Building Community Resilience by Connecting Communities and Institutions



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Introduction

Climate-related extreme weather events are expected to increase in frequency and intensity as the global temperature rises above pre-industrial levels (Steffen et al. 2011). Cities are particularly threatened because of their high population density and in many cases, their location in flood and disaster-prone areas (Hoffman 2014). Resilience building is driven by driven by cultural and contextual factors (Spaans and Waterhout 2017a), but also by institutional systems and by the communities who live there. Traditional responses to natural disasters often involve large, coordinated and 'top-down' initiatives by emergency management professionals (B. Pfefferbaum, Van Horn, and Pfefferbaum 2017a) while communities coordinate their own response by implementing 'bottom-up' initiatives, leveraging local capacities to address their short- and long-term needs (Morello-Frosch et al. 2011a). This research paper explores the ways that institutions and communities can form collaborative, constructive partnerships to better build community resilience to environmental shocks and stressors.

Background Understandings

Community Resilience: Today, community resilience is often defined as "a process linking a set of networked adaptive capacities to a positive trajectory of functioning and adaptation in constituent populations after a disturbance" (Norris et al. 2008a). This definition characterizes resilience by the quality of adaptability rather than the quality of elasticity or stability. It recognizes the ability of a community to bounce forward on a positive trajectory as opposed to simply recovering and 'bouncing back' to an equilibrium state (Shaw 2012). And it frames communities as 'agents of change' rather than 'places of change'.

Linking Social Capital: Linking social capital describes connections between community members and institutions in power (Aldrich 2017). In other words, linking social capital is the 'adaptive capacity' that builds community resilience by connecting communities and institutions.

Methods

Literature Search: Systematic 'broad' and 'target' literature searches were completed from direction of the Healthy & Resilient Cities Project. Results were sorted into key research questions based on title and abstract. This paper addressed one of six key questions. The search parameters and results are shown below.

Thematic Sorting: Papers were read in order of recency and sorted based on themes that emerged across them. 47 papers were analyzed for this review.

Broad Search

	Broad Search*	
Community Resilience	AND	Group #1-3
Group #1	Group #2	Group #3
Aboriginal	Emergence	Case Study
Indigenous	Engagement	Review
African American	Transformative	Model
Marginalized	Triple Loop Learning	Framework
Environmental Justice	Quantitative	Conceptual
Relationship Building	Metric AND Urban	
Huricane Katrina	Institution	
Hurricane Sandy	Disaster Management	
	Disaster Preparedness	
	Group #4	
Disaster Preparedness	AND	Community Engagement
	Databases	
EBSCO	PubMed	Scopus
ProQuest	OVID	Web of Science
	*Inclusion/Exclusion Criteria	
Only English language, peer-review jour		
Results outside of The Americas, Europe		t considered
Search for phrases was limited to title an		
Results published before the year 2010 v	•	•
Group #3 – Search for phrases was limit	ed to title only. Results published b	efore the year 2000 were not consider

Broad Literature Search	
> Total results	27,684
> Flagged articles	754
> After removal of duplicates	444
> After reading & thematic sorting	285
> Total articles sorted into research question	99

Targeted Search

	Targeted Search*		
Community Resilience			
Community Participation	AND	Group #1-6	
Community Response	AND		
Community Engagement			
Group #1	Group #2	Group #3	
Disaster	Terrorist Attack	Social Capital	
Earthquake	Blackout	Social Network	
Hurricane	Power Out	Social Cohesion	
Monsoon	Terrorist Attack	Community Capital	
Superstorm	Shooting	Asset Based	
Tsunami	Derailment	Place Based	
Flood	Spill		
Fire			
Drought			
Group #4	Group #5	Group #6	
Community Based Organization	Local Community	Community Institutional Relation	
Community Backbone Organization	Local Government	Cross Scale Linkages	
Community Coalition	Local Innovation	Scale Crossing Brokers	
Connected Community	Local Institution		
	Databases		
	Scopus or Summon (TBD)		
*	Inclusion/Exclusion Criteria		
Only English language, peer-review journal a	rticles were considered		
Results outside of The Americas, Europe, So	uth or Southeast Asia were not	considered	

