

Building social capital after Hurricane Katrina

**Oren Benjamin Krajden
School of Social Work
McGill University, Montreal
July, 2010**

**A thesis submitted to McGill University in partial fulfillment of the
requirements of the degree of Master of Social Work.**

**Copyright 2010
Oren Benjamin Krajden**

ACKNOWLEDGMENTS

I am deeply grateful for the support of my supervisor who believed in me throughout and offered her bottomless support and guidance. The completion of this thesis would not have been possible without her help and without drawing on her experience, intelligence, humor and patience. To many faculty and instructors at the McGill School of Social Work, the University of British Columbia, and Louisiana State University, thank you for your assistance and valuable insights. Thanks to David-Marc Newman for assisting in the French translation of the abstract. To my great-uncle Iser, who died during the development of this thesis, who survived many atrocities and led our family across the ocean, and who lives in my thoughts daily. To my parents, grandparents, extended family and friends, thank you for your assistance and support.

ABSTRACT

Disaster response is a vital field in social work practice. Social workers commonly treat posttraumatic stress, assist in planning, logistics, and the protection of vulnerable populations. In 'complex disasters', where official sources of assistance have limited reach, social workers are called upon to adopt an increased coordination and networking role within the community. The case of Hurricane Katrina in 2005 is frequently studied because its protracted recovery illuminated the importance of community networks. However, although the social work literature analyzes efforts towards community development by local residents, there is a gap in the study of the efforts undertaken by social workers themselves. This study investigates the action of social workers in improving social networks during Hurricane Katrina. A case study of the hurricane was conducted using archives from the year 2005 to 2010. Reports of social worker activity in the aftermath of the disaster were analyzed using social capital theory for evidence of attempts to build social networks via bonding (homophilous), bridging (heterophilous) and linking (institutional) exchanges. Social workers were found to have facilitated bonding social capital between themselves and their clients, their own families, and within the social work profession. Bridging social capital was at times increased between geographic, cultural and racial communities, but social workers were not immune to prejudices which could impede this process. Linking social capital was very difficult to provide, as access to institutional sources of assistance could be sporadic and inconsistent. Nevertheless, there was evidence that linking capital was built between vulnerable populations and helping agencies, clinics, the military, as well as faith-based and other community organizations. The presence of the practitioner-client relationship presented distinct opportunities and obstacles and differentiated the social capital exchanges in this study from networks observed among residents by other authors. Social capital theory was found to be of limited descriptive power, and concepts of bonding, bridging and linking were found to be overlapping, ambiguous and interlinked in practice, and often depended upon one another. Implications are discussed for policy, practice, and research.

RÉSUMÉ

L'intervention en cas de catastrophe est un domaine essentiel du travail social. Les travailleurs sociaux traitent souvent le stress post-traumatique, aident à la planification, à la logistique et à la protection des populations vulnérables. Dans des cas de « désastre complexe », où les sources officielles d'aide n'ont qu'une portée limitée, les travailleurs sociaux sont toutefois appelés à jouer davantage un rôle de coordination et de création de réseaux au sein de la communauté. Le cas de l'ouragan Katrina en 2005 est très étudié puisque le rétablissement retardé suite à la catastrophe permet de souligner l'importance des réseaux communautaires. Il existe de la documentation sur le travail social qui analyse les efforts de développement communautaire des résidents locaux, mais très peu sur les efforts des travailleurs sociaux. Cette étude examine les actions entreprises par les travailleurs sociaux pour améliorer les réseaux sociaux après l'ouragan Katrina. Une étude de cas sur l'ouragan a été réalisée à l'aide de documents d'archives datant de 2005 à 2010. Des rapports sur l'activité des travailleurs sociaux après la catastrophe ont été analysés selon la théorie du capital social afin de trouver des cas de création de liens sociaux d'attachement (homophilous), d'acointement (hétérophilous) ou instrumental (institutionnels). On constate que les travailleurs sociaux ont facilité la création de capital social d'attachement avec leurs clients, avec leurs propres familles et au sein de la profession du travail social. Il y a également eu, à certains moments, une hausse de capital social d'acointances entre les différentes communautés géographiques, raciales et culturelles mais les travailleurs sociaux ne sont pas eux-mêmes à l'abri de préjugés, ce qui a entravé le processus. Le capital social instrumental était difficile à créer puisque l'accès aux sources d'aide institutionnelles était sporadique et inconstant. Toutefois, on peut constater la création d'un certain niveau de capital social instrumental entre les populations vulnérables et les agences d'aide, les cliniques, l'armée, et les organisations confessionnelles et autres organismes communautaires. La présence d'une relation intervenant/client offrait des occasions et obstacles différents et distinguait les échanges de capital social de cette étude des réseaux observés chez les résidents par d'autres auteurs. La théorie du capital social n'avait qu'un pouvoir descriptif limité et on peut constater un chevauchement, une ambiguïté et une interdépendance des notions de capital social d'attachement, d'acointances et instrumental au niveau pratique. Les incidences au niveau de la politique, de la pratique et de la recherche sont examinées.

Table of Contents

Ch.1 – Introduction

1.1 Introducing disasters – from external hazards to social vulnerabilities	7
1.2 The critical role of community social networks	10
1.3 Helping communities respond to disasters: Terrain for social work	12
1.4 The Problem: The potential for social work to build damaged social networks ..	13

Ch.2 – Literature

2.1 The impact of disasters on communities	16
2.2 Theoretical perspectives on social work community building in disaster:	19
2.2.1 Crisis Intervention	19
2.2.2 Social Capital	22
2.2.3 Resilience	24
2.2.4 Self Help	27
2.2.5 Social Actions	29
2.2.6 Community Capacity	31
2.3 ‘Complex disasters’: The challenge for communities and social work	33

Ch.3 – Methodology

3.1 Preliminary review of the literature	36
3.2 Case study design	37
3.3 The case of Hurricane Katrina	38
3.3.1 Severity and effect of Hurricane Katrina	39
3.3.2 Challenging policy context	43
3.4 Method of selection of literature	47
3.5 Social Capital Theory – Did social workers engage in bonding, bridging, and linking?	48

Ch.4 – Findings

4.1 Main findings: Social Capital and social workers in Hurricane Katrina	54
4.1.1 Bonding	54
4.1.2 Bridging	59
4.1.3 Linking	65
4.2 Discussion of findings: The Value and Limitations of Social Capital Theory	69

Ch.5 – Conclusions

5.1 Implications for social work practice	72
5.2 Implications for policy	75
5.3 Implications for further research	78

Bibliography	86
---------------------------	-----------

Ch.1 – Introduction.

1.1 Introducing disasters – from external hazards to social vulnerabilities

Through the latter half of the 20th Century, the concept of “disaster” in the literature has evolved from a focus on the natural and human-made hazards that lead to disaster events, towards an understanding of these hazards in the context of an affected society and its infrastructures. After all, an ice storm may be a major disaster in Montreal and potentially catastrophic in Virginia, but could be otherwise unremarkable in the Arctic. A disaster may be more broadly considered to be an event where a hazard interacts with a social vulnerability, or a set of social vulnerabilities (Quarantelli, 1998; Silove and Steele, 2006).

Since sociologists, psychologists and social workers began to make inroads into the field of disaster research, disasters have come to be understood less as the failure of natural or technological systems, and more as a fracture at the interface between these failures and their human consequences (Quarantelli, 1998). A natural hazard was not considered, in itself, to constitute a disaster unless human populations are affected, and the importance of *social vulnerability* was realized. Although disaster researchers traditionally focused on assessing physical and structural risks of disasters from the natural and built environment, the increasing focus on social vulnerabilities have provided a means to study disasters in their human and social context (Bankoff, Frerks, & Hilhorst, 2004). Disaster researcher Juergen Weichselgartner suggests that reducing vulnerabilities can be expected to reduce damage and loss (Weichselgartner 2001).

The social science research on disasters quickly elucidated a set of *disaster myths* from. These are regarded by disaster sociologists as “folk theories” or sets of misconceptions about

human behaviour during disasters that are widely perpetuated in the media (Auf der Heide, 1996). Where groups of people were previously considered to behave irrationally in disasters and prone to extreme panic, these investigators described populations that could be highly rational and that expressed panic comparatively rarely (Auf der Heide, 1989).

Popular depictions of people as likely to engage in wanton antisocial behaviours such as looting or violence, and a propensity to discard ethical norms were not found to withstand careful scrutiny (Quarantelli, 1960, Auf der Heide, 1996). In fact, communities facing disasters were usually found to be highly concerned with the welfare of those around them and often offered each other their assistance and generosity. Volunteers were found to demonstrate considerable altruistic behaviour. The myths of disaster-struck communities as “paralyzed,” unable to act, and wholly dependent upon leadership were also found to be fanciful; researchers instead revealed groups of highly self-directed people taking their own initiatives (Quarantelli, 1960). They were shown to ignore policies or directives which they did not regard as legitimate, even in totalitarian regimes (Auf der Heide, 1996). Furthermore, it was often argued by disaster sociologists that policies founded on erroneous assumptions about group behaviour during disasters are likely to be ineffective (Auf der Heide, 1996; Dynes, 1974).

The general definition of a disaster is: low-probability events where coping mechanisms and coping infrastructure exceed coping resources (Auf der Heide, 1996). A disaster necessarily causes the interruption of routine coping systems, and exceeds the regular expectations placed upon coping resources. Disasters are thus distinct from “emergencies” *per se*, as the latter may be managed by routine procedures executed by the agencies responsible (Quarantelli, 1998).

Viewed in this light, disasters may result from human-made events as well as natural hazards; these are dubbed “technological” disasters (Baum, 1983). Increasingly, the effects of

technological disasters are felt as human-made technological systems expand, such as power failures, economic depressions, and chemical spills. A comparison of the effects of disasters caused by the breakdown of technological systems with natural disasters found that technological disasters are more likely to elicit effects that last longer, and are more likely to make an impact on distant locations. (Baum, 1983).

Incorporating the concept of technological disasters, Norris (2007) has offered a holistic definition of disaster as: “a potentially traumatic event that is collectively experienced, has an acute onset, and is time delimited; disasters may be attributed to natural, technological, or human causes (Norris, 2007; Norris, 2006).” This definition accommodates many diverse external causes and focuses on the collective experience of the impact, rather than the hazard itself.

This element of “collective experience” means that whole communities may be affected by disasters, and that whole communities are implicated in the response to disasters. Both natural and technological disasters have put increasing pressure on governments and non-state actors like community organizations to assist the public from loss of life and damages (Dynes, 1974). This is because disasters are a considerable source of instability for communities, municipal and regional authorities, as well as states (Comfort 2006). Communities are often placed under stress during disaster and may undergo changes. Certain authors like Barthol and Ku (1959) argued that groups regress towards habitual responses that they have learned before the incident, and that group creativity is stifled during disaster. However, such “regression” is not considered inevitable. Karl Weick analyzed the impact of the 1949 Mann Gulch fire disaster on a community and determined significant breakdown in role structure. However, he observed four helpful practices: the construction of “virtual” role systems, as communities fought to restore missing or absent roles, the practice of improvisation and bricolage, using locally acquired

wisdom, and setting norms of respectful interaction among individuals (Weick, 1993). There are many different perspectives on how disasters may damage community processes, and a closer treatment of this topic is given in the literature section (Chapter 2).

1.2 The critical role of community social networks

Disaster expert Louise Comfort wrote: “The challenge for cities is to create a new vision of vital, resilient communities that are able to assess and manage their own risk in order to limit escalating damage from extreme events” (Comfort, 2006). The operative word is “communities.” The challenge of disaster response underlines the need to build self-organizing communities that are able to assist themselves, especially in cases where outside help is not available (Simo and Bies, 2007). In these cases, members of disaster-affected communities are heavily dependent upon social networks for knowledge, resources and assistance (Pyles, 2007). As different populations within a community possess different social networks, the burdens, challenges, and resources can be expected to differ within segments of a community (Zakour, 1996). This section presents the importance of social networks to a disaster-affected community, and the next section (Chapter 1.3) will demonstrate the importance of participation by social workers. The literature chapter (Chapter 2) will describe some social work approaches towards community building in response to disaster.

The following case demonstrates how social networks affect a community’s response to disaster: During the 1950 Red River Flood in Southern Manitoba, farming households behaved differently from non-farming households (Buckland & Rahman, 1999). While non-farmers could leave as individuals or small groups, move their belongings and evacuate away from flood

regions, farming households were required to depend on their families to supervise their animals, and to maintain food, water and dryness in their barns. This required leaving some family members behind and supporting them as they sustained the farms through the flood. From this example it is clear that a social factor like family size can affect outcomes in ways that are more pronounced for certain forms of labour than others, as farmers with smaller, or less extensive family networks could be at a disadvantage.

In turn, this disaster may have altered the course of farming labour in at least one community: “One Rosenort [Manitoba] respondent felt the 1950 flood was a watershed event that helped push Red River valley agriculture from more traditional integrated farming involving livestock into modern crop-based agriculture” (Buckland & Rahman, p.180, 1999). From this example it is also evident that disasters can exert a long-term transformative effect upon communities.

In addition, Anishinabe First Nation residents of the flood zone were found to have responded differently in their evacuation patterns than did residents of European origin:

A... profound difference in household response in these early years is found between the European-origin communities of St Jean and Rosenort, and the First Nation community of Roseau River. In the case of the European-origin communities, individual households made individual decisions regarding timing and location of [evacuation], largely to relatives’ homes, before eventually ending up in Winnipeg. In contrast to this, the Roseau River Anishinabe community moved *en masse* several kilometres east to a ridge to find dry ground (near highway number 218). There the community set up a camp using tents brought from Roseau River. Initially not all households had their own tents so some families shared accommodation, and others were exposed to the elements, which in late April/early May still involved cold temperatures and snow on the ground. One respondent reported there were deaths from exposure during the 1950 flood. (Buckland & Rahman, p.180, 1999).

This example shows that Anishinabe residents evacuated as a community and moved their social network as a unit, while residents of European-origin were more likely to move as individual

households. This example also reveals disparities in access to resources and the scarcity of available accommodations which resulted in deaths by exposure among the Anishinabe in Southern Manitoba.

Tragedies such as these reveal the importance of a social work perspective in disaster response. Different populations possess differing social networks and access to resources, and marginalized populations often experience more severe outcomes due to pre-existing vulnerabilities (Zakour, 1996). As subsequent sections will demonstrate, social workers can help provide direct and indirect support to meet these needs (NASW, 2003; Zakour, 1996; 2003). This thesis will describe examples of social workers who have achieved successes, as well as shortcomings in providing assistance, leadership, and advocacy to communities affected by disaster.

1.3 Helping communities respond to disasters: Terrain for social work

Social workers have a long history of providing services in both disaster response and coordination. In response efforts, social workers often work with state and voluntary agencies to provide emergency relief, organize the deployment of volunteers, and perform case management for special issues such as evacuation and family reconciliation (Galambos, 2005; Zakour, 1997; Trattner, 1994). Indeed, forty percent of the American Red Cross' mental health volunteers are social workers (NASW, 2005).

The typical modalities of relief have been interventions for traumatic stress, protection of vulnerable populations, and management of planning and relief efforts, including resource distribution (Zakour, 1996).

Disaster response by social workers is typically negotiated with the direction of

government agencies, but where state and local aid organizations cannot meet the needs of affected-areas due to underlying vulnerabilities, then a disaster event can result in long and protracted damage to the community (Ozerdem; 2003; Pyles, 2007). These events require rescue workers to demonstrate leadership within and across communities—both to address immediate humanitarian needs and to ensure the continuity and function of civil institutions (Pyles & Cross, 2008; Strang et al., 2005; Cuny, 1983).

Community leadership of this kind is difficult to develop and practice, requiring an understanding of community structure and experience with vulnerable populations in the region (Zakour, 1996). Social workers have long performed work of this type, albeit often informally and without explicit direction or protocols during disasters. Social work researcher Loretta Pyles (2007) criticizes this gap: “Though social work is involved in psychosocial interventions in disasters, the profession has paid less attention to social development...(322).” This role in disaster response is under-acknowledged within the field and outside of it (Zakour, 1997; Siporin, 1987) There is therefore a need for further research on the community development aspect of disaster response.

1.4 The Problem: The potential for social work to build damaged social networks

How should social workers attempt to build communities in disaster affected-areas? Leadership in building and strengthening community networks during disaster is cited by Pyles & Cross (2008) as a need in social work education and practice:

Neighborhood groups and other politically oriented advocacy groups are often in need of training in organizational capacity-building, asset-based community development, and in community organizing and advocacy strategies. If taught such topics in their educational programs, social workers could become vital resources as community organizers and supporters of neighborhood associations and other community development related organizations. (Pyles & Cross, 2008)

These necessities fit naturally within the skillset that social workers deploy during disaster. Social workers participate in disaster settings because they are “uniquely suited to interpret the disaster context, to advocate for effective services, and to provide leadership in essential collaborations among institutions and organizations” (NASW, 2003). Social workers bring insight and training in group dynamics, empowerment building, familiarity with local social processes and structures, as well as embeddedness in their local communities, clientele networks and other social networks (NASW, 2003).

