Madison, Institute for Research on Poverty, United States

ARTICLE INFO

Article history:

Received 5 January 2016

Received in revised form

16 July 2016

Accepted 25 July 2016

Available online 28 July 2016

Keywords:

Mental illness

Post-traumatic stress

Natural disaster

Social support

Egocentric social networks

Mixed methods

Network dispersion

ABSTRACT

Rationale: Social networks offer important emotional and instrumental support following natural disasters. However, displacement may geographically disperse network members, making it difficult to provide and receive support necessary for psychological recovery after trauma.

Objectives: We examine the association between distance to network members and post-traumatic stress using survey data, and identify potential mechanisms underlying this association using in-depth qualitative interviews.

Methods: We use longitudinal, mixed-methods data from the Resilience in Survivors of Katrina (RISK) Project to capture the long-term effects of Hurricane Katrina on low-income mothers from New Orleans. Baseline surveys occurred approximately one year before the storm and follow-up surveys and in-depth interviews were conducted five years later. We use a sequential explanatory analytic design. With logistic regression, we estimate the association of geographic network dispersion with the likelihood of post-traumatic stress. With linear regressions, we estimate the association of network dispersion with the three post-traumatic stress sub-scales. Using maximal variation sampling, we use qualitative interview data to elaborate identified statistical associations.

Results: We find network dispersion is positively associated with the likelihood of post-traumatic stress, controlling for individual-level socio-demographic characteristics, exposure to hurricane-related trauma, perceived social support, and New Orleans residency. We identify two social-psychological mechanisms present in qualitative data: respondents with distant network members report a lack of deep belonging and a lack of mattering as they are unable to fulfill obligations to important distant ties.

Conclusion: Results indicate the importance of physical proximity to emotionally-intimate network ties for long-term psychological recovery.

© 2016 Elsevier Ltd. All rights reserved.

1. Theoretical Framework

Hurricane Katrina caused massive destruction, loss of human life, and long-term housing displacement. Approximately 1.2 million individuals were displaced from the Gulf Coast region, and almost 80% of New Orleans evacuated before the storm (Fussell et al., 2014). By 2006, New Orleans recovered half its pre-Katrina population, reaching three-quarters by 2012 (Fussell and Lowe, 2014). Evacuation and relocation strategies available to Hurricane Katrina survivors negatively impacted social networks and traditional kinship care arrangements (Asad, 2014; McCarthy-Brown

and Waysdorf, 2009). Many residents were relocated with little choice of destination and often without their close friends or family, due to limited access to transportation, financial resources, and time to prepare (Eisenman et al., 2007). Households with the fewest resources were least likely to keep their families together during evacuation and relocation processes (Fussell, 2006), geographically dispersing their social networks (Hurlbert et al., 2006). In this paper, we examine the association between social network characteristics and post-traumatic stress disorder (PTSD) following Hurricane Katrina. We focus on network dispersion in particular, using in-depth interview data to suggest mechanisms by which dispersion affects psychological distress.

* Corresponding author.

E-mail address: kmorris@fas.harvard.edu (K.A. Morris).

1.1. Network disruption and function after natural disaster

Network disruption—whether following natural disaster (Galea et al., 2005), adverse social contexts such as war or political upheaval (Hall et al., 2014), or life events such as divorce (Milardo, 1987) or foster care placement (Perry, 2006)—is associated with increased psychological distress, including anxiety, depression, and PTSD. While primary stressors following disaster include witnessing destruction and death, secondary stressors are associated with long-term, indirect consequences like diminished financial resources and access to medical care. Weakened social support from network disruption is a key secondary stressor following disaster (Lock et al., 2012). Natural disasters disrupt networks through the experience of collective trauma and mass displacement. *Collective trauma* is the shared experience of a traumatic event, which can facilitate bonding and new relationships, but often hampers reciprocal exchange when individuals are unable to offer support given their own need (Kaniasty and Norris, 1993, 1995). *Mass displacement* disrupts networks by physically separating survivors from their communities and routine contacts (Hurlbert et al., 2006). Even those who return may find both the physical environment and demographic composition of the community changed (Groen and Polivka, 2010).

Social networks are crucial conduits of emotional and instrumental support that buffers against psychological distress in the short-term after disaster and aids psychological recovery in the long-term (Barnshaw and Trainor, 2006; Galea et al., 2005; Hurlbert et al., 2000; Reid and Reczek, 2011). Research demonstrates that perceived emotional social support is protective against psychological disorders (Adeola and Picou, 2014; Charuvastra and Cloitre, 2008; Paxson et al., 2012; Weems et al., 2007), while network disruption and loss of support is positively associated with risk of PTSD (Fredman et al., 2010; Hall et al., 2014; Hall et al., 2015). Geographic network dispersion is a key form of such network disruption linked to PTSD. Bland et al. (1997) find that earthquake survivors whose displacement increased distance from their social relationships were more likely to experience psychological distress. However, increased distance does not necessitate disruption or dissolution, especially given social media and other new digital communication technologies (Phan and Airoidi, 2015). The association of post-disaster PTSD with network dispersion in the Internet age remains an open question. We hypothesize that network dispersion is positively associated with PTSD after Hurricane Katrina. We further hypothesize that this association is moderated by New Orleans residency versus continued displacement.