Targeted Literature Search

> Total results 12,279

> Flagged articles 358

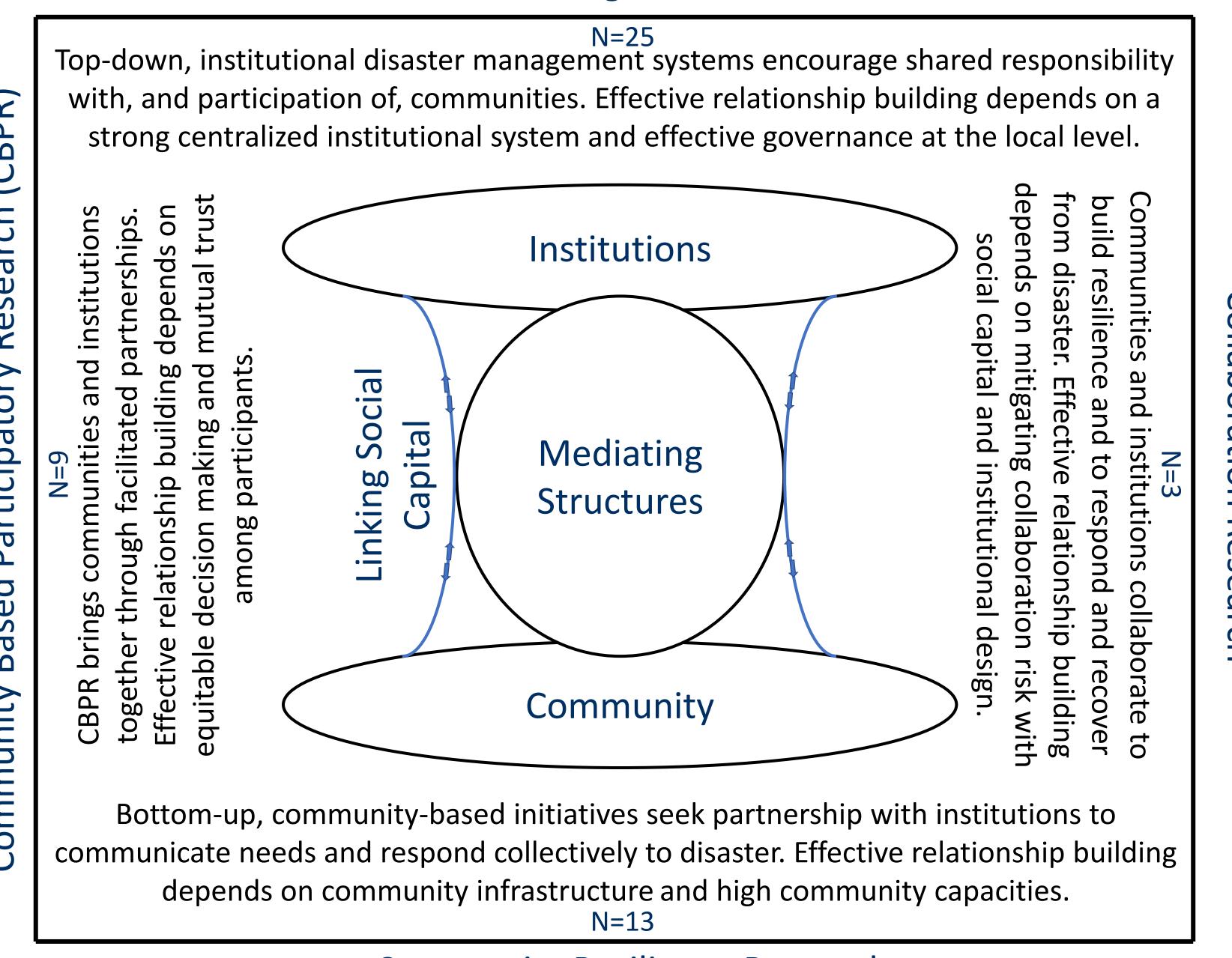
> After removal of duplicates 227

> After removal of duplicates with borad search 152

> After reading & thematic sorting 95

Generalized Academic Framings

Disaster Management Research



Community Resilience Research

Recommendations for City Pilot Projects

1) We recommend that the City allow community partners to focus on short-term resilience building efforts aimed at crises the community faces daily (Koch et al. 2017). This strategy would better align the mandates and resource capacities of community partners while still strengthening connections between the City and the community that can be called upon when disasters strike (Koch et al. 2017).

2) A key concern to building resilience in cities is that the impacts of environmental shocks and stressors are often distributed unevenly as a result of geographic and social characteristics, with low-income, low-elevation populations often being disproportionately affected (Dodman and Mitlin 2013). Therefore, it is important to ask the questions: 'resilience to what?', and especially, 'resilience for whom?', so as not to neglect underlying vulnerabilities in communities and inequalities in community outcomes (Cutter 2016). The City should consider geography, but especially demographics, when choosing neighbourhoods for pilot projects.

2) When forming community partnerships, emphasis should be placed on organizations that show characteristics of community backbone organizations, as in the case of The East Scarborough Storefront (Gloger et al. 2017). These community capacity-building organizations tend to hold long-term community development perspectives and are well connected within the communities they serve (Fitzpatrick and Molloy 2014; Gloger et al. 2017), therefore offering themselves as a more strategic partner for the City.

4) To avoid collaboration risk (Jung and Song 2018), the City should clearly define the roles and responsibilities of all parties and adequately compensate all community partners, recognizing the resources required to maintain a relationship with, and a flow of information to, pilot project organizers (M. U. I. Choudhury, Uddin, and Haque 2018; Gagnon et al. 2016; Ziegler et al. 2019).