In some disaster literature and organizations there has classically been a focus on individual posttraumatic stress. The focus on skills for intervention in trauma is important, but some authors argue that there is a need for better understanding of the social networks and the community aspect in delivering these and other interventions to individuals and groups. (Bracken, Giller, & Summerfield, 1995). Because the role of the community is critical; this debate in the literature has highlighted the need for better understanding of development in cases where a community suffers from damaged social networks and how to assist in their rebuilding (Pyles, 2007; Comfort, 2006).

The literature review in the next section will discuss damage to communities during disaster, and social work approaches to study and alleviate these effects. The problem that my

thesis aims to address is how actions by social workers facilitate the building of social networks in response to disaster, specifically disasters in which official sources of assistance are limited. This is because the importance of local social networks is increased in these cases (Pyles, 2007; Simo and Bies, 2007). The link between this content and my research inquiry will provide a theoretical perspective from which to study a disaster case and the actions of social workers within it.

Ch.2 – Literature.

2.1 The impact of disasters on communities

This section will introduce some of the social work approaches to working with communities in response to disasters, with the aim of providing a theoretical perspective to this work.

Communities may be adversely affected by exposure to severe or long term disasters (Quarantelli, 1998; Zakour, 1996). Poverty and low functioning governments are indicators associated with poor community outcomes and slow recovery in severe disasters with chronic effects (Zakour, 2003; Berke et al, 1993; Sherraden & Fox, 1997; Sundet & Mermelstein, 1996;). Low levels of coordination among community services and an impoverished community sector are also predictors of poor outcome (Zakour, 2003). Vulnerable populations marginalized due to age, poverty, race and disability are especially susceptible to long term community damage from disaster, as they tend to be more likely to reside in areas with weaker labour market attachment, poor social service coverage, comprise weaker political constituencies, and possess smaller or less influential social networks on which they can depend (Zakour, 1996; Zakour & Harrell, 2003; Flint & Brennan, 2006).

There is a debate over whether to consider the effects of disaster on community occur as an effect on an agglomeration of different individuals, or as a distinct unitary actor called “community” (Quarantelli, 1985; Ursano et al., 1994). Scholars adopting the “community perspective” predict generally that poor outcomes stem from community-wide deficits, such as poor predisaster planning and low resources in community organizations (Quarantelli, 1985). Scholars from a “psychological trauma” perspective view the effects on individuals as the most

important factors, and believe that the magnitude of the event and intensity of the resulting trauma are the strongest predictors of long term disruption of community processes (Ursano et al., 1994). Sectors of the community with higher exposure are considered to be at higher risk of experiencing trauma Frazer & Taylor, 1982).

However, even within the “psychological trauma” perspective, there is recognition of the importance of culture and of pre-existing community norms:

Psychosocial contexts, as well as culture, are identified as *important modulating processes* - they may be reflected in: the support which may buffer and facilitate working through and integration of the stressor experience; the form and pattern of community responses and their effects; the secondary trauma of relocation; the dislocation and disruption of social frameworks; and the social movements of professional support...(Raphael in Ursano et al., p.8, 1994)

The work of rebuilding communities after disaster occurs in the unique social and cultural context of the area. It is for this reason that Silove and Steele remarked (2006) that disaster response must be “community-based, family-focused and culturally sensitive (121)”

Disaster may result in significant social changes occurring within a community during a relatively short timeframe. Landau and Saul (2004) describe five major changes: **(1) Changes to family dynamics**; this includes new conflicts and the “parentification” of older children who may be called to fill the role of a deceased or missing parent; **(2) Changes in bonding patterns**, including changes to the roles and functioning of individuals; **(3) Lack of context or Loss of ability to contextualize**; this may occur as is there no pre-existing framework in which to place the catastrophic events, and memory formation is compromised by traumatization. **(4) Impact on communication patterns**; Landau and Saul describe the potential for a “conspiracy of silence” to arise, due to an unwillingness to speak of the event, as in the case of Holocaust refugees. **(5) Changes to community resources**; this occurs as community members conserve or hoard scarce resources, and as hidden reserves within the community are uncovered and tapped. **(6)**

Reconnecting the transitional pathway; This is the process of attempting to heal, to recover property, reconnect broken families and develop a meaningful transition to a “normal” existence (Landau and Saul in Walsh & McGoldrick, 2004).

However, this model may not be complete. The experience of evacuation and human flight can result in members of one community taking up shelter among members of a new community with unfamiliar norms, customs, and expectations; this stressor may be exacerbated for members of already marginalized minorities (Streeter and Murty, 1996). Even if minority evacuees choose to relocate to a *homophilous*, or similar minority community of “like” individuals, they may find themselves coming to form an isolated sub-community within their homophilous community, what Zetter and Pearl (2000) dubbed “the minority within the minority”.

Chemtob & Taylor (2002) believe in an evolving set of stages to explain community trauma response, called “survival mode theory”. They argue that a pre-existing “threat detection system” and an “affiliative system” become activated during disaster. In the first system, individuals experience arousal and hyper vigilance for threats in the post disaster environment. The threat detection system is most sensitive to threats against the self, family members, and *homophilous*, or “like” individuals in the community. The secondary response is the affiliative system which causes communities to strengthen social bonds and initiate “norms of altruism,” allowing the community to respond in a more unified fashion than in predisaster situations. However, once the threat level is reduced; these systems may become maladaptive for normal functioning following the end of the disaster. For example, prolonged activation of the “threat detection system” may result in fear of *heterophilous*, or “unlike” groups. However, it is also possible that the intergroup bonding achieved during the activation of the affiliative system may

result in some sustained intergroup relations once the disaster is over (Chemtob & Taylor, 2000).

These models are somewhat ambiguous, and it is difficult to utilize them to render precise predictions about the behavior of individuals and groups. However, they may be useful in conceptualizing community behavior in response to disaster in an explicit framework. There is need for further research into the effects of disaster on community processes (Silove and Steele, 2006; Streeter and Murty, 1996). The next section will offer a discussion of theoretical perspectives in social work on community building in response to disaster.

2.2 Theoretical perspectives on social work community building in disaster

There are a number of theoretical approaches toward community development that are relevant to informing social work practice with communities responding to disasters. This section will provide an introduction to six perspectives. Although an exhaustive treatment of these perspectives is beyond the scope of this thesis, these introductions are intended to reflect the theoretical base I have explored in the process of building a methodology.

2.2.1 Crisis Intervention

Crisis intervention theory provides a lens to understand the process that people undergo in responding to an unforeseen and troubling event. It is possible that crisis intervention may have originated with the response to a natural disaster—in psychiatrist Erich Lindemann's work after the Boston Coconut Grove Fire of 1942 (Reyes and Elhai, 2004; Lindemann, 1944). Crisis intervention considers a crisis as an entity distinct from the disaster. Indeed, Roberts views crises as opportunities, drawing on the oft-repeated meme that the Greek word for crisis derives from

the root words “decision” and “turning point,” and that the equivalent Chinese ideographic character derives from the symbols for both “danger” and “opportunity” (Roberts, 1995). Diverging from the actual disaster, the *crisis* is “a subjective reaction to a stressful life experience” with effects on coping and functioning. (Bard and Ellison in Roberts, p.8, 2000). The “*perception of and response to*” the situation is the crisis, and not the situation itself (8). The site of the social worker’s intervention is the distress from the perception and response to the disaster, and the inability to use coping methods (9).

Many of these interventions are found in forms of psychological debrief following crisis. Debriefs are a discussion in either a group or individual setting, intended to assist survivors and rescue workers to reach psychological closure after crisis and to prevent posttraumatic stress disorder in the long term (Everly and Mitchell, 1997). Participants are encouraged to express their thoughts and emotions, in a process of defusing in order to “make sense of” the event. However, the design and deployment of debriefs is controversial as it has sometimes been associated in empirical studies with negative outcomes – with cohorts whose symptoms worsen following treatment (Deahl 2000; Mayou et al., 2000; Lilienfeld, 2007).

Though often associated with social work practice with individuals or small groups, in some crisis intervention theory, practice with communities following disaster is covered. From this perspective, community response to disaster is conceived as a reaction which occurs in time-ordered stages stemming from an inability to use regular coping methods. The reaction is considered to require supportive interventions, followed by an *action plan* towards achieving *recovery* and *resolution* (Everly & Mitchell, 1997; Dass-Brailsford, 2007; Aguilera, 1998; Everly & Mitchell, 1997; Aguilera and Messick, 1986; Caplan 1964, Caplan 1961).

The crisis is often similarly viewed as occurring in time-ordered stages where interventions are specific to a given stage. Tyheurst (1957) argues that a community undergoes three phases: *impact*, *recoil* and *recovery*. He maintains that interventions must be tailored in a stage specific fashion. For example, while evacuation and dispersal of communities may be necessary at the point of impact, this disruption of networks would be detrimental in the recovery phase (Tyheurst, 1957).

In Streeter and Murty's *Research and Social Work and Disasters*, crisis intervention theory is also applied to disaster social work with the community. In a five tiered model, the social worker "Promotes realistic understanding of the event"; "Provide[s] emotional support and hope"; "Allows/encourages purposeful ventilation— to relive key community leaders of their frustration, anger and disappointment"; "Guide[s] problem partialization" and "Assist[s] governmental and human service providers to make a specific plan of action" (Golan, in Streeter and Murty, p. 64-67, 1996).

In this view, the social work perspective is to interface with the community and rescuers by providing support and counseling and to collaborate with other professionals and decision makers in *partializing* the problem into smaller, more manageable units (Streeter and Murty, 1996). As with crisis intervention with individuals, this model of community intervention focuses on the development of an *action plan* with a view towards *equilibrium* and *resolution* (Roberts, 2000).

Crisis intervention is an important perspective to consider when considering social work with communities during disaster. Though view of the disaster event is one closely related to its therapeutic origins with individuals and small groups, the above discussion has highlighted important insights to disaster social work with communities. It is useful for providing a time

ordered motif to the effects disaster in communities, for viewing disaster as a process, and for conferring upon its progression the motif of life cycle. Unsurprisingly, crisis intervention models tend to prioritize intervention and plans of action. However, its prescriptions and interventions (i.e. debriefs) are not all concretely tested in clinical settings.

2.2.2 Social Capital

Social networks may be conceptualized through the concept of social capital. Putnam's (2000) description of social capital is that "social contacts affect the productivity of individuals and groups" and that rich social networks result in the efficiency, productivity, health, life and vibrancy of a community. These relationship networks are envisioned as webs that connect individuals to individuals, individuals to groups, and groups to groups including formal state agencies, businesses and community organizations. Stressors on a community are believed to reduce social capital and, conversely, reduced social capital exacerbates community stress (Snowden, 2005). Social capital has been utilized as a theory in social work research on disasters (Mathbor 2007; Yanay and Benjamin, 2005; Hawkins and Maurer 2009; Weill, 2006). The social work literature on improving the strength and scale of social networks during disaster argues that social capital can be built using three kinds of networking behaviours: *Bonding*, *bridging* and *linking*. (Hawkins and Maurer, 2009; Schuller et al. 2000). The act of *bonding* is defined as establishing and maintaining connections formed within a person's primary network (within the community). *Bridging* refers to relationship-building that occurs between communities, and *linking* describes an action that connects a person or a community to a larger institution or government agency, for example, assisting a survivor to obtain a loan from a disaster relief fund

or a bank. Social capital thus combines perspectives of micro, macro, and mezzo levels of response into a single framework, yet differentiates among them with these concepts.

Thus formulated, the importance of social networks for an individual living in a disaster context can mean the difference between life and death. Lein et al., (2009) argues “Individuals with weaker social ties are less likely to be rescued, seek medical help, take preventive action (such as evacuating), or receive assistance from others (450).” This is especially important for vulnerable populations, which often have limited social networks fewer resources and lower reserves of financial capital. The margin of acceptable social disaggregation is therefore lower. For example, consider the example of social capital in the low-income family:

Under normal circumstances, low-income families deploy multiple strategies to escape the most serious consequences of poverty ...Such strategies include “swapping networks” of resources and family members, informal work, gifts, contributions from fathers of their children, and assistance from a range of public and private services... Families may piece together assistance from as many as 30 different private or public programs to make ends meet (Edin & Lein, 1997). Even during noncrises, the web of informal supports and helping agencies on which impoverished households rely is complicated, changeable, and often opaque. To navigate this complexity, families draw on the collective experience of friends, neighbors, and other community members to learn about changes in policy, programs, and the availability of resources...(450).

The importance of community networks supports the necessity of further developing methods to improve them through social work research.

There are several limitations of social capital. Firstly, it is difficult to define and measure and reproduce. As bonding bridging and linking social capital are often not discrete actions, but overlapping and fluid, these concepts are difficult to apply as a grounded theory (Pyles & Cross, 2008; Mohan & Stokke, 2000). Moreover, some question the assumption that social capital is inherently positive. At times, some argue, increasing social capital at the level of in-group *bonding* may serve to further entrench discrimination and therefore increase preexisting social inequalities between communities (Aldrich & Kevin, 2008). For the same reason, high social

capital at one structural level may undermine social capital from forming at a higher level—between communities.

Social capital has also been criticized as an ahistorical, technocratic approach, more focused on networks than on individual idiosyncracies: Loretta Pyles writes that

Putnam's theory of social capital fixates on local networks and may be silencing the realities of the political economy, inadequate social welfare policies, and sociohistorical context... Thus, increasing social capital should not be viewed as a cure-all for neighborhoods and communities in need of revitalization.” (Pyles & Cross, 2008)

While social capital is undoubtedly limited and difficult to generalize, it may be useful in a qualitative approach for building theory about social networks, and acquiring perspectives to assist in understanding social work interventions with communities.

2.2.3 Resilience

Resiliency theory is a very broad concept in community work with disasters. The concept of resilience has several definitions, uses, and informs many perspectives on community practice in disasters. Norris et al. (2008) describes 21 definitions of resilience including “the ability of communities to withstand external shocks to their social infrastructure” (Adger, 2000 in Norris et al. p.129, 2008); “the ability of social units to mitigate hazards, contain the effects of disasters when they occur, and carry out recovery activities in ways that minimize social disruption and mitigate the effects of future earthquakes” (Godschalk, 2003 in Norris et al. p.129, 2008); “The process through which mediating structures (schools, peer groups, family) and activity settings moderate the impact of oppressive systems” (Sonn, 1998 in Norris et al. p.129, 2008). Others include: “The capability to bounce back and to use physical and economic resources effectively to aid recovery following exposure to hazards” (Paton, 2000 in Norris et al. p.129, 2008); “The

development of material, physical, socio-political, socio-cultural, and psychological resources that promote safety of residents and buffer adversity” (Ahmed, 2004 in Norris et al. p.129, 2008); and, “A community’s capacities, skills, and knowledge that allow it to participate fully in recovery from disasters” (Coles, 2004 in Norris et al. p.129, 2008).

However, it is possible to derive some common themes from these different perspectives—most social work research on resilience focuses on existing strengths, “self-righting tendencies,” and the experience of being a survivor (Garmezy, 1991; Bolin, 1999). Resilience as a concept in disaster social work may be summarized succinctly as “*the capacity for healthy recovery and survivorship*” (Greene p.58, 2007).

Harvey (1996) emphasizes the pre-existing strengths in communities and the importance of developing a community’s ability to become self-sufficient. Resilience theorists often stress the importance of empowering a community to take charge, and develop direction for recovery locally (Fullilove and Saul, 2006). In this sense it is connected to the concept of self help. It may be useful because it provides a framework for outside sources of help to structure their assistance around building local capacity and avoiding facilitating a dependency to external sources of help (Perez-Sales et al., 2005).

While many authors agree that resilience theory is strengths-based, there are debates as to the source and purpose of resilient behaviours. Developmental scholars see resilience as an asset within communities and focus on the disaster as a *critical life event* which can challenge a community’s resilience (Diehl, 1999; Baltes, Lindenberger, & Staudinger, 1998). This may occur because the disaster has exerted unsustainable demands on communities, and exceeded their collective coping resources (Greene, 2007; Gist & Lubin, 1999). Alternatively, resilient behaviours have been described as a *process*—either an improvement in a community’s ability to

survive and recover, or a process of developing *meaning* from an experience that began as difficult to understand (Krause, 2004)

The use of resilience-based approaches appears to be increasing. Roberta Greene believes the use of resilience theory is increasing in social work because it reflects a growing perspective that social work practice should be carried out *in environment* and *in context*. (Greene, 2002)

However, there are many interventions that derive from the body of resilience theory. For example, Norris et al. (2008) argue that improving resilience-based interventions can be achieved by community collaboration across different sectors and professions.

The LINC Resilience Community Resilience Model offers an example of a framework used to apply resilience theory to community disaster response (Landau-Stanton, 1986; 1990; Ursano, 2004).

As an example of resilience, Landau presents a list of 14 core principles. These principles are important as a demonstration of the prescriptions of resiliency theory for community disaster response, and their inclusion in this thesis is meant to illustrate the importance in resiliency theory on locally-driven solutions and caution towards external intervention:

Ensure that we have an invitation, authority, permission and commitment from the community; **Engage the entire system** of the community, including representation of individuals and subsystems from each cultural and ethnic group, all economic, cultural and status strata; **Identify** scripts, **themes** and patterns across generations **and community history**. Maintain **sensitivity** to issues of culture, gender and spirituality; Encourage **access** to all natural and ancillary resources (biopsychosocial, cultural, ecological); Build an effective prevention/management context by **collaborating** across all systems; **Foster a balance of agency and communion** across the community; Build on **existing resources**; Relate program needs to **goals, future directions and best interests of the community**; Utilize resources, **turn goals into realistic tasks**, and those into practical **projects**; We provide the process, **the community takes responsibility for the content and goals**; Encourage **community links** (natural change agents) **to become leaders** in their communities; **The more peripheral we are, the more successful** are the program and the community; **Success** of the

project **belongs to the community** (Emphasis added; Landau in Ursano, p.300-302, 2004).