1.2. Geographic network dispersion and social support

While social commentators suggest the Internet reduces the effect of distance on relationship quality, research demonstrates that digital communication only marginally affects how individuals maintain relationships (Mok et al., 2010). Even today, distance to ties may remain negatively associated with frequency and quality of social interactions. Proximity to network members “fosters frequent contact, densely knit connections, mutual awareness of problems, and easy delivery of aid” (Wellman and Wortley, 1990, p. 568), predicting emotional and instrumental social support (Hurlbert et al., 2000). Proximity also increases emotional intimacy between social ties due to more frequent interaction (Lawton et al., 1994).

This does not mean all distant social ties are weak or all proximate ties are intimate. Distant ties are often kin-based, representing “latent or sentimental relations” (Fischer, 1982, p. 169). Silverstein and Bengtson (1997, p. 442) find that intimate-but-distant social relationships are those “in which functional

exchange is absent, but where high levels of affinity may hold the potential for future exchange.” Were distant ties not satisfying, they might be discontinued, “since local associates ‘cost’ less and distant ones ‘cost’ more, people find their distant ones *more* rewarding, on the average, than their nearer ones” (Fischer, 1982, p. 172). It follows that distance to intimate ties reduces access to instrumental support during periods of stress and may even exacerbate psychological distress. We hypothesize the association between network dispersion and PTSD is moderated by perceived emotional support.

1.3. Mechanisms linking geographic network dispersion and mental health

We evaluate whether network dispersion is positively associated with psychological distress after Katrina and aim to understand the mechanisms of this association. In doing, we extend research on the so-called “stress-buffering-hypothesis,” which suggests social ties ameliorate the effects of stress exposure on health outcomes (Cohen and Wills, 1985). Researchers posit social networks affect physical and mental health through four categories of mechanisms: person-to-person exposure to infection or toxins; access to material resources or practical assistance; social influence and control; and emotional social support (Berkman et al., 2000). While these mechanisms are often described, they are rarely identified empirically (Thoits, 2011; Uchino et al., 1996). By combining quantitative data on networks with qualitative interview data, we identify two social mechanisms by which network dispersion affects psychological health in the wake of disaster: belonging and mattering.

Belonging occurs through shared activities and discussions of important matters, producing feelings of acceptance and inclusion (Cutrona, 1990) and protecting against loneliness (Hawkey and Cacioppo, 2010). It is also linked to emotional social support (Lin et al., 1985; Thoits, 2011). Lack of belonging is a key symptom of what Erikson (1978, pp. 131, 187) describes as “disaster-related collective trauma.” Expanding from the definition of collective trauma cited above, Erikson highlights “a gradual realization that the community no longer exists as an effective source of support and that an important part of the self has disappeared” (pp. 154). His interviewees relate loss of community and deep belonging to network disruption, saying: “You don’t have any friends around, people around, like we had before” and “I don’t know where any of my friends are now” (pp. 196–197). We examine whether this mechanism persists across distance even in the Internet age.

Mattering refers to the positive feeling individuals get from fulfilling role expectations when they are relied upon for assistance, indicating they are important to others (France and Finney, 2009). Mattering provides a sense of purpose, meaning in life, and self-worth (Thoits, 2011: 148), which is protective of PTSD following natural disaster (Feder et al., 2013). However, the strain caused by role expectations and obligations has also been referred to as the “dark side” of social networks (Kawachi and Berkman, 2001, p. 463). We examine whether the inability fulfill obligations due to distance results in role strain and a lack of mattering (Rook, 1990), producing psychological distress.

2. Data and methods

We draw data from the Resilience in Survivors of Katrina (RISK) Project, a mixed-methods, longitudinal study examining the long-term effects of natural disaster on low-income parents living in New Orleans before the storm. The study began in 2003 as Opening Doors Louisiana, a randomized-controlled trial of a community college scholarship intervention. When Hurricanes Katrina and Rita halted the Opening Doors evaluation, baseline data were

Download English Version:

<https://daneshyari.com/en/article/7329468>

Download Persian Version:

<https://daneshyari.com/article/7329468>

[Daneshyari.com](https://daneshyari.com)