Community Based Organizations

The term "community-based organization" (CBO) is used freely across all identified literatures to describe disaster, service, and civic organizations of various kinds (n=18). However, there is no consensus on whether these organizations are CBOs or not – some papers described them as such while others clearly distinguished them as being something different.

# of Papers that Classify an		# of Papers that Distingui
Organization in the	Category	an Organization in the
Category as being a CBO		Category from being a CE
4	Civic Organizations	3
10	Service Organizations	8
4	Disaster Organizations	1

Furthermore, there is no clear line between service-delivery and community-development organizations – the term CBO is used freely to describe both.

Mediating Structures

Mediating structures are the organizations or individuals that create vertical linkages between communities and institutions — engaging in external network building while also maintaining their own networks internally. Structures identified in this review include local-level institutions, community-based organizations, and community backbone organizations. However, further research is required to clarify the ambiguity between these overlapping organization types, and to identify the unique roles that each play in building linking social capital between communities and institutions.

Healthy & Resilient Cities Project

This research paper was completed along-side of a CIHR-funded project called Healthy and Resilient Cities: A Connected Community Approach (Healthy & Resilient Cities Project), headed by Dr. Blake Poland of the Dalla Lana School of Public Health at the University of Toronto. The Healthy and Resilient Cities Project is a collaboration between the City of Toronto, the University of Toronto, and local community-based organizations aimed at applying the Connected Communities Approach (Gloger et al. 2017) to inform community resilience building efforts within in the City of Toronto.

References

- Aldrich, Daniel P. 2017a. "The Importance of Social Capital in Building Community Resilience." In Rethinking Resilience, Adaptation and Transformation in a Time of Change, Springer International Publishing, 357–64.

 Choudhury, Mahed Ul Islam, M. Salim Uddin, and C. Emdad Haque. 2018. "Nature Brings Us Extreme Events, Some People Cause Us Prolonged Sufferings': The
- Role of Good Governance in Building Community Resilience to Natural Disasters in Bangladesh." Journal of Environmental Planning and Management. Cutter, Susan L. 2016. "Resilience to What? Resilience for Whom?" Geographical Journal 182(2): 110–13.
- Dodman, David, and Diana Mitlin. 2013. "Challenges for Community-Based Adaptation: Discovering the Potential for Transformation." Journal of International Development 25(5): 640–59.
- Gagnon, Elizabeth, Tracey O'Sullivan, Daniel E Lane, and Nicole Paré. 2016. "Exploring Partnership Functioning within a Community-Based Participatory Intervention to Improve Disaster Resilience." Journal of Higher Education Outreach and Engagement 20(2): 25–54.
- Gloger, Anne, Ewa Cerda Lllanos, James Iveniuk, and Ewa Modlinksa. 2017. The Connected Community Approach: A Theoretical Framework. https://connectedcommunities.ca/C3-2017/wp-content/uploads/2018/03/C3-CCA-TheoreticalFramework.pdf (October 23, 2019).
- Hoffman, Lily M. 2014. "From Sustainability to Resilience: Why Locality Matters." Research in Urban Sociology 14: 341–57.
- Jung, Kyujin, and Minsun Song. 2018. "The Impact of a Strong Commitment on Disaster Resilience: A Longitudinal Study of the 2012 Korean Typhoons." Journal of Homeland Security and Emergency Management 15(2).
- Koch, Heather et al. 2017. "Community Views of the Federal Emergency Management Agency's 'Whole Community' Strategy in a Complex US City: Re-Envisioning Societal Resilience." Technological Forecasting and Social Change 121: 31–38.

Morello-Frosch, Rachel et al. 2011a. "Community Voice, Vision, and Resilience in Post-Hurricane Katrina Recovery." Environmental Justice 4(1): 71–80.

Norris, Fran H. et al. 2008a. "Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness." American Journal of Community Psychology 41(1–2): 127–50.

Spaans, Marjolein, and Bas Waterhout. 2017a. "Building up Resilience in Cities Worldwide – Rotterdam as Participant in the 100 Resilient Cities Programme." Cities

- Pfefferbaum, Betty, Richard L. Van Horn, and Rose L. Pfefferbaum. 2017a. "A Conceptual Framework to Enhance Community Resilience Using Social Capital." Clinical Social Work Journal 45(2): 102–10.
- Steffen, Will et al. 2011. "The Anthropocene: From Global Change to Planetary Stewardship." In Ambio, , 739–61.
- Ziegler, Todd B et al. 2019. "Shifting from 'Community-Placed' to 'Community-Based' Research to Advance Health Equity: A Case Study of the Heatwaves, Housing, and Health: Increasing Climate Resiliency in Detroit (HHH) Partnership." International Journal of Environmental Research and Public Health 16(18): 3310.