These principles highlight the intervener's desire to remain on the "periphery" of the recovery effort. This differentiates resiliency theory strongly from *crisis intervention*. Rather than managing the recovery of a community, the goal is to instead facilitate a *process* of recovery which is carried out by community members themselves.

Resilience-oriented social work intervention can also include the use of narrative. As survival itself can be an experience laden both with relief as well as guilt for having survived, some authors describe the importance of building a survival narrative to help address these emotions. A survival narrative can be a collective story, and an intervention both to develop a shared sense of meaning for the experience and to deal with the reality of having survived. (Becker, 1997; Gergen & Gergen, 1988; Greene, 2007)

Resiliency is a broadly defined concept. Though resilience is often ambiguously defined and varied in its formulations, it focuses on local knowledge and resources internal to the community as the core of its approach. There are many links between resiliency and other approaches. As we shall observe, many of the facets of resilience can also be found in the concepts of *self-help* and *community capacity*.

2.2.4 Self-Help

Self-help is strongly connected to resiliency and community capacity. As an approach, it focuses on the role of independent communities fostering internal assistance. Special importance is placed on voluntary and community sector organizations and the role of improvisation in the response efforts (Shaw & Goda, 2004; Quarantelli, 1997). To the extent that the self-help model

stresses self-sufficiency, it bears similarities to resilience theory (Ursano, 2004).

Local organizations embedded in the community and with strong ties to it are the most likely source of successful attempts at self-help. The success of community sector and voluntary organizations after disasters has been found to depend on their degree of embeddedness in the community (Shaw, 2003).

However, disaster scholar Enrico Quarantelli argues that improvisation and voluntary assistance are factors that may agitate disaster planning officials and emergency management agencies because it is largely unpredictable and uncontrollable (Quarantelli 1997).

The case of the 1995 Kobe Earthquake is cited as an illustration of community self-help. Kobe, Japan was a city which did not have a strong tradition of voluntarism or self help prior to the disaster (Comfort 1996; Shaw & Goda, 2004). However, community leaders developed an action plan for self help, designed to unite the community, in which Shaw & Goda defined three themes: community creation, community welfare and community business. Each theme was connected with concrete actions, which I have included for reference. For example:

Action 1.5 (Community welfare) – Create a place in the community for welfare activities. A comfortable place is required which will promote interaction and where residents can gather freely. It is possible to promote a sense of community among local residents, and expand to activities related to the whole community as the next step. [...]

Action 1.1 (Community creation)—Locate the base of livelihood within the community. Residents' associations and local NGOs/NPO should create opportunities to promote cooperation within the community. Public-relations activities are also useful to enhance community participation. [...]

Action 1.8 (Community creation) – Network welfare communities: To expand the welfare community businesses, it is important to create networks within and outside communities. The aim is to share the problems of families and individuals. [...]

Action 1.10 (Community business)—Encourage housewives and the aged to take part in community businesses. The middle-aged or older residents have much more interest in volunteer activities and community business. For the sustainability of community businesses, human resources are vital. This can be systematised by using housewives and the aged. [...]

Action 1.11 Make good use of participants' specialties: It is important to welcome participants warmly and at the same time essential to extract their specialties from them. Grouping people with specific knowledge is a good way to extend community businesses (Shaw & Goda, p.32-35, 2004).

These themes show influences from *resilience*, especially in the recurring themes of self-reliance, making use of local resources, and the importance of improving coordination. There is an interrelatedness between the approaches covered in this chapter of the thesis: It is clear from these examples that self-help bears many similarities and interlinkages to other theoretical perspectives such as community capacity and resilience.

2.2.5 Social actions

Quarantelli (1998) describes social action as a tradition in disaster response that arises from the view of disaster as a social vulnerability rather than merely a natural hazard. In this view, a community organizes to confront an external danger that it faces (Schorr, 1987; Quarantelli, 1998). This view is centered on the empowerment of the affected community rather than on the intervention of outside help—the community itself focuses on the external challenges they face, and takes action with the purpose of improving their safety (Butts, 2008). For this reason, some authors look at community response to disaster as “a social result and a consequence of sociostructural risks (Pelanda, 1981 in Quarantelli, p.14 1998).”

Often social action by community leaders is focused against local or federal authorities responsible for responding to the crisis. As an example of social action in disaster, Wolensky and Miller (1981) describe how a disaster-affected community in Wilkes-Barre, Pennsylvania,

organized around an “adversary relationship” (487) with authorities in response to storm flooding in 1972:

The Flood Victim’s Action Council (FVAC) was a social action group chaired by a retired labor organizer. It drew upon working and middle-class disaster victims who sought to protect personal interests in the recovery quagmire... The FVAC’s social action approach placed it in an adversary relationship with local government, federal agencies, and the FRTF [federally-appointed Flood Recovery Task Force]. Through its populist eyes, the recovery was viewed as a battle against uncaring bureaucrats, greedy local business interests, and incompetent politicians, all of whom had no real concern for “the little guy” or “the common man.” [...] For political reasons, the FVAC had considerable influence with the state government. (Wolensky and Miller, p.487, 1981)

In this account, there is clear evidence of attempts to use elements of social action such as the formation of political caucuses, pressure tactics, and the polarization of the community by organizers against an organization in authority (Wood & Middleman, 1991).

Social action theory has a tendency towards interpretations of the disaster context that highlight the importance of community organizing and tends to view the allocations of resources in the wake of disaster as reflecting underlying class structure or other forms of social exclusion (Stallings, 2002). The theory focuses less on the natural or technological hazard in the disaster as much as on the unstable social context and the role of authority figures. Social action theory is most interested in the effects of disaster on community politics, and the effects of disaster as it intersects with pre-existing political cleavages such as poverty (Stallings, 2002). In that respect is it not divorced from self-help and even resilience-based approaches, which also stress the importance of grassroots mobilization and advocacy driven by locally-originating concerns.

2.2.6 Community Capacity

Like prior approaches, community capacity is also locally-driven, inclusive and process oriented (Goodyear, 2000; Eade, 1997). It has been defined by the Effective Communities Project as “the combined influence of a community’s commitment, resources, and skills that can be deployed to build on community strengths and address community problems (Mayer, p. 2, 1995).”

However, community capacity has been described by Goodman et al (1998) as an ambiguous term, and typically draws from many disparate themes such as using community-based sources of strength and values, understanding community history, developing a large and diverse network of actors, inclusiveness and representativeness, collective action, citizen participation and both formal and informal styles of leadership, interorganizational networking, innovation and risk-taking, as well as respect, generosity and service to others (Goodman et al., p.261-262, 1998).

Community capacity bears many similarities to some aforementioned concepts such as the strength-based approach. Like social capital or resilience, community capacity is also viewed as an asset. Although the concept possesses a diverse array of attributes, it does bear important lessons for community responses to disaster when applied to a specific topic. For example, Longstaff (2005), argues that community information capacity by way of timely, dependable and accurate information about a disaster is more important than a detailed plan beforehand. Using Longstaff’s model, planners would be advised to develop better information gathering systems rather than planning for every possible contingency.

Minkler (1990) argues that community capacity can be distinguished from its opposite,

the Alinsky Model of Social Action. This is because, for Minkler, community capacity is a “power with” rather than “power over” approach. She argues that a Community Capacity response is strengths-based, and therefore fundamentally opposed to centralized control by a small cadre of community organizers, which she frames as “needs based.” However, Minkler does believe that community capacity is similar to *empowerment-oriented* social actions with the important distinction that it is more focused on collaboration and less focused on advocacy than either form of social action (32)

Community capacity building has been deployed for disaster response in the Phillipines with initiatives focusing on alleviating vulnerability (Allen, 2006). The initiatives sought to improve information dissemination, training, and the speed and efficacy of mobilizing local people and knowledge through local mapping exercises and community meetings. Allen saw the empowerment of local knowledge, institutions, and practices, but also observed disaffection with local customs by foreign disaster planners and misreporting of stories from community members. Allen (2006) believes that the initiatives have both the ability to disempower the residents as well as empower them and cautions their use as a “panacea” (81).

Discussion of community development theories

Looking across all these theoretical perspectives, it is clear that there is a considerable amount of synergy between them. Each one provides its own perspective but, as discussed above, themes from community capacity- building, self-help and resilience are to some degree interrelated, with common themes of locally-driven decision making, mutual assistance and grassroots mobilization. Not dissimilarly, social capital focuses on the social *networks* that lie within the community as a resource. They form a theoretical landscape with different approaches

to enable a community to rebuild itself after disaster. Social action builds from a critical and social conflict end of the theoretical spectrum, and emphasizes organizing the community to meet demands. Crisis intervention does not emphasize the role of local knowledge explicitly, yet shares with other theories of disaster social work a focus on *process*, resourceful action plans and inclusive collaboration.

Having reviewed the various theories of community development which have addressed the role of social workers in disasters, I have concluded that my research will adopt the perspective offered by social capital theory. It operates at a sufficiently general level to encompass a range of activities relevant to disaster social work, and makes a contribution to an understanding of self-help, capacity-building and resiliencies. Its concepts of bonding, bridging and linking are frequently cited and have been operationalized to conduct empirical research on disasters. For further discussion, see Chapter 3 – Methodology.

2.3 ‘Complex disasters’: The challenge for communities and social work

Given the research question of social workers’ roles in community response to disaster, I have further narrowed my focus to disasters where the community plays a central part. Thus far I have used Norris’s definition of disaster **adopted in the introduction**: “a potentially traumatic event that is collectively experienced, has an acute onset, and is time delimited; disasters may be attributed to natural, technological, or human causes (Norris, 2007; Norris, 2006).”

However, not all disasters are alike; a distinction has been made in the literature for “complex disasters;” these are cases where official state sources of assistance are limited or

ineffective, and where the effects on the community are experienced in the long term (Burkholder and Toole, 1995; Burkle, 1995). The United Nations Department of Humanitarian Affairs summarizes the concept of complex disasters in its Reference Manual on Military and Civil Defense Assets:

Essentially a complex disaster is a form of human-made emergency in which the cause of the emergency as well as the assistance to victims are bound by intense levels of political considerations (UN Department of Humanitarian Affairs, 1995).

Though they are not limited to the developing world, these types of disasters occur frequently there because of high political and social vulnerabilities and the often limited reach of the state (UN Department of Humanitarian Affairs, 1995). The problem of complex disasters is a rising one for international humanitarian agencies and NGOs. Anne M. Bauer, Chief of the Special Relief Operations Service at the Food and Agriculture Organization of the United Nations (FAO) stated: "Today, complex disasters represent more than half of our work (FAO, 1999)."

Notable in this definition is the human-made aspect. Norris himself argued that his definition of "disaster" was limited for the case of large scale disasters where a state's limited ability to respond results in long term implications on the community, "not because they are less important but because the dynamics of how such stressors unfold over time are different enough to warrant boundaries of the potential applicability of theory and research (Norris, 2007)."

The long-term effects on community is characteristic of complex disasters. This renders them important terrain for social work research (Pyles, 2007). The reason for this is that social workers are embedded in local communities, and are, along with other helping professionals, ideally suited to carry out the work of aiding community response to disaster.

But what should social workers do in their work with communities when disasters occur? Zakour (2003) offers some suggestions:

Social workers should educate the community about mutual support, particularly in chronic disasters. Social workers can also develop communication linkages among critical community leaders, both horizontally and vertically. Finally, social workers should help foster resource awareness and disaster preparedness related to resources (Zakour, p.32, 2003)

Dodds and Nuehring (1996) and Yanay and Benjamin (2005) argue that disaster intervention for community restoration is an underdeveloped subject in social work education, and highlight the need for further research.

Social workers are ideally suited to the disaster setting for interventions, addressing of power dynamics and embeddedness in communities (Rowlands and Tan, 2008). Social workers played an important role on the ground in several disasters (Yanay & Benjamin, 2005; Mathbor, 2007). But there is often insufficient focus on community development and community-level processes (Hawkins and Maurer, 2009; Pyles, 2007; Moyo and Moldovan, 2008). Although it is clear that there exists a rich literature on disaster social work, there is a gap in the literature surrounding social work intervention in *complex* disasters, situations where political considerations, or limited sources of official assistance have complicated a natural or technological hazard, and affected a community's recovery in the long term. When disasters result in such long-term damage to communities, Norris (2007) argues that further research is necessary to understand these events because the way "such stressors unfold over time are different." How best to close this gap? What are social workers' roles in community-building during disaster—specifically during such disasters with profound, long-term community impacts? The methodology section will address this question in Chapter 3.

Ch.3 – Methodology.

This section describes the methodology for the preliminary literature review (Chapter 2), and a description of the thesis methodology for subsequent review of a disaster case study. The selection of Hurricane Katrina is explained, and the context of the case is discussed. I will describe the steps taken to select sources of information about social workers' role in building capital after Hurricane Katrina, and my approach to analyzing these documents through the lens provided by the social capital concepts of bonding, bridging and linking.

3.1 Preliminary review of the literature

Motivated by my interest in disaster social work with communities, I read broadly around the topic. To develop my theoretical background (Chapters 1 & 2) and inform the preliminary chapter covering the literature (Chapter 2), a reading list of materials in disaster social work and related social sciences was compiled. Consultation on materials was conducted with Dr. Wendy Thomson, and with disaster and emergency planning expert Dr. Bonnie Henry at the University of British Columbia. Literature searches of the McGill and University of British Columbia Catalogues were performed and studied, including the Social Work Abstracts database, Proquest, and Sage using keywords “disaster (response),” “emergency (management),” “disaster research,” “disaster,” and “social work(er).” Search terms also included names and publication histories of prominently cited authors such as Quarantelli, Zakour, and Dynes, which were also determined from an iterative process of selection. The reading list was composed entirely of peer-reviewed works and publications. Reviews of the literature were especially closely examined. This reading list revealed a historical evolution of disaster social science research and a diversity of current approaches to disaster social work. These findings are discussed in Chapters 1 & 2.

This is only the preliminary literature search conducted for Chapters 1 & 2. To address the research question of this thesis, a second literature search process is described in section 3.4. The findings were generated from this second, focused literature search as in section 3.4. The next sections describe the development of the methodology for the thesis.

3.2 Case Study design

A case study is a method of inquiry into a single event, or into set of events that converge around a single time or place. Reviewing a case study requires an understanding of the event-in-context, with respect to the social, political and economic circumstances (Creswell, 1998). Analysis in context of these forces will permit a more detailed examination of phenomenon.

When utilizing a single case, the ability to render inferences of causality and generalizability are restricted. In the words of Harling (2002), “The phenomenon and setting are a bound system.” The type of case study selected was an “intrinsic” case study. Stake (1995) defines two types of single-case investigations: intrinsic and instrumental. The instrumental case study is studied with intent to generalize, for example to generalize to every natural disaster. If selected, this method would be facilitated by selecting a “typical” case. The intrinsic case study is particularly suited to a unique case. Intrinsic case studies are about a single atypical event, and for this reason results in more limitations on generalizability. It is utilized to learn about the phenomenon in a particular context.

Although the limitations and reservations made here about case studies are merited, they are still ultimately an important proving ground for knowledge in disaster research, where causal factors are often interlinked and difficult to parse apart by comparative analysis (NASW 2005b). It was for this reason that Harling (2002) described the event and its contributing factors as

“bound,” and it is for this reason that the research on disasters is composed largely of case studies, theoretical models, and ethnographic observation. Case studies may therefore be the best available approach, if not the best approach in theory. For further discussion on this point see section 3.5. My research question – *How did social workers build social networks where official sources of assistance were limited?*— requires an indepth look at a single case because the context and actions are inherently interconnected. Reviews of cases often predominate in the disaster literature over field studies because of feasibility of execution (NASW 2005b), and our specific research question requires a particular type of case where the community specifically takes on a central role in the face of limits to governmental sources of assistance. Further discussion of these points is elaborated in section 3.4.

For my purposes, the case study I will undertake will be of an intrinsic case – purposefully atypical, where the state had limited reach into the affected area and therefore where official sources of assistance were limited. This type of disaster case will serve to highlight the role of social worker response in the context of community development in a situation where resources are limited, and recovery is long term and protracted. The next section will describe the justification for the selection of the case – the 2005 Hurricane Katrina.

3.3 The Case of Hurricane Katrina

As described above, the intrinsic case method will be used to pursue an inquiry into the phenomenon of social worker assistance in community response. The rationale for selecting the particular intrinsic case of Hurricane Katrina is multi-faceted. As one of the most studied disaster events in the scholarship, Hurricane Katrina has generated a rich peer-reviewed literature (Gill,

2007). The literature on Hurricane Katrina contains higher than usual reports of social worker activity and also bears important aspects relevant to my research enquiry: severe effect and wide distribution of effect in an area, high importance of community response, limited policy context that raised the importance of community development by local actors (Section 3.3(b)). Other complex disasters containing elements of large-scale human flight, and a protracted recovery process with limited sources of official assistance, could potentially contain insights into these phenomena. However, many if not most complex disasters are described in the developing world, and as occurring in contexts of civil war or state failure— situations where what the UN Department of Humanitarian Affairs (1995) calls “intense levels of political considerations,” are sufficiently intense to require a comprehensive treatment of the pre-existing military, cultural and development contexts. Hurricane Katrina is a recent disaster event in the Western context which has been described as a “complex disaster” (Brunsma, 2007; Oliver-Smith, 2006; Mills, 2007). For these reasons it is particularly well-suited to my research inquiry. These points will be further elaborated in the next sections, which describe first the severity and “complex” nature of Hurricane Katrina (3.3a), and then the policy context (3.3b) which surrounded the event.

3.3.1 Severity and effect of Hurricane Katrina

The severity of Hurricane Katrina offered a unique case to study the breakdown of community and human-made community infrastructure. When Hurricane Katrina made landfall on the Gulf Coast in 2005, it marked the beginning of the largest natural disaster in the United States for over 100 years.

De Vita & Kramer (2008) write that an area in the American South approximately the size of Great Britain was affected, and 160,000 homes were destroyed or seriously damaged.

FEMA estimated damages of \$37.1 billion, four times greater than that of the attacks of September 11th, 2001 (De Vita & Kramer, 2008)

Following the receding of the Category 4 storm, structural failure of the city's levee system led to catastrophic flooding in New Orleans. The social impact was profound with 1.7 million displaced persons, 35,000 people rescued and 1,800 deaths (Brunsma, 2007). It was not only the human flight, but also the protracted process of recovery, which set Hurricane Katrina apart as a "complex disaster":

Katrina qualifies as a "complex disaster" based on its far-reaching community impact. The impact and aftermath of the Katrina disaster have been qualitatively different from other disasters that have occurred in the United States... While the aftermath of other hurricanes and even the terrorist attacks of September 11, 2001, can be described as demonstrating movement from acute crisis to active recovery within a few months, New Orleans has been described as moving only "from acute crisis to chronic crisis"... (p. 211; Brunsma et al., 2007)

The *human-made* elements in Hurricane Katrina that rendered it a "complex disaster" were at least six fold: the structural failure of the levee system, the long term effects of human flight, the late and limited response by federal agencies including the late activation of the National Response Plan (NRP), the incapacities of regional and municipal government to coordinate effectively, the impoverished capacity of the community sector to respond and coordinate its activities to assist and rescue survivors, and the profound social inequalities and latent vulnerabilities on the ground prior to Katrina's landfall (Brunsma, 2007). These human effects clearly include failures of civil engineering, emergency management, planning, and governance, as well as long-term social policies.

The UN definition of a complex disaster of "a human-made emergency... bound by intense levels of political considerations" (UN Department of Humanitarian Affairs, 1995)

resonates strongly with this description of the aftermath of Hurricane Katrina by disaster expert Louise Comfort:

Meteorologists had been tracking Hurricane Katrina for four days; yet, news interviews with responsible officials at city, parish, state, and federal levels revealed a lack of understanding at each jurisdictional level of the limits and capacities of the other jurisdictions in this extraordinary event. Given this lack of a “common operating picture,” Katrina escalated from a severe hurricane into a catastrophic event, as agencies and jurisdictions struggled to comprehend the scope of the damage and marshal a response to protect lives and property. The sobering realization came to thoughtful observers that the hurricane was only a triggering event; the catastrophe in New Orleans and other communities on the Gulf Coast was largely man-made (Comfort, 2005).

Comfort presents another human-made element—of difficulties in coordinating across multiple jurisdictions.

Crises of human flight and large displaced populations are also common in complex disasters. In the case of Katrina, the displaced numbered well over 1.5 million, the largest refugee crisis and relocation effort in American history (Hoffpauir & Woodruff, 2008). The Hurricane Katrina Community Advisory Group (2006) reported that about three-quarters of New Orleans evacuated, but not all who needed to evacuate were able to leave: More than 100,000 people failed to evacuate from dangerous areas in New Orleans, disproportionately low-income and African American (Brodie, et al., 2006).

In their study of the effectiveness of the evacuation, *Incrementalism before the Storm: Network Performance for the Evacuation of New Orleans*, Keifer and Montjoy, present two-tiers of ability to evacuate:

There are two stories here. One is the relatively successful organization of traffic flow for the great majority of residents - those who left by their own means. The other is the widely publicized failure to move or adequately shelter those who lacked the means or chose not to evacuate. The lack of adequate planning for this stationary population was compounded by the failure of communications systems during the crisis (Kiefer and Montjoy, 2006).

The “failure of communications systems” included a markedly social dimension as evacuation orders were not executed uniformly by all residents of New Orleans. The evacuation orders did not penetrate equally at higher levels of social exclusion. Poverty, social exclusion and race were found to be major correlates of the decision to remain in one’s home. A study of motivations for African-Americans who chose not to evacuate found four predominant themes: perceived susceptibility, including optimism about the outcome because of riding out past hurricanes at home and religious faith; perceived severity of the hurricane because of inconsistent evacuation orders; barriers because of financial constraints and neighborhood crime; and perceived racism and inequities (Elder, 2007).

The final report by the Joint National Academy of Engineering and National Research Council (NAE/NRC) Committee on the New Orleans Hurricane Protection Projects described the limitations of the evacuation plan:

The pre-Katrina warning and evacuation plans and measures for New Orleans and southeastern Louisiana were extensive. There were ongoing media announcements for days before Katrina made landfall, weather forecasters tracked the storm carefully and their forecasts were reasonably accurate, and extensive efforts were made to warn residents of the approaching storm. There were road signs and flyovers that allowed for large volumes of traffic to move in one direction, and a very large percentage of the population was successfully evacuated out of New Orleans and to other communities. Despite the best efforts of city and state officials, police and fire departments and other public safety personnel, and many others, however, the collective plans and efforts were inadequate to safely evacuate all residents, especially the sick, poor, and elderly (IPET, 2009).

At least 25 per cent of citizens, disproportionately poor, did not have a private source of transportation. Low-income and disabled people had by far the most difficulty evacuating (Brodie, et al., 2006).

Many who remained were required to wait for more than a week for rescue and access to food and potable water as plans failed to deploy adequate search and rescue teams emergency

medical providers in boats and helicopters. Brodie et al. found that communication was not effective or adequate to coordinate the evacuation plans nor the rescue, and that low-income areas suffered especially from reduced information for achieving safety, and flight.

Low-income and marginalized inhabitants with smaller social networks were less likely to have a place to stay or financial ability to successfully evacuate. Others were unwilling to evacuate. This finding is common in disasters and well documented in disaster research. Prior research on disaster sociology shows that, contrary to myth, people in storm areas are often quite hesitant to evacuate (Auf der Heide, 1989) and “If a storm warning is at all vague, people will underestimate the threat and be less likely to heed evacuation orders.” (Brodie, et al., p.1402, 2006).

The recovery period was complicated by pre-existing socioeconomic conditions, as disadvantages among already vulnerable populations demarcated by race and class increased further. Losses by the housing sector led to rental increases of up to 200 per cent, unaffordable to many (Copeland 2006; Scurfield, 2006). New Orleans had poverty rates of greater than 30 percent making it one of the poorest cities in the United States. In 2005, Richard Wolf reported that Orleans Parish, the New Orleans county, had a poverty rate of 24.5 percent – the sixth-poorest county in the United States (Wolf, 2006). These factors manifested themselves in the context of a broader political and administrative void, discussed in the next section.

3.3.2 Challenging Policy Context

Gaps in the provision of governance came to characterize the outcome and recovery from Hurricane Katrina, but it is important to note that these deficits were already present. Policy

analysts noted problems with local governance in New Orleans well before the Hurricane made landfall. A proliferation of issue-based political coalitions had difficulty providing broader political vision and adaptive leadership, as they had been formed around single issues. Some scholars believe this style of politics by coalition is often unstable as coalition members do not always share a broader agenda. Policy analyst Peter Burns studied governance in New Orleans through the rebuilding process. He described three pre-existing problems that prevented timely disaster response from the municipal political environment in New Orleans, (1) lack of agreement between public and private stakeholders in the city on a long term agenda, (2) the formation of temporary political networks around "issue-based coalitions" which contribute to short-lived political visions (518), and (3) the poor coordination with partners and delivery of resources. These three factors inhibited the ability of the government to carry out disaster policies (Burns & Thomas, 2006).

Hurricane Katrina left New Orleans without effective government. David Ink's analysis of the White House report on Hurricane Katrina and the House Select committee found that the Federal Emergency Management Agency (FEMA) did not provide the necessary leadership, response or coordination (Ink, 2006). Although the fault for this deficit in coordination is commonly attributed to FEMA at the federal level, others have considered criticism of FEMA in the broader context in which the organization operates. FEMA is itself intended to coordinate a diverse body of organizations—both federal and nonprofit alike—to fill the void left when disasters incapacitate local and then state governments. Policy analyst John Morris points out that the agency itself suffered from high turnover of leadership and changing status within the hierarchy of American federalism, where it was granted independence from 1979 until 2003 when it was incorporated into the Department of Homeland Security (DHS) (Morris, 2006). With

these changes came continual reconfiguration of its organizational mission, modifications ordered through Congress. FEMA found itself sandwiched between layers of government with different roles, interests, and incentive structures. Such pressures led Morris to write that: “much of the dysfunction of FEMA is not the fault of the agency but rather the result of years of being a political ‘football.’” (292) The failure of response to Hurricane Katrina was thus not attributable to any one single official, but a systems failure in an environment with insufficient coordination with lower level actors.

In this policy context, lower level actors came to the fore as a critical source of aid. In many cases, the vacuum in governance was filled by the community sector:

In addition to the limitations of government and the lack of a regime capable of governing, these examples reveal that churches, nonprofit organizations, and other community-based groups endeavor[ed] to assume the governing slack in the city, and that they tr[ie]d to create issue-based coalitions to deal with specific problems (Burns & Thomas, p. 522, 2006)

Survivors of this disaster experienced a more reduced governmental presence than usual and an accompanying administrative vacuum. In New Orleans, the municipal response was deemed disorganized or “chaotic” by several scholars. For example, the municipal government never responded to an offer by Amtrak to use its trains to evacuate survivors from Hurricane Katrina, nor did it set up a planned ride share carpool system with the Red Cross designed precisely to help people evacuate in hurricanes (Roberts, 2005; Russell, 2005; Burns & Thomas, 2006). Considering such deficits in coordination, these problems were likely not the result of any one official, but largely systemic in nature.

Pyles (2007) noted that the community aspect of disaster response was crucial in the case of Katrina:

In the wake of the devastating flooding that followed Hurricane Katrina in New Orleans in August 2005, **community organization abounds**. Individuals have mobilized around issues such as the right to return, access to housing, neighborhood planning, economic development and many other issues essential to socially just communities (Axel-Lute, 2006). Some of this organizing involves addressing and transforming racial and class inequities. To undertake these social development processes, new grassroots efforts have emerged, neighborhood associations have been revitalized and national and international non-governmental organizations (NGOs) have appeared on the scene (Pyles, 2007). However, despite their importance, local community processes were not immune to the administrative difficulties that plagued federal and state agencies. Lein et al.'s (2009) report on community processes after Hurricane Katrina stresses that the successes of the community response were inhibited by lack of coordination as well:

However, during the prolonged evacuation following Katrina, displaced families and local service providers assisting them lacked both information about local and federal sources of disaster assistance and the higher-level coordination of these services... Local agencies also lacked the capacity for a coordinated and adequate response to longer-term needs, including needs for low-income housing, public transportation, and access to health care (450).

The community sector required information, coordination and leadership that was difficult to generate internally. In addition to understanding the political leadership needed, these deficits highlight the importance of understanding the role of workers on the ground and their efforts to attempt to fill gaps in assistance. It is for this reason that a direct examination of actions taken by professionals on the ground is merited, to examine how local professionals adapted to these deficits, gaps and challenges without sufficient outside assistance. In the social work context, this entails an examination of the actions of social workers. It is for these reasons that Hurricane Katrina was selected as a disaster case; the inordinately high volume of published peer-reviewed material, its parallels with multiple facets of the “complex disaster” schema in the Western context that meets my research questions, and the presence of social worker activity in the literature (see section 3.4), all render it a disaster of the kind that addresses my research question.

Perhaps with further research, practice development, and education it will be possible in future events to fill these gaps in assistance. The next sections will describe how these accounts were obtained from the literature and analyzed.

3.4 Method of selection of literature

The study design selected was a review of a disaster case. Although a field study would have been more direct, and less subject to publication bias, theoretical analysis of case literature is often a staple in disaster research because field study designs are often unfeasible to carry out in practice and sometimes difficult to justify ethically given the immediate humanitarian needs of a disaster context (NASW 2005b). Moreover, this research inquiry requires a disaster where the community specifically takes on a central role because of the limited abilities of government agencies and emergency management to stem the crisis. Justification for the study of Hurricane Katrina is given in 3.3, 3.3.1, and 3.3.2.

The review method was based on the literature review process described in *Essential Research Methods for Social Work*, (Rubin and Babbie, 2009), and the *NHS Centre for Reviews and Disseminations* (University of York, 2001), by utilizing broad searches that are then filtered in iterative stages for relevant content. Databases were selected— Social Work Abstracts, Proquest, JSTOR, Sage, the McGill and University of British Columbia Catalogues and Medline/Pub Med, and searched using keywords “(hurricane) Katrina” and “social work(er)” and within the timeframe since the 2005 Hurricane Katrina occurred (2005-2010). Articles and books were eligible for systematic review, as well as reports, policy briefings, and conference proceedings. Materials were then selected for systematic review if they contained content

directly related to Hurricane Katrina and included: (i) a record of one or more social worker, or (ii) was written by one or more social workers. The results recovered from the second search were examined for accounts of social worker actions in response to the Hurricane Katrina disaster event and analyzed by social capital theory (Section 3.5). This process resulted in 37 relevant items. The quality of the sources varied; at all times, peer-reviewed sources were prioritized relative to material that was not published in peer-reviewed journals, however, news copy, community publications, and other “grey literature” was used where necessary, if they presented a description of a unique event, or possessed unique descriptive value. Grey literature is susceptible to inaccuracies, so documents were crosschecked where possible with other accounts. The results from the second search were then examined for content through the categories of analysis discussed in the next section – social capital theory.

3.5 Social Capital Theory – Did social workers engage in *bonding, bridging, and linking*?

The *social capital* theory of social networks (Putnam, 2000) is well studied and has been used in prior research on disaster social work to analyze the behaviours of civilians as they attempted to build and sustain social capital during Hurricane Katrina (Hawkins and Maurer, 2009; Pyles, 2007). Social Capital theory was selected for several reasons. Firstly, because it has been previously applied by social work researchers (Hawkins and Maurer 2009), to analyze accounts of behaviour of residents (though not social workers) during Hurricane Katrina and its recovery, as well as to analyze the behaviour of social workers during disaster (though not Hurricane Katrina) (Mathbor, 2007). Pyles (2007) also wrote a social work study on building social capital and citizen-led community organization after Hurricane Katrina, but the population she focused on was that of non-professional community residents – not social workers. These

prior studies provide a framework from which to proceed with our research inquiry of social worker action during Hurricane Katrina. However, although social capital is a popular tool for analysis of social networks, it is not without its share of criticism, even from scholars who use social capital in their own work. The utility and robustness of this model will be addressed critically in the findings and the conclusion (Chapters 4 & 5).

Social capital may or may not be useful in a qualitative approach for building theory, and acquiring lessons for further research and practice, and this thesis will apply this question throughout the research inquiry. Social capital has far-reaching concepts, and with the differentiation of social capital into *bonding*, *bridging* and *linking* forms of social capital, this approach is related to social work practice at micro, macro and mezzo levels.

While social capital may undoubtedly be limited in its descriptive power, (as discussed in Chapter 2, and in this section), and presents challenges to operationalize, it does possess three relatively succinct operational criteria in bonding, bridging and linking (Figure 1; Mathbor, 2007). In contrast, the other theoretical approaches considered did not present a framework that is as readily operationalizable, unambiguously defined, and agreed upon in the literature. Moreover, my research inquiry intends to critically appraise social capital in the findings and conclusion.

This section will examine two prior attempts in the literature to apply social capital theory to case studies in disaster social work. It will then define and operationalize social capital theory as it was applied to the case study. Mathbor (2007) looks specifically at the role of social work in building social capital in disaster response after cyclones in coastal Bangladesh. Through interviews, he observed examples of bonding, bridging, and linking behaviours and discussed the future implications for community preparedness. However he did not study the case of Hurricane

Katrina, and specifically pointed out the importance of doing so:

[B]onds, bridges and links...were evident in the post-Katrina commentary in the USA. A crucial weakness in this was the lack of well-coordinated preparedness, including the human service professions, at the grassroots level. Therefore, there is a need for some persuasive work in formulating policy directives that will emphasize community collaboration, solidarity, coordination and utilization of social networks as a vehicle for effective service delivery before, during and after a disaster (361).

Moreover, social capital theory has been previously applied to the specific case of Hurricane Katrina (Hawkins and Maurer 2009), but has not been applied to the behaviour of social workers during Hurricane Katrina. Hawkins and Maurer (2009) are two social work scholars who also examined the role of social capital in Katrina, again focusing on the role of civilians. In their study *Bonding, Bridging and Linking: How social capital operated in New Orleans following Katrina*, they interviewed residents and applied a qualitative grounded theory methodology to analyze the evidence of social capital building in actions that the residents described. Hawkins and Maurer (2009), evaluate the qualitative statements collected from residents, and examined whether civilians demonstrated bonding, bridging and linking behavior. They argue that residents built all three kinds of social capital—bonding, bridging, and linking in their interactions with one another. They classify their findings by type of social capital (bonding, bridging and linking) and provide examples of statements to serve as supporting evidence of each.

As they expected, the building of *bonding* capital was a *homophilous* act (directed at individuals within the same group), whereas bridging and linking, were often observed in a *heterophilous* fashion (directed at individuals outside their group). Although Bonding was more common, heterophilous bridging and linking was of very important social value, despite being less common: “Nearly all participants benefited from some kind of homophilous bonding social capital that either helped them to safety or they assisted others within their

network...heterophilous bridging social capital played an important role as well. People gave and received assistance across racial and socio-economic lines. There were examples of linking social capital in which those in power not only helped, but used their connections and relative advantage to assist.” (7)

However, they only examined statements and behaviours of *civilian residents*— my research seeks to apply these concepts to understand actions taken by social workers to build social capital. Therefore, a framework already exists in the literature for this theory to be extended to study the behaviour of social workers during Hurricane Katrina. Moreover, with its criteria of bonding, bridging, and linking, social capital theory offers a succinct framework for examining and categorizing the actions taken towards community building during disaster. Nevertheless, social capital theory will be adopted critically, and in the findings, I will discuss the extent to which social capital theory offered descriptive power for this context.

In this study (see Chapter 4 for Findings), reports of action taken by a social worker were reviewed using two definitions of bonding, bridging & linking, a broad definition by the World Bank, and a precise definition in the disaster social work context as defined by Mathbor (2007). Results were analyzed for evidence of these three concepts. Evidence of bonding bridging and linking were described in the findings (Chapter 4).

The World Bank, which uses social capital theory in qualitative studies (Woolcock, 2002) has a set of broad and open definitions for bonding, bridging and linking. Bonding is described as homophilous connections; “connections to people ‘like you’ – similar to, but not synonymous with, ‘strong ties’.” Bonding is “associated with survival—‘getting by’ (Woolcock, 2002).” Bridging is described as heterophilous connections; “connections to people ‘not like you’ – (similar to, but not synonymous with, ‘weak ties’).” Bridging is “associated with

mobility—'getting ahead'" (Woolcock, 2002). Linking is described as political connections; "connections to people in positions of power, used to leverage resources," and as "access to banks, courts [...]"(Woolcock, 2002).

Mathbor (2007) formulated the concepts of bonding, bridging and linking in the context of social work research on disasters as follows:

Bonding – Relationships and support at the individual level, including psychological and social supports; **Bridging** – Reaching out to other communities in the society; coalition formation.; **Linking** – Linking communities to public or private institutions (e.g. government agencies or businesses).

As described above, the results recovered from the second search were examined to verify that they contained accounts of actions taken by social workers in response to Hurricane Katrina. Though the quality of the sources varied, sources from peer-reviewed publications were preferred over unreviewed documents. Newsmedia and other "grey literature" were used where necessary and corroborated using other sources where available

This methodology has several limitations. Unlike the participant interviews done by Hawkins and Maurer (2009) with nonprofessional civilian survivors of Hurricane Katrina, analysis of the literature in a case study is a method that is subject to publication bias. Only those authors intent on writing and publishing will be included. Moreover, while the source material was reviewed extensively, because of the unusually high volume of material published on Hurricane Katrina, the author acknowledges the likelihood that not all relevant material was found. Other limitations, as described by the U.S. National Association of Social Workers (NASW), stem from the nature of the topic:

Research on disasters is problematic. Disasters, by nature, are intermittent and arrive unexpectedly, although in some cases with some warning. They require massive recovery

efforts which do not logistically lend themselves to the research process. [...] Only recently, but rarely, are quantitative theory-testing studies reported. Much of the literature concerns case studies, or model descriptions, or auto-ethnographic expressions of personal reactions to lived-through disasters (NASW 2005b).

The source material reports will undoubtedly be compromised by the paucity of quantitative data and the nature of written reports often recalled or transcribed from within a “fog of war” environment. As quantitative empirical investigation into the social networking of social workers at the height of disaster is very difficult to justify ethically, and even more difficult to carry out in practice, the quantitative record is sparse. Moreover, as we are only examining a single case – Hurricane Katrina, our findings will not be generalizable, but rather will be exploratory and provide illustrative lessons.

Ch.4 – Findings.

4.1 Main findings: Social Workers' Role in Building Social Capital in Hurricane Katrina

In the methodology section we described three forms of social capital, bonding, bridging, and linking, and their relation to social capital theory (Woolcock and Sweetser, 2002; Putnam, 1998). This section will provide a synthesis of the findings of some actions taken by social workers through the lens of social capital. The findings will be categorized in three subheadings, Bonding, Bridging and Linking as Hawkins and Maurer did (2009) in the case of Hurricane Katrina for civilian residents. In Section 4.2, the descriptive power and relevancy of these categories will be discussed.

4.1.1 Bonding

As described in Chapter 3, *bonding* social capital is the formation of connections among *homophilous* or “like” groups. Social workers generated bonding social capital in several ways. They frequently helped to unite families in new spaces and clinics that they created in improvised settings. A highly illustrative example is a social worker who collaborated with two other first responders to provide an improvised family centre they started on a docked cruise ship, obtained by FEMA for emergency use (Speier et al., p. 252, 2009). The mission was ambitious:

[T]o help unite families by providing local, easy accessible education for their children now that schools had opened in nearby parishes, provided some respite and day care for stressed families, and provided activity groups for older children so they could play, make friends, and also give their parents some relief and time to themselves. On the boat, supportive interventions were provided. The activities that were set up for children on the boat included a daily 2 h day care center for the children that also provided respite for the

parents, and a weekly activity time with our staff for the older children to play and make new friends (254).

The focus on facilitating a situation for children to make friends and to provide “respite for the parents,” Is a strong example of bonding social capital. The rewards were evident:

We saw smiles on the initially dispirited children’s and parents’ faces as more activities were developed for the children that contributed to greater support and a sense of community. Staff spent much time with children and families, for example, during and after meal times and offered more services and support as needed. Much energy was placed on services enhancing family cohesion. Focus was placed on concerns related to economic uncertainty, need for permanent housing, displacement of families with children in school in other cities where extended family may live or where they evacuated, and other uncertainties continue. While the cruise ships provided housing, food, clothing, and some stability for the lives of the first responders, living on a boat is not home. Seeing homes destroyed and dealing with citizens who return and who see the destruction of their property raises tensions. (254)

The family centre was unable to provide an oasis from issues of anxiety over housing and human flight. Nor was it able to seal itself off from the fray of responses from other disaster workers:

Our team (consisting of psychiatrists, psychologists, and social workers) made contact with many hundreds of NOPD [New Orleans Police Dept.] officers, firefighters, and EMS personnel. Confidentiality was important to them. They described the events of the hurricane and, at times, their sense of futility, the events at the Superdome and Convention Center, the trauma of being unable to achieve security, difficulties in evacuation and being unable to rescue citizens, having to decide in numerous situations who they could save and who would be left to die, being frustrated by the loss of equipment and cars, not having boats to be able to operate in an effective way with the flooding, and having very limited resources and support. They described the long days, inability to shower, continually wet with no change of clothes for days, having limited food and water supplies, and heroic attempts to keep the city safe with little outside and needed support (253).

Despite these limitations, the cruise ship slowly became a common meeting place for many individuals with diverse professional backgrounds, just as the mental health responders came from more than one professional background. Slowly, they were able to coalesce into a community of *rescuers* with common themes:

They described worries about job security (with few citizens in the city, how many police would be needed), limited family economics, separation from families and worries about their children being dispersed, and overall instability and uncertainty. They emphasized

concerns about economic insecurity and, at times, difficulties in negotiating with FEMA and the Red Cross. Some commented that they believed FEMA and others did not care about them. Many officers shared specific concerns... Many complained about feeling very alone without support and guidance during the hurricane and immediate aftermath (253).

Loneliness and frustration were very common themes, and the mental health workers facilitated the sharing of these among a group which was at first immensely concerned with confidentiality:

Four weeks after the hurricane, one evening on the boat when we were talking and someone asked the date, replied, “Every day is the day after the hurricane!” Utilizing psychological first aid allowed them to share their stories of the traumatic events and helped support some sense of stability in their lives despite the continuing stress and uncertainty. On those few occasions when a serious mental health issue was identified or when an officer was feeling desperate, an immediate referral and intervention took place (253).

Though “serious mental health issue[s]” were reportedly as rare, the cruise ship counselors provided an immensely useful *bonding* function, and a forum for mutual support.

Social workers delivered individual therapy and counseling in hurricane-affected areas even when facilities and opportunities to do so were scarce. They sometimes built bonds with individuals at the same time as they were in the process of delivering a service. For example: Social worker Raymond Scurfield (2006) writes in the journal *Traumatology* of an impromptu counseling centre he set up in a spare office. He also wrote of providing “innumerable” moments of counseling outside of any formal setting. Scurfield also took on an additional role as an emergency housing coordinator as well as a counselor, but soon found himself providing counseling as he was assisting with housing—he was unable to keep these roles separate. Therapy was often an informal happening with passer-by on an ad-hoc basis:

Inevitably, many folks will casually mention a personal difficulty they, a family member, friend, or neighbor have been experiencing. And we then, in effect, have an informal mini-counseling or consultation interaction without it ever necessarily being labeled as such. (Scurfield, p. 108, 2006)

This kind of counseling reflects an act of responding to a client population in-context, without need for a formal session. Scurfield described these dual and simultaneous roles as “complementary” often, carried out in the same meeting with a client.

In addition, bonding was also developed by social workers within the field of social work education. At one campus, eight out of 14 Master of Social Work students became homeless. Staff and faculty assisted social work students who often lost jobs and field placements to the storm (Scurfield, 2006).

A common theme in social worker reports from disaster-stricken communities was the personal emotional and psychological impact of their own experience during Katrina, as many had evacuated themselves, or stayed behind to work. To do this, they often utilized their own primary social relationships and depended on their own social networks.

Sandra Reed was a social worker without a place to stay outside of New Orleans, but who managed to evacuate five generations of her family to a cottage in Poplarville, Mississippi. She was offered to stay at a cottage owned by an affluent colleague at her agency (Horne, 2008). This is an example of the transfer of social capital by a social worker from the workplace into her family:

When the family moves, we move en masse...we have an unwritten routine, [the hurricane] it's kind of like Christmas dinner: Everyone knows it's going to happen. Whoever gets a good idea, you notify the family. (34)

Many social workers were forced to evacuate and lost property or a loved one. With these effects came numerous identity conflicts as social workers struggled to reconcile their dual roles as a survivor as well as a helping professional. Their experiences as a survivor often clashed with their professional identity. As we have discussed, complex disasters are not isolated to a single micro-locale, as in the case of a plane crash, but instead produce widespread effects and damage

community life across a larger area. Therefore, they often affect area clinicians as well as clients—both are survivors. In addition to treating others, social workers also formed *bonding* social capital with clients as a mechanism for them to heal themselves. By sharing an experience from the Hurricane and its aftermath, some social workers felt able to give their clients “something with which they can connect” (Boyer p.33, 2008). However, the fear of professional inadequacy in the face of the disaster was a strong motivator to present an emotionally closed visage, and not to bond. As Ellen Boyer from New Orleans described:

As the victim of the storm and the healer to those affected, I grapple with my professional role. Am I the victim or the practitioner? Can I be both? [...]. On my professional seesaw, I contend with allowing transparency. Should I let my clients see that I’m new and I’m still learning? What if they see me as unqualified, unable? (Boyer p.33, 2008)

The tension between Boyer’s personal trauma and professional role is a common theme, as there is a conflict between needs and responsibilities during disaster. Overwhelming circumstances may have led to feelings of inadequacy, not least because many social work students found themselves expedited into the field during Hurricane Katrina before graduating (Scurfield, 2006; Boyer 2008) Performing social work while immersed in traumatizing conditions can be challenging for these reasons.

It has been documented that professionals exposed to trauma as civilians as well as professionals are more likely to experience posttraumatic psychiatric symptoms than those who only experience the trauma as either one (Luce et al., 2002). This finding was also found by Leitch, Vanslyke, & Allen (2009) in social workers from Katrina.

It is not unusual for social workers facing self-doubt in their professional capacity to wonder if it would not be better to reduce the transparency of those feelings and “close oneself off” from clients (Miehls, 2001; Boyer, 2008).

Nevertheless, Boyer ultimately concludes that a transparent connection is preferable to opaque fortitude, and opted to focus on forming a connection with clients:

Allowing them into my human side is not admitting defeat; right now, defeat is all they are feeling. They need this to identify with me. They need something with which they can connect. Allowing them to have this allows our relationship to commence. (Boyer p.33, 2008)

In this case, forming bonds with clients to share the experience allowed mutual identification between practitioner and client.

4.1.2 Bridging.

To build *bridging* social capital is to form or strengthen social bonds between heterophilous (“unlike”) communities, such as between an individual and a member of a different community, or between communities, for example through outreach or community dialogue. Social workers were found to have made linkages between different geographic communities, for example between the evacuated residents of New Orleans and the cities in which they sought asylum.

Examples of bridging social capital were found, but these behaviours could be inhibited by scarce opportunities or resources, as well prejudices held by social workers towards members of other communities. Bridging social capital was often built by social workers with resettled populations, as they were required to help evacuees adjust to a new community. Those survivors who evacuated and were resettled often had to cope with stark changes in their new locations, often improvements from the rampant poverty of New Orleans. Horne (2008) reports how students from New Orleans exposed to new school environments in Texas even used the opportunity to improve their academic and social skills with the help of support staff. Social

worker Katina Henderson assisted with the resettlement of children from New Orleans into a Texas school (Horne, 2008). The new students often struggled to keep from failing in their new curriculum and failing to cope in their new social environment. She also reported having to help students' parents to fill out forms as many were themselves illiterate. She recalled that survivors from Louisiana who evacuated to other states were often intimidated by what they saw there (Horne, p.193, 2008). The considerably better infrastructure in the new school was apparent, and illuminated some of the inequities that existed in New Orleans prior to the hurricane. Evacuee schoolchildren re-assigned to schools in Texas were shocked to find toilet paper and working toilets in the bathrooms, which, and which were apparently free of "loiterers, toughs and juvenile drug dealers" (Horne, p. 193, 2008). The corridors were evidently "actually quiet and orderly, not free-for-alls cruised by incorrigibles while teachers locked themselves in classrooms with more docile students, as was true in New Orleans."

Yet this time spent away from home often produced positive changes in the students. In fact, the teachers in New Orleans would sometimes marvel at the progress that evacuee schoolchildren had made. One teacher named Fern Hanslik exclaimed: "[T]he teachers here [in New Orleans], we wonder, 'What went on down there? What were they doing with those kids? What were you doing with your time'....It's an awful thing to say, but it's almost as if Katrina was a blessing (194)." This work of resettling a small evacuee community into a new town across state lines, into a new education system, and making the best of an undesirable situation was a powerful instance of bridging social capital. Another limit to bridging social capital may have been social workers who were prejudiced against black survivors. Fothergill and Peek (2006) describe prejudiced sentiments from one clinical social worker, who complained that white students, in his view, "tended to have parents that were more involved and would come in

to meetings and were more . . . [pause] How do I want to say this? I don't know, just more agreeable, more willing to change (116).” Bridging social capital across racial communities can be impeded by assumptions and prejudice about clients from other communities.

In Austin, Texas, social workers created a novel emergency shelter system to meet evacuees from the Gulf Coast. In addition to providing networks of shelters, case managers and other service providers provided advocacy, and referrals and resources tailored to the evacuees (Lein, 2009). Austin’s social workers were exposed to a great diversity of communities outside their usual network. *Bridging* social capital was provided in schools, and shelters, and as we shall see, even within New Orleans.

There are cases where *linking* vulnerable populations with government relief agencies was meant to occur, but did not, and all that social workers could do was provide *bridging* social capital. At the Superdome, where stranded survivors who could not evacuate were held. Social workers recalled disorganization and lack of coordination across nonprofit donors, aid agencies, and public health and law enforcement alike.

Sherry Watters was a social worker and a lawyer with the Department of Social Services who volunteered to work at the Superdome (Horne, 2008). Her job was to register the newly homeless into groups; often disabled, she described them as “paralytics, nursing home residents, diabetics, asthmatics...”(50) who were then referred to OPH triage stations to determine needed to go to hospitals. Watters noted that nursing homes often dumped vans full of elderly residents en masse, without staff assistance, and even similar displays by families. She recalled expensive medical equipment left on loading docks while patients went without. In sum, many perceptions of the Superdome were not unlike that of a waystation, where donor and state agencies dropped off supplies, and where custodians of people left their charges, but there was neither the staff,

expertise, nor coordination to get the right assistance to the right person.

Social workers and social service communities also collaborated with other communities of professionals in large scale partnerships as hundreds of community organizations learned to coordinate with other agencies through umbrella organizations. Examples include the Greater New Orleans Disaster Recovery Partnership (GNODRP), which coordinated 90 partner social service agencies, faith-based and secular community organizations across eight parishes in New Orleans. Their mission was to exchange funding and other resources, reduce redundancy, and advocate for policy changes as a coherent unit (De Vita & Kramer, p.47, 2008).

Networks of distribution and mutual aid existed in Mississippi as well, notably the Helping Hands Fund, formed entirely through social and work connections. Recognizing the need to formalize their relief efforts, a staff team from many backgrounds unified under the fund to account for the large volume of donations they had received from diverse sources. They were required to coordinate with donors and concerned businesses:

A furniture company in Wisconsin donated 800 pieces of furniture, mostly bedroom sets, and those were distributed to target groups viewed as particularly needy or deserving, including police, fire fighters, and teachers, the Salvation Army's homeless shelters in Jackson County and Mobile, and another shelter in Louisiana. In the first year, Hope Haven also distributed over \$40,000 in gift cards and cash. When the city pressed to close free food distributions to stimulate local restaurants and businesses, the warehouse served as a distribution point for the local food bank (De Vita & Kramer, p.49, 2008).

The umbrella accounting structure minimized inefficiency and waste relative to the prospect of silo agencies managing separate donations in a decentralized fashion.

The displacement crisis after Hurricane Katrina and the accompanying challenge of resettlement, provided social workers with the opportunity to assist people from other networks within the city, for example people from a higher income bracket than their usual clientele. Jane

Alt was one social worker who reflected on this interweaving of networks:

There are stories upon stories from the strong and dignified residents of the obliterated Lower Ninth Ward, to the bus driver, to a man I met at Café du Monde returning only briefly from Houston, to every business person and resident of New Orleans... While serving in New Orleans, I experienced the whole gamut of human emotions, both my own and those of the residents. I experienced frustration, anger, fear, helplessness, shock, despair, hope, optimism and love. I learned so much from the people I worked with. (1151).

Jane Alt lead a mental health team on a bus after the storm, in a program which took displaced evacuees back to the sites of their former homes and allowed them to take a brief view of the remains of their homes, properties and even bodies of loved ones. The program was hauntingly titled "Look and Leave," and was organized by the City of New Orleans (Alt, 2007).

Alt was exposed to new neighbourhoods she had not experienced before:

In my role as a social worker, I participated in a program called "Look and Leave."... The project was designed to provide residents of the Lower Ninth Ward, who had been scattered over forty-eight states, an opportunity to return to view their homes for the first time since they fled Hurricane Katrina and/or the flooding it caused. I was a member of a mental health team that began the first day with a bus trip through the neighborhood, and we were all devastated by what we saw. I remember feeling physically sick to my stomach after viewing the remains of the community... While accompanying residents on the bus trips, I had the feeling of being with family members when they went to view, for the first time, the remains of a deceased member of the family. As one team member commented, "This is the longest funeral I have ever attended." The climate of each bus ride was different. Some trips were made in a somber silence. On other trips the residents tried to fit a puzzle back together: "Where did the Robinsons' house go?" "What happened to Miss Lacy's house . . . ?" One man, with a sense of humor, asked the bus driver to stop so he could recover only one item from his property: it was the Brinks Protection sign standing on his front lawn. Everyone on the bus had a good laugh about that moment. Otherwise, I kept hearing the word "gone" repeated over and over. There was also weeping and quiet singing, perhaps the beginnings of new gospel hymns. By the end of the two weeks and over thirty bus trips, I felt as if I had a fairly good sense of the neighborhood, its history and its residents. (1149)

The disaster was in some ways an opportunity for Alt's exposure to different and unfamiliar facets of the city and to form novel connections.

The development of *bridging* social capital also occurred in the context of social work

research. Social workers with the St Bernard Health Center liaised with leaders of different communities, parishes and neighbourhoods to study the needs of the community in a process called community-based participatory research:

The community-based participatory research (CBPR) approach was used ...to engage partners from the St. Bernard Parish community in all phases of the research process with a shared goal of producing knowledge that would translate into action or positive social change for the community... Discussions with community leaders generated community support, as well as program input into research questions and design, and helped to establish the needs assessment within the appropriate community contexts (Roberts et al., 11, 2010).

The collaboration with many community stakeholders yielded common suggestions across communities, and changed the way the research was conducted:

As this was a bottom-up research program they consulted with community leaders to obtain input, and this affected the way they collected their data. For example “The [use of the] full [self-reported instruments] were not recommended by community residents at the time of the needs assessment given the time and burden that these instruments would have posed on this vulnerable population, particularly in light of the fact that mental health resources were limited relative to the high need for mental health services (12).

In this way, a research study linked social workers to community partners, and communities to one another, while accommodations were made by the social workers to the needs of the communities in the disaster context. This recognition of values— that communities ought not to be expected to provide more in research utility than they receive in mental health services is an example of *bridging* social capital in the social work context.

Fewer examples of bridging than bonding social capital were found in the articles reviewed, but this may be explained by a number of factors. It is possible that these behaviours were made less possible because social workers in these local areas so adversely affected by Katrina may have had few contacts or opportunities to form bridges with outside communities. Residents and social workers may have had fewer resources to invest in bridging behaviours. Racial prejudices held by local residents, as well as those held by social workers towards

members of other communities – may well have inhibited bridging to unfamiliar people and communities.

4.1.3 Linking

Linking social capital was often found to be very difficult to build. While bridging connects members of heterophilous (‘unlike’) communities, *Linking* social capital connects groups or communities to a larger formal organization or public institution. Social workers built *linking* social capital by liaising with FEMA’s housing bureaucracy and distributing housing aid into the community for groups of homeless evacuees. Scurfield (2006), collected and maintained databases of who needed housing, and determined where proper sites existed in the community to place FEMA trailers for the homeless. He also selected sites that still remained on higher ground for temporary housing such as an abandoned school.

However, the difficulties in providing *linking* social capital were considerable. Scurfield found it difficult to obtain up to date information from FEMA (107). In addition FEMA lost track of his applications. However, Scurfield argues that their intentions were largely positive, though carrying out these intentions were often frustrated by organizational and structural impairments:

Individual federal and other disaster relief employees and volunteers from national relief organizations typically were very friendly and well intentioned. Many have appreciated that which they did receive. However, the challenges of attempting to respond to such unprecedented (in the United States) numbers of storm survivors were immense, and many survivors found much to complain about, to include the labyrinth of bureaucracy to be navigated that was almost impenetrable and that the disaster relief resources were overwhelmed (Scurfield, p,107, 2006).

These frustrations traveled deeply into the community which could be heard to demonize the

embattled federal agency where new and pejorative uses for the FEMA acronym were developed (Scurfield, 2006). Because of the structural, jurisdictional, and logistical complexities associated with aid bureaucracies, *linking* social capital can often be weak when state agencies have decreased ability to reach survivors.

Social workers tended to evacuate children from New Orleans to many different cities. This often resulted in service provision across black, white, and Jewish communities. For example: Social workers at the Jewish Children's Bureau in Chicago opened a new "Katrina branch" to help accommodate the 10,000 evacuees in Chicago (Rowell, 2007). From these resettlement areas there were often opportunities for *linking* to federal agencies. For example, FEMA provided a city-wide forum asking evacuees what priorities they wanted to see in the reconstruction effort. These meetings had to be coordinated with the community organizations involved in resettlement. (Rowell, p.1440, 2007.) This example indicated that *bridging* and *linking* were not necessarily distinct coordinating behaviours but are to some extent interrelated processes as social workers assisted people from different communities to liaise with government agencies.

Providing *linking* social capital between a community and an organization often presents challenges. There were reports of nonprofit and state agencies alike who had difficulties in providing assistance to specific cultural and linguistic communities. Brenda Muñiz (2006) writes for a Hispanic community advocacy council, expressing frustration at some bureaucratic processes for stalling the access of Spanish-speaking aid workers from reaching Katrina evacuees from the Latino community:

Patricia Fennell, Executive Director of the Latino Economic Development Corporation (LEDC) – a United Way volunteer agency in Oklahoma City and NCLR affiliate – received a call from an ARC volunteer in Tulsa about some Spanish-speaking Latino evacuees being sheltered at a military base near Muskogee, Oklahoma, which is in a

remote, rural area. Ms. Fennel was told that many of the evacuees were Spanish-dominant and had difficulty communicating with Red Cross volunteers. Ms. Fennell, a professional social worker, contacted the Red Cross office in Tulsa to offer her services and was told that she would not be allowed to assist the evacuees until she completed “diversity training” – no exceptions.

Furthermore, she was warned that upon completion of diversity training, she would not be allowed to assist the Latino families because that could be perceived as discriminatory. Ms. Fennell explained that her intention was not to discriminate or withhold assistance from other survivors but that, given the Red Cross’s inability to serve these particular evacuees, she could be of special service to them. After five days, Ms. Fennell was finally allowed to accompany Red Cross officials from Tulsa to the shelter, but when she arrived, out of the 40 Latinos originally placed at the shelter, only one couple remained. Even more disturbing was that a Latino staying at the shelter had been missing for the past three days. Because the shelter was in a remote part of the state with no public transportation, opportunities to leave were very limited, making the man’s disappearance all the more troubling. Ms. Fennell’s story illustrates the following problems with ARC’s interaction with Latinos in the days and weeks after Hurricane Katrina (Muñiz, p. 9-10, 2006)

Part of the challenge in such relationships is an organizational structure with a central contact to be reachable for community agencies like the Latino Economic Development Corporation, and ensuring that leadership throughout the organizations are clear on policy and practice when it comes to building *linking* social capital with diverse community groups (Muñiz, 2006).

However, successes in providing *linking* social capital did occur as well. A social worker collaborated with the chief of a U.S. naval battalion to find temporary space for the Division of Family and Children’s Services for Mississippi, which had seen its headquarters destroyed in the hurricane. The naval chief, with 200 Seabees under his command had rebuilt a destroyed shelter in Waveland Mississippi for neglected and abused children, but found the facility underused as the children had been evacuated to higher ground. The social worker discovered the available space serendipitously, and soon the entire Division of Family and Children’s Services moved in. Each had learned about the other’s need when the Navy chief was complaining about the paucity of social services, and the social worker expressed the need for a new location for the Division (De Vita & Kramer, 2008) (49). This illustrates that social networking and cross-sector ties were

crucial for delivery of relief and continuity of community structures in a disorganized post-disaster environment. These connections link available resources with unmet needs.

In another case of successful *linking*, two social workers and a psychologist collaborated with the United States Public Health Service (USPHS), to help St Bernard parish in Louisiana make it a policy priority to restore medical and mental health services to the parish as part of its rebuilding program (Mitchell et al., 2008). They took 150 patients and clients and founded the St Bernard Clinic. There were many difficulties at first:

Some of the lessons learned were logistical and practical. For example, volunteering under such catastrophic conditions, food availability and options, living quarters, work conditions, and long work hours were not ideal. E-mail access and cell phone connectivity were also limited. Furthermore, going from a nonaffected area to a region that was completely devastated was equally as difficult as going from devastation to “life as normal.” (Mitchell et al., p. 74, 2008)

Though it was formed in the aftermath of Katrina, the need for this service is still ongoing, and even in 2008 it was noted:

[T]he current mental health clinic has a 6-week waiting list, and only 20% of the survey sample has received mental health counseling, although therapy was indicated for a much higher percentage of patients. The dearth of mental health resources may warrant the support, incentivizing, recruitment, and collaboration of professionals across private and public sectors to meet the ongoing psychological and psychiatric needs of residents. (74-75)

Linking social capital was difficult for social workers to build, though there is evidence of it in some cases. As discussed, successful organizations that were started are in many cases still in existence; they have survived as institutions by taking on new roles and have remained vital to the communities affected by Hurricane Katrina.

4.2 Discussion of findings: The value and limitations of Social Capital Theory

Bonding, *Bridging* and *linking* social capital were built by social workers in several contexts, but some types of social capital were easier to build than others.

Social workers developed *bonding* social capital between themselves and their clients, between networks of rescuers, with colleagues, and like most nonprofessionals, built social capital within their own families and personal networks. Social workers frequently bonded within the profession (Horne, 2008; Scurfield, 2006). However, the utility of these terms was not always clear—for example, the formation of connections across professional lines in the improvised clinic on the docked cruise ship (Speier, 2009) was categorized under ‘bonding,’ but this could be alternatively construed as ‘bridging,’ since the professional identities were different. Therefore the categorizations are to some extent ambiguous.

Bridging social capital was generated across geographic distances where evacuees were temporarily housed or resettled, in new school environments, and across cultural and other community divisions. Bridging social capital was sometimes provided in lieu of linking social capital where sources of government assistance were limited (Horne, 2008; Alt, 2007). Bridging social capital however, could be compromised where social workers were ambivalent about a heterophilous “unlike” community or, held discriminatory prejudices in their work (Fothergill and Peek, 2006).

Linking social capital was the most difficult to provide, as it required liaising with administrative bureaucracies which may have been unresponsive. However, in limited cases it was observed between vulnerable populations, clinics, military, state & federal agencies, faith-based and other community organizations. Bridging and linking were usually built concurrently,

as people of different faiths and backgrounds were required to seek aid from government sources at the same time (Rowell, 2007). These overlaps bring into question the integrity of the concepts of bridging and linking and their application to isolate distinct and separate behaviours.

A key finding, therefore, is that bonding, bridging and linking were not found to be distinct and isolated behaviours, but rather merged on a continuum from micro to macro scales. Often one kind of behaviour occurred simultaneously with another. The three categories were found to be overlapping at times and so events may not fit cleanly into one subheading. For example, as discussed in Section 4.1, both bridging and linking occurred simultaneously at the Jewish Community Bureau in Chicago (Rowell, 2007).

Failure to build social capital could also sometimes occur in two categories at once, complicating the picture. For example, the difficulties in networking Spanish-speaking aid workers promptly for work with the Latino community (Muñiz, 2006), is both a failure of cross-community social capital (bridging) and social capital deriving from access to institutions (linking). Thus, the case elucidated by Muñiz (2006) is complicated by the fact that *linking* social capital was first inhibited by poor *bridging* social capital. It illustrated that attempts at linking marginalized communities to assistance could be impeded by poor bridging capital (for example between white and Hispanic communities) (Muñiz, 2006). This further problematizes the division of social capital into three bonding, bridging and linking categories as these seem to depend upon each other. Nevertheless, the concepts were still meaningful, despite having interdependencies. In this case it is even possible to pinpoint where in the schema of bonding, bridging, and linking that the failure to build social capital occurred with respect to time-order: the failure to build bridging social capital with a community leader in the Hispanic community resulted in reduced linking social capital between that community and a helping institution.

It is important to note that *linking* social capital was in many cases the most important form of social network for impoverished and vulnerable populations, who may not have extensive networks that provided alternative options for housing and other needs. For this reason, evacuees rendered vulnerable by race, class, age and disability were more likely to be forced to interface with government agencies like FEMA to meet their needs. The social workers who helped homeless survivors evacuated to Austin, Texas described this dependency:

The many issues they faced amid the loss of material possessions and social connections, trauma, and forced dislocation made at least some evacuees, particularly those who were already disadvantaged, vulnerable to persistent poverty in the wake of the disaster...In this way, preexisting inequalities of race and class among the evacuees directed them to different sources of assistance, with the most disadvantaged seeking assistance from uncoordinated and overwhelmed federal and state disaster and welfare bureaucracies (Lein et. al, p. 448, 2009).

The social processes by which pre-existing vulnerabilities differentiated survivors of Hurricane Katrina and “directed them to differing sources of assistance,” some of which were already systemically underdeveloped or uncoordinated, helps in part to explain the differences in outcome for the diversity of affected populations.

Ch.5 – Conclusions.

5.1 Implications for social work practice

There are several important implications of these findings for social work practice. Zakour's (2003) prescription that "social workers should educate the community about mutual support, particularly in chronic disasters," is well supported by this thesis (Zakour, p.32, 2003). I believe that social workers can and should act as leaders and educators in the periods *between* crises to prevent and minimize losses, and to clarify the body of shared knowledge that communities hold mutually about local resources, evacuation and contingency plans, as well as sources of support.

My findings also strongly support the need to "develop communication linkages among critical community leaders, both horizontally and vertically" (Zakour, p.32, 2003). My analysis argues that the political failures were less likely the failures of individuals, as they were of systems, networks, and organizations. Social workers should therefore intensify their important work as community mediators, representatives and advocates for populations in need. Moreover, Zakour's advice to connect the horizontal and vertical dimensions in the community resonates strongly with the importance of combining *bonding*, *bridging*, and *linking*, as community-building approaches.

Bonding, bridging and linking may represent viable practice approaches for community development, particularly at smaller scales for individual social workers, though linking social capital was found to be difficult to improve from "the trenches," and often lone workers could only provide bridging capital in lieu of *linking* capital. Social workers are trained to foster connections at micro and mezzo levels, but are also uniquely placed to provide *linking* social capital from their communities to large state and voluntary institutions because of their local

knowledge and embeddedness in the communities in which they reside. However, it is also clear, from numerous bridging attempts with out-of-town evacuees, that social workers need not reside in the disaster-affected region in order to provide assistance. Kulkarni (2008) argues further:

Social workers must enter into effective partnerships with these evacuees that involve empowering individual evacuees and their families, in addition to mobilizing evacuee communities as a whole. In particular, evacuees will benefit from reconfiguring the social networks they relied upon predisaster. These social networks, including family, neighbors, and churches, appear as a key source of strength and resilience for individual evacuees and their communities (Kulkarni, p.417, 2008).

The call to mobilize what Kulkarni terms “evacuee communities” is an important lesson for social workers. In my study, it was found that novel social networks were formed and strengthened in remote locations where evacuees settled and where agencies were headquartered.

Bridging social capital is especially vital, as it is often an available alternative available to linking. However, this requires cultural competency in order to form effective bridges, especially where the social worker is from a heterophilous community. The importance of protecting vulnerable sectors of society requires community knowledge, local expertise and investigation of pre-existing sources of vulnerability:

In the case of Katrina where a majority of evacuees were low-income African Americans from New Orleans, most practitioners should recognize that they are entering into cross-cultural relationships that require suspending assumptions and cultivating a curious, questioning, and open stance. As with any cross-cultural interaction, practitioners must examine their own personal biases and stereotypes and anticipate that evacuees will also have unique cultural beliefs and experiences of oppression...The experience of Katrina survivors taught researchers and practitioners that knowledge of place (in this case, New Orleans) is essential to cultural competence (Kulkarni, p.418, 2008).

Social workers can expect to be required to step outside their comfort zone and interact with a more diverse client base than they were previously accustomed to.

Social workers may also be required to use improvisation to hastily assemble services using scarce means. These findings report that social workers built new services and resurrected old services in abandoned buildings, offices, and on boats.

Improvisation and bricolage are skillsets described by Weick (1993) as critical for disaster response. He also argues that practicing improvisation in drills can improve improvisation in future response, a finding supported empirically by Drabek (2003).

In disaster settings, social workers may be required to use their skills in a “complementary” fashion, as Raymond Scurfield (2006) did, by combining their skillsets and delivering more than one service at a time (e.g. counseling while coordinating housing).

Furthermore, social workers should also combine bonding, bridging and linking, in their work with clients, communities and institutional sources of assistance. This investigation found that bonding, bridging and linking categories were sometimes found to overlap, to depend on each other, and to be inextricably connected. This finding was also reported by Hawkins and Maurer (2009), who recommended that social workers can expect to combine all three behaviours in disaster settings. I concur with this finding. For example, as described in section 4.2, bridging social capital may open up a pathway to improve linking social capital. Therefore, social workers can and should expect to deploy these behaviours in fluid, integrated ways.

The need to coordinate diverse sources of help was paramount, including state, nonprofit and commercial sources. Effective coordination and communication were often the most frustrating aspects of rescue efforts, a common occurrence in disasters (Comfort, 2006).

Finally, self care is a critical resource for social workers to obtain—especially in cases of posttraumatic counseling as social workers may find themselves as the supporter of other rescuers as well as that of nonprofessional civilians (Horne, 2008). As the last source of support

for other professional rescuers, they may find themselves at the end of a long chain of primary and secondary trauma, without any counseling resource of their own. It is vital for social workers to recognize their own human limitations in order to preserve their mental health and be more effective in the assistance of others.

5.2 Implications for policy

What should assistance and rescue services do to enable communities to contribute to better outcomes? Firstly, it is clear from these findings that social workers played an important role in the response, and that this role can be understood, to an extent, by bonding, bridging and linking. These are critical roles in complex disaster situations, and policy should be changed to reflect their importance and support their role. Response teams should include social workers where they do not currently, and social workers should contribute to disaster response planning at central and local levels of government. Social workers can be part of the policymaking process, and draw attention to sources of social capital in the communities in which they work:

[S]ocial workers can help communities identify natural sources of positive social capital as well as sources from the outside. These connections, if used to their maximum benefit, could help individuals, families and communities to survive difficult times and move forwards to establish new communities and connections (Hawkins and Maurer, p. 12-13, 2009).

Local sources of social capital are likely to vary from population to population, and from region to region, and locally embedded social workers are in a pivotal position to enable these untapped resources to be supported for optimal community benefit..

However, if these developments are to succeed, social work education and training must be more inclusive of disaster response as a disciplinary setting, both to improve social worker

competencies in training practice, as well as to raise the profile of disaster response as viable terrain for social work practice.

It is also clear from these findings that social vulnerability matters when considering, and planning for the effects of disaster on communities, and that deficits in the political environment can exacerbate pre-existing vulnerabilities when disaster strikes. Preexisting social inequities can predictably exacerbate the disaster situation, and therefore steps to reduce systemic inequalities in non-disaster periods are likely to improve the prospects of survivors and the efficacy of response, although this may be a difficult prospect. As Kulkarni (2008) summarized in her work, the New Orleans' residents' experiences "call to attention the cost of neglecting physical and social welfare infrastructures of local communities" (Kulkarni, p.419, 2008). Disaster policy and planning should be informed by investigations into the underlying vulnerabilities that precede and exacerbate the effects of disaster events.

Lein (2009) echoes this finding, arguing that efforts at community development must be undertaken by policymakers with an understanding of existing local social networks, and with a broad, community-wide perspective:

In the aftermath of Katrina some have focused on the successes and failures of specific agencies, the public sector, or large-scale philanthropic efforts. However, an exclusive focus on any one component of the network of governmental and nongovernmental organizations on which poor families rely creates an incomplete picture of the complex organizational network and the institutional environment in which administrators and service providers at all levels, as well as impoverished families, operate (Lein et al., p. 455, 2009).

Though there is a tendency to place the blame for failures on high-level political actors, single organizations, or individuals suspended in the focus of media coverage after disaster events, Lein (2009) has argued that disaster response networks are too complex for a single focus or scapegoat to capture a meaningful explanation for events, or to provide a way forward.

In addition, because the systems of disaster response are often so complex, it is often the most marginalized and impoverished communities are forced to waste scarce resources learning how to navigate the network. This is because socially excluded populations do not possess high levels of *linking* social capital with powerful institutions and are thus most dependents on helping agencies:

In addition to relying on formal welfare programs, most poor families draw on a large number of often local nongovernmental organizations, ranging from food pantries to sources of assistance with utilities, to obtain basic necessities and services (Angel & Lein, 2006; Edin & Lein, 1998). Because this system is so complex, impoverished families, and indeed the social workers and other professionals serving them, spend considerable time and energy learning about and tracking policy and programs that are themselves unstable (Lein et al., p. 455, 2009).

Impoverished and marginalized communities are more likely to devote resources to finding government sources of assistance, as they are the most dependent on new sources of *linking* social capital. Drawing on these insights, policy should therefore be designed to be navigated for the long term, in a predictable and consistent way. Policies that result in significant increases to system complexity may come at the expense of less accessible services for the populations that require the most.

As Lein (2009) described above, coordination across political bodies, helping agencies and organizations is vital. Improvements to coordination across organizations, and between organizations and government can help to stem the inefficiencies observed. Failures in interorganizational coordination were evident in this study, and were also a common finding in much of the analysis on Hurricane Katrina:

Administrative failure by governmental agencies and actors—at all levels—has been a major theme in the post-Katrina critique... Collaborative failures are cited such as poor communication, inadequate planning, misguided and poorly executed leadership by the federal and state government, and insufficient coordination with state and local nonprofits, private sector entities, and individuals (Simo and Bies, p.2, 2007).

This study described problems with coordination between helping agencies, government, military and professional organizations. These deficits were evident in the accounts of the Superdome (Chapter 4.1; Horne, 2008) and with FEMA (Chapter 4.1; Scurfield, 2006). Better interorganizational arrangements could facilitate better coordination of resources with other jurisdictions and between different agencies.

As linking social capital was the most difficult to provide from institutions to communities, policies could be introduced at state, city, and agency level to support social workers in their efforts to build and strengthen social capital. Emergency planning should include social workers, if they have not done so. Social workers are uniquely suited to respond to the disaster context in light of their assets in health and mental healthcare delivery, empowerment and self-help perspectives, as well as their embeddedness in local communities and marginalized populations (NASW 2005). This can be useful when planning for the effects that social exclusion and other latent vulnerabilities are likely to have in a population. In the findings of his study on social capital, Mathbor (2007) argued that: “While other professionals have valuable skills for responding to disasters, the social work perspective takes into account the many factors that affect access or lack of access to services and resources” (Mathbor, p. 367, 2007). It is this perspective on vulnerability and accessibility that social workers should cherish foster and remember to share when they are present at the table with other stakeholders.

5.3 Implications for further research

There is a dire need for further social work research on communities in disaster. Because the problem of community-level development after disaster has been particularly targeted as under-researched area (Hawkins and Maurer, 2009; Moyo and Moldovan, 2008; Pyles, 2007) a

stronger focus is needed. In addition, these problems require more attention in the curricula of social work schools, continuing education and job training (Yanay and Benjamin, 2005; Dodds and Nuehring, 1996). The vital topic of community restoration requires more empirical study, pedagogy, perspectives, and interventions in order to meet the needs of future populations in crisis (Zakour, 2003; Dodds and Nuehring, 1996).

The role of professional social work vs. civilian residents

It is important to compare the role played by social workers with that of residents. While this study examined actions by social workers, these same bonding, bridging and linking behaviours were observed by Hawkins and Maurer (2009) in residents after Hurricane Katrina. A comparison allows the question to be asked: how different is the professional role? In one sense, there were similarities in both studies, as civilian residents were often found to play supportive roles as well (Hawkins and Maurer, 2009). Yet the client-therapist relationship was a key difference from the kind of support offered by residents in the 2009 Hawkins and Maurer study. Unlike residents, social workers were often found to utilize formal therapeutic methods in their supportive work, as per their training. Moreover, through the formation of improvised treatment facilities in spare rooms or boats (Speier et al., 2009; Scurfield, 2006), social workers were more likely to resurrect the clinical and ‘storefront’ models of mental health delivery; these improvised settings frequently imitated the helping institutions that they may have worked in prior to the disaster period.

Yet social workers could find it difficult to sustain this division during crisis. Some social worker therapists were found to question the feasibility as well as the ethics of their detachment and impartiality. Attempts at clinical detachment were described by one author as not only

impossible to maintain in the face of mutually experienced trauma, but as ethically difficult, as if these attempts erected an unnecessary barrier between client and therapist (Boyer, 2008). As discussed in Section 4.1.1, social workers were forced to contend with their dual roles as survivor as well as therapist. This problem is important terrain for future research, as professionals who become exposed to trauma in such dual roles may be more likely to experience posttraumatic psychiatric symptoms than those who only experience trauma as a civilian or professional (Luce et al., 2002). Perhaps this role conflict is what prompted social worker Ellen Boyer to ask: “Am I the victim or the practitioner?” (Boyer p.33, 2008).

While this problem may constitute an additional obstacle for social workers in disaster as compared to residents, there are additional opportunities faced by professionals as well. I found considerable opportunities for bridging, as professionals were cast in helping roles with members of disparate communities. Notably, those social workers performing work in intake or housing could be seen interacting with a wide variety of populations (Horne, 2008; Alt, 2007).

On the whole, the theoretical concepts of bonding, bridging and linking demonstrated similar successes and similar failures across the two studies. However, a key difference in our study was that, bonding, bridging and linking exchanges were also performed across the social worker-client divide. Hawkins and Maurer found that homophilous bonding social capital was vital for the residents’ safety, as residents relied upon it to coordinate and execute evacuation plans. This finding was widespread, as “nearly all participants benefited from some kind of homophilous bonding social capital that either helped them to safety or they assisted others within their network” (Hawkins and Maurer, p.7, 2009). My study found that social workers also utilized homophilous networks to rescue themselves as well as others (Horne, 2008). A notable difference is the presence of the professional-client relationship, as social workers could be duty

bound to help others evacuate in the face of their own needs. The role conflicts present in evacuation scenarios is also important terrain for further social work research.

Heterophilous bridging and institutional linking were also exchanged among residents, with aid agencies, and with community organizations. Just as illustrated in this study, Hawkins and Maurer found that “a breakdown in bridging and linking capital... can occur when racial stereotypes become a factor in social capital” (Hawkins and Maurer, p.12, 2009). However, the authors felt that, on the whole, “the study results show that at some point in the process, nearly all study participants benefited from different levels of social capital (12).” As in my study, Hawkins and Maurer (2009) found that higher order exchanges of social capital were most important for low income survivors: “Connections across geographical, social, cultural and economic lines provided access to essential resources for families... This crossing of economic and social lines was especially important for lower-income residents” (13). Bridging and linking networks were evident in the testimony of residents as “participants described a system of bridging and linking social capital exchanges in which people provided and shared information, resources, supplies and food” (9). These same commodities were exchanged by social workers and their clients through bridging and linking networks, however, social workers often found that linking social capital was difficult to provide. The difficulty that social workers faced in this study to provide linking social capital may also be a reflection of different roles and relationships between social workers and their clients. It is also possible that social workers had different expectations for coordination and service provision by assistance and community agencies than residents, as social workers often operate within these sectors. Regardless, it is clear that professional exchanges of social capital are sufficiently different from exchanges among

networks of residents to merit further study in the social work literature. Future work may elucidate findings to help social workers build social capital in the disaster context.

Just as in this study, Hawkins and Maurer (2009) found that bonding, bridging and linking concepts were not always intrinsically sound nor easy to apply, because “the different conceptual types of social capital overlapped at times” (12). The next section will further compare this study with that of Hawkins and Maurer (2009) with particular emphasis on the viability of social capital as an analytic perspective.

Wither social capital?

It is important to consider the particular approach selected in this thesis. Hawkins and Maurer (2009) argued that social capital is at its most useful in a disaster setting, and that this is therefore an important rationale for studying it within this context. Hurricane Katrina, with its attending “complex” elements of preexisting vulnerabilities and fractured political environment increases this importance. In this study, social capital theory was found to have modest but limited explanatory power to shed light on our understanding of community building during this disaster. It was hoped that this theoretical approach would provide an organizing framework to explore this problem, through bonding, bridging and linking. These categories were found to be fluid and overlapping, not distinct and discrete. Though Hawkins and Maurer reported as well that the bonding, bridging and linking categories overlapped at times, they also noted that despite this finding, they were still relevant analytical lenses through which to conduct their examination:

What is essential for social workers in this examination, however, is not just the existence of social capital, but how it operated in individual lives and communities. We see bonding, bridging and linking not as compartmentalized experiences, but as experiences that rely on, build upon and interact with each other. (Hawkins and Maurer, p.13, 2009).

Given my findings, I would have to concur that these categories must not be viewed as compartmentalized. This investigation of social capital in a real world context found that bonding, bridging and linking are often related to one another, and appear occasionally to be dependent upon one another in practice. I believe that future investigations utilizing bonding, bridging, and linking social capital must be considered in light of their interrelatedness. The separation of these three categories may be useful in order to pinpoint the type of social capital that succeeds or fails to facilitate another form of social capital. For example, the account of the difficulties by aid agencies to build *bridging* social capital with Spanish-speaking community leaders in Chapter 4.1, then inhibited the building of *linking* social capital with the Hispanic community of New Orleans (Muñiz, 2006). In this way, the delineation of these three forms of social capital into separate categories is still useful for the social capital approach, as long as their interrelated nature is considered and applied in the analysis. As described in *Implications for practice*, if the best outcomes in community building are to be sought, social workers may have to look towards combining these three forms when building social networks.

Limitations of the research

As discussed in Chapter 3, records of social work actions would only be detected by this study insofar as they exist in the published literature, and insofar as the actors are identified as social workers. This form of publication bias is undoubtedly affected by issues of authorship, and the likelihood that studies with positive results are more likely to be published than studies with negative results. Several methodological problems were also revealed in this attempt to apply social capital theory to accounts of Katrina found in the literature on the subject. Social capital may be useful framework for considering micro, mezzo, and macro contexts as a continuum with

connecting behaviours. Although it helps to analyze the facilitation of connections, it has several limitations as discussed in the Theories section.

In addition to being difficult to measure and insensitive to some cultural and historical factors as Pyles (2007) argued (Chapter 2), I have also found that the bonding, bridging, and linking categories are ambiguous, and are difficult to distinguish in practice. Bridging and linking were often found to occur in the same setting. In some cases they were dependent on each other—efficient linking required effective bridging across communities first.

The use of a secondary review and a single case study compromised the validity and reliability of these findings. Future researchers may prefer to establish mechanisms of improving social networks in community development across disaster cases, and with the use of primary data where possible.

Another limitation is that social capital is in itself *value-blind*, and it may not always lead to ethical outcomes. For example— it assumes that building social capital is an inherently positive development, but is it possible that higher social capital could result in a *less prosocial* outcome for a given community? Aldrich and Crook (2008) argue that it can— that social capital building can be deployed to produce discriminatory results because the effects of social capital depend on their effects in context. Studying the political process of choosing locations of trailer parks for homeless in New Orleans after Hurricane Katrina, Aldrich and Crook (2008) found that:

[A]reas which displayed greater levels of social capital, as evidenced by voluntaristic activities such as voting, were slated for fewer trailers, controlling for race, income, education, flood damage, and other relevant factors. Civil society worked simultaneously to bring citizens together while mobilizing them against the threat of trailer parks in their backyards (379).

This example shows how local social capital can be deployed to further exacerbate systemic race and class discrimination. For this reason, understanding the social and political context of a community, and the existing disparities in socioeconomic class and race are vital to consider in evaluating the value of social capital. Hawkins and Maurer (2009) agreed, and stressed that social workers must strive both to increase social capital, while differentiating useful from harmful types:

One challenge for social workers is how to maximise social capital, while distinguishing positive from negative or counter productive social capital. Social work practitioners and researchers need to further explore definitions and operationalisation of social capital to better understand how it affects individuals and communities as a whole. Disaster response training, research and practice commonly focus on individual mental health (trauma) and psychosocial interventions, rather than community development, to reduce vulnerabilities arising from social inequalities that often exacerbate the impact of a disaster (Hawkins and Maurer, p.14, 2009)

For Hawkins and Maurer, further investigation into community development in disaster-affected areas is necessary as a research program to shorten this gap. Social work investigators should continue to research these phenomena and social work practitioners are advised to remember that they are uniquely placed to ensure that these essential ethical values are considered during research advocacy and practice, so that social capital building ultimately results in ethical outcomes.

Why continue to study disasters? Some authors suggest that the study of disasters is not merely important for understanding the disaster context. Disasters provide a rich setting in which to study the potential for collaboration among human beings during times of duress. Robert Stallings offers a suggestion that the question may have two answers:

Why study disasters at all? One answer is obvious: To improve our understanding of these calamitous events in order to minimize what we see as their undesirable consequences. Beyond this practical justification, however, there is an important disciplinary reason for studying disasters. Disasters provide opportunities to examine aspects of social structures and processes that are hidden in everyday affairs ... Kreps (1984:310) made this point central to his review of research in the field: "Disaster studies

provide rich data for addressing basic questions about social organization—its origins, adaptive capacities, and survival. (Stallings, p.283, 2004)

This unique look into the “social structures and processes that are hidden in everyday affairs,” are an added and often intangible benefit that derives from the study of disasters. Disasters may not simply represent everyday crises writ large, but they do provide an inspirational glimpse into the cooperative potential that individuals, groups, and communities possess, even in difficult circumstances. By exploding numerous ‘disaster myths’ about human behaviour during disaster (see Chapter 1), the disaster sociologists have reminded us that disasters can often bring out the best in human beings (Auf der Heide, 1989). Further research on these events will allow investigators and those who study their findings to imagine new possibilities for human organization, collaboration and mutual aid.

BIBLIOGRAPHY

- Aguilera DC, Messick JM., (1986) *Crisis Intervention Theory and Methodology* 5th edition. C V Mosby, St Louis.
- Aguilera, D. (1998). *Crisis intervention: Theory and methodology* (8th ed.). St. Louis, MO: Mosby. American Psychological Association.
- Ahmed, R., Seedat, M., van Niekerk, A., & Bulbulia, S. (2004). Discerning community resilience in disadvantaged communities in the context of violence and injury prevention. *South African Journal of Psychology*, 34, 386–408.
- Aldrich, D., and Crook, K. (2008). Strong Civil Society as a Double-Edged Sword: Siting Trailers in Post-Katrina New Orleans *Political Research Quarterly* 61: 3, pp. 379-389.
- Allen, K.M. (2006). Community-based disaster preparedness and climate adaptation: local capacity-building in the Philippines, *Disasters*. 30 (1) (2006), pp. 81–101.
- Alt, J.F. (2007). Look and Leave. *Callaloo*. 29(4) 1149-1152
- Auf der Heide, E. (1989) *Disaster Response: Principles of Preparation and Coordination*. Mosby, St Louis, MO.

- Auf der Heide, E. (1996) 'Disaster planning, part II: disaster problems, issues, and challenges identified in the research literature'. *Emergency Medicine Clinics of North America*. 14(2). pp. 453–480.
- Baltes, P. B., Lindenberger, U., & Staudinger, U. M. (1998). Life-span theory in developmental psychology. In W. Damon (Series Ed.) & R.M. Lerner (Vol. Ed.), *Handbook of child psychology: Vol.I. Theoretical models of human development* (5th ed., pp. 1029-1143). New York:Wiley.
- Bankoff, G., Frerks, G., Hilhorst, D. (2004). Mapping Vulnerability: Disasters, Development and People. Earthscan, London . pp. 61–85.
- Berke, P., Kartez, J. and Wenger, D., (1993). Recovery after Disaster: Achieving Sustainable Development, Mitigation and Equity. *Disasters*. 17(2):93-109.
- Birkmann, J., (2006). *Measuring vulnerability to natural hazards*. New York: UNU Press.
- Bolin, R. (1999). Natural disasters. In R. Gist & B. Lubin (Eds.), *Psychosocial aspects of disaster* (pp. 61-85). New York: Wiley.
- Boyer, D. (2008). A Student Social Worker's Reflection of the Self and Professional Identity Following the Impact of Hurricane Katrina on New Orleans. *Traumatology*, (14) 4 p. 32-37
- Bracken, P., Giller, J., and Summerfield, D., (1995). Psychological responses to war and atrocity: The limitations of current concepts, *Social Science & Medicine*, 40(8), pp. 1073–1082.
- Brodie, M., Weltzien, E., Altman, D., Blendon, R., Benson, J. (2006). Experiences of Hurricane Katrina Evacuees in Houston Shelters: Implications for Future Planning, *American Journal of Public Health* 96(8): 1402–1408
- Buckland, J., Rahman M. (1999) 'Community-based management during the 1997 Red River Flood in Canada'. *Disasters*. 23(2). pp. 174–191
- Burkholder, T. and M.J. Toole (1995) Evolution of Complex Disasters. *The Lancet* 346: 1,012–15.
- Burkle FM. (1995) Complex humanitarian emergencies. *Prehospital Disaster Medicine*; 10: 36-56.
- Butts, CT. (2008). "A Relational Event Framework for Social Actions." *Sociological Methodology*. 38(1):155-200.
- Caplan, G. (1961). An approach to community mental health. NY: Grune and Stratton.
- Caplan, G. (1964). Principles of Preventive Psychiatry. Basic Books, New York.

- Coles, E., & Buckle, P. (2004). Developing community resilience as a foundation for effective disaster recovery. *The Australian Journal of Emergency Management*, 19, 6–15.
- Cuny, F. (1983): *Disasters and development*. Oxford: Oxford University Press.
- Dass-Brailsford, P. (2007) A practical approach to trauma: Empowering interventions. Thousand Oaks, CA: Sage.
- Deahl, M. (2000). Psychological debriefing: Controversy and challenge. *Australian and New Zealand Journal of Psychiatry*, 34(6): 929-939.
- Diehl, M. (1999). Self-development in adulthood and aging: The role of critical life events. In C. D. Ryff & V. W. Marshall (Eds.), *The self and society in aging processes* (pp. 150-183). New York: Springer.
- Dodds, S. and E. Nuehring (1996) 'A Primer for Social Work Research on Disaster', in C.L. Streeter and S.A. Murty (eds) *Research on Social Work and Disasters*, pp. 27–56. New York: Haworth Press.
- Drabek, T. E. (2003). Strategies for coordinating disaster responses (Natural Hazards Center Monograph No. 61). Boulder, CO: University of Colorado, Institute of Behavioral Science.
- Dynes, R. (1974). Organized behavior in disaster, Disaster Research Center, University of Delaware, Newark, 1974.
- Eade, D. (1997) *Capacity-Building: An Approach to People-Centred Development*. Oxfam, Oxford.
- Everly Jr., G.S., Flannery Jr., R.B. and Mitchell, J.T., (2000). Critical incident stress management (CISM): A review of the literature. *Aggression and Violent Behavior: A Review Journal* 5, pp. 23–40.
- Flint, C. and Brennan, MA. (2006). The Rural Context of Disaster: Exploring the Role of Community Emergency Response Teams. *Rural Realities*.
- Fullilove, M., & Saul, J. (2006). Rebuilding communities postdisaster in New York. In Y. Neria, R. Gross, R. Marshall, & E. Susser (Eds.), *9/11: Mental health in the wake of terrorist attacks* (pp. 164–177). New York: Cambridge.
- Galambos, C. M. (2005) Natural Disasters: Health and Mental Health Considerations. *Health and Social Work* 30:2 , pp. 83-86.
- Garmezy, N. (1991). Resiliency and vulnerability to adverse developmental outcomes associated with poverty. *American Behavioral Scientist*, 34, 416-430.

- Gergen, K. J., & Gergen, M. M. (1988), Narrative and the self as relationship. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 17-56). New York: Academic Press.
- Gist, R., & Lubin, B. (Eds.). (1999). *Response to disaster: Psychosocial, community, and ecological approaches*. Philadelphia: Brunner/Mazel.
- Godschalk, D. (2003). Urban hazard mitigation: Creating resilient cities. *Natural Hazards Review*, 4, 136–143.
- Goodman R M, Speers M A, Mcleroy K, Fawcett S, Kegler M, Parker E, et al. (1998). Identifying and defining the dimensions of community capacity to provide a base for measurement. *Health Education & Behavior*, 25(3): 258-278.
- Goodyear, E.J. (2000) ‘Challenges to Raise the Capacity of At-risk Populations in Coping with Natural,Social and Economic Disasters’. *Australian Journal of Emergency Management*. 15(3). pp. 25–30.
- Greene, R. R. (2002). *Resiliency: An integrated approach to practice, policy, and research*. Washington, DC: NASW Press.
- Harvey, M. (1996). An ecological view of psychological trauma and trauma recovery. *Journal of Traumatic Stress*, 9, 3–23.
- Hawkins, R. and Maurer, K. (2009). Bonding, Bridging and Linking: How Social Capital Operated in New Orleans following Hurricane Katrina. *British Journal of Social Work*. 1-17. doi:10.1093/bjsw/bcp087
- Hoffpaur, S. A., & Woodruff, L. A. (2008). Effective mental health response to catastrophic events: Lessons learned from Hurricane Katrina. *Family & Community Health*, 31, 17-22.
- Horne, J. (2008). *Breach of Faith: Hurricane Katrina and the Near Death of a Great American City*. Random House, New York.
- Interagency Performance Evaluation Task Force (IPET). (2009). The New Orleans Hurricane Protection System: Assessing Pre-Katrina Vulnerability and Improving Mitigation and Preparedness. Water Science and Technology Board (WSTB) Board on Infrastructure and the Constructed Environment (BICE). Retrieved May, 2010 from: http://books.nap.edu/openbook.php?record_id=12647&page=1
- Krause, N. (2004). Lifetime trauma, emotional support, and life satisfaction among older adults. *The Gerontologist*, 44(5), 615-623.

- Landau-Stanton, J. (1986). Competence, impermanence, and transitional mapping: A model for systems consultation. In L. C. Wynne, S. McDaniel, & T. Weber (Eds.), *Systems consultations-- A new perspective for family therapy* (pp. 253). New York: Guilford Press.
- Landau-Stanton, J. (1990). Issues and methods of treatment for families in cultural transition. In M. P. Mirkin (Ed.), *The social and political contexts of family therapy* (pp.). Massachussets: Allyn and Bacon.
- Lilienfeld, S. O. (2007). Psychological treatments that cause harm. *Perspectives on Psychological Science*, 2, 53-70.
- Lindemann, E. (1944). Symptomatology and management of acute grief. *American Journal of Psychiatry*, 101, 141–148.
- Longstaff, P. (2005). Security, resilience, and communication in unpredictable environments such as terrorism, natural disasters, and complex technology. Syracuse, New York: Author.
- Luce, A., Firth-Cozens, J, Midgley, S., & Burges, C. (2002). After the Omagh bomb: Posttraumatic stress disorder in health service staff. *Journal of Traumatic Stress*, 15, 27-30.
- Mathbor, G. M. (2007) ‘Enhancement of community preparedness for natural disasters: The role of social work in building social capital for sustainable disaster relief and management’, *International Social Work*, 50(3), pp. 357–69.
- Mayer, SE. (1995). *Building Community Capacity: The Potential of Community Foundations*, Rainbow Research, Inc., pp.1-13
- Mayou, R. A., Ehlers, A. & Hobbs, M. (2000) Psychological debriefing for road traffic accident victims. Three-year follow-up of a randomised controlled trial. *British Journal of Psychiatry*, 176, 589-593.
- Miehls, D. (2001). The interface of racial identity and development with identity complexity in clinical social work student practitioners. *Clinical Social Work Journal*, 29(3), 229–244.
- Minkler, M. (1990). Improving health through community organization. In K. Glanz, F. M. Lewis, & B. K. Rimer (Eds.), *Health behavior and health education: Theory, research, and practice* (pp. 257-287).
- Mitchell, M. J., Witman, M., & Taffaro, C. (2008). Reestablishing mental health services in St. Bernard Parish, Louisiana, following Hurricane Katrina. *Professional Psychology: Research and Practice*, 39, 66 –76.
- Moyo, O. and Moldovan, V. (2008) ‘Lessons for social workers: Hurricane Katrina as a social disaster’, *Social Development Issues*. Special Issue: Disasters and Development, 30(1), pp. 1–12.

- Muñiz, B. (2006). In the eye of the storm: How the government and private response to hurricane Katrina failed Latinos. National Council of La Raza. pp. 9-14
- National Association of Social Workers, (2005, September) Social Workers Mobilize in Wake of Hurricane Katrina. Press release. <http://www.naswdc.org/pressroom/2005/090605.asp>
- Norris FH, Stevens SP, Pfefferbaum B, Wyche, K.F., Pfefferbaum, R.L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*. 41(1-2) pp.127-150.
- Norris, F., Hamblen J., Watson P., Ruzek J., Gibson L., Pfefferbaum B., et al. (2006). Toward understanding and creating systems of postdisaster care: A case study of New York's response to the World Trade Center disaster. In E.C. Ritchie, P. Watson, & M. Friedman (Eds.), *Interventions following mass violence and disasters: Strategies for mental health practices* (pp. 343–364). New York: Guilford Press.
- Ozerdem, A. (2003) 'Disaster as Manifestation of Unresolved Development Challenges: The Marmara Earthquake, Turkey', in M. Pelling (ed.) *Natural Disasters and Development in a Globalizing World*, pp. 199–213. London: Routledge.
- Paton, D., Millar, M., & Johnston, D. (2001). Community resilience to volcanic hazard consequences. *Natural Hazards*, 24, 157–169.
- Perez-Sales, P., Cervellon, P., Vazquez, C., Vidales, D., & Gaborit, M. (2005). Post-traumatic factors and resilience: The role of shelter management and survivors' attitudes after the earthquakes in El Salvador (2001). *Journal of Community and Applied Social Psychology*, 15, 368–382.
- Putnam, R. (1998). Foreword to *Social Capital: Its Importance to Housing and Community Development*. *Housing Policy Debate* 9 (1): 5-8.
- Putnam, R. (2000) *Bowling Alone: The Collapse and Revival of American Community*, New York, Simon & Schuster.
- Pyles, L. (2007) Community Organizing for Post-disaster Social Development: locating social work. *International Social Work* 50:3 , pp. 321-333.
- Pyles, L., Cross, T. (2008) Community Revitalization in Post-Katrina New Orleans: A Critical Analysis of Social Capital in an African American Neighborhood. *Journal of Community Practice*, 16:4 pp. 383-401
- Quarantelli E. (1960). Images of withdrawal behavior in disasters: some basic misconceptions, *Soc. Prob.* 8(1) p.68.
- Quarantelli EL. (ed.) (1998). *What is a Disaster: Perspectives on the Question*. Routledge: London, New York.

- Quarantelli, E.L. (1997) Ten Criteria for Evaluating the Management of Community Disasters. *Disasters* 21(1): 39–56.
- Quarantelli, EL. (1985) An assessment of conflicting views on mental health: the consequences of traumatic events. Available from: Disaster Research Center, University of Delaware, Newark. <http://www.udel.edu/DRC/>
- Reyes, G., & Elhai, J. D. (2004). Psychosocial interventions in the early phases of disasters. *Psychotherapy: Theory, Research, Practice, Training*, 41, 399-411.
- Roberts, A. R. (Ed.). (1995). *Crisis intervention and time-limited cognitive treatment*. London: Sage.
- Roberts, A.R. (2000). *Crisis intervention handbook; Assessment, Treatment and research* (2nd ed., pp. 8-9). New York: Oxford University Press
- Rowell, CH. (2007). Mollie Day with Charles Henry Rowell. (*Callaloo* 29(4) pp. 1436-1441
- Rowlands, A. and Tan, N. T. (2008) ‘Social redevelopment following the Indian Ocean tsunami: An international social work response through the FAST Project’, *Social Development Issues*, 30(1), pp. 47–58.
- Rubin, A., & Babbie, E. (2009). *Essential Research methods for social work* (6th ed.). Pacific Grove, CA: Brooks/Cole.
- Schorr, J. K.: 1987, Some contributions German Katastrophensoziologie can make to the Sociology of Disaster, *Internat. J. Mass Emergencies and Disasters* 5(2), 115-135.
- Schuller, T., Baron, S. and Field, J. (2000) ‘Social capital: A review and critique’, in Baron, S., Field, J. and Schuller, T. (eds), *Social Capital: Critical Perspectives*, Oxford, Oxford University Press.
- Shaw R, Goda K (2004) From disaster to sustainable civil society: the Kobe experience. *Disasters*. 28:16–40
- Shaw, R. (2003) The Role of Non-governmental Organizations in Earthquake Disaster Management: An Asian Perspective. *Regional Development Dialogue*. 24(1): 117–29.
- Sherraden, Margaret S., and Ellen Fox. (1997).”The Great Flood of 1993: Response and Recovery in Five Communities.” *Journal of Community Practice* 4(3): 23-45.
- Silove D, Steel Z. (2006). Understanding community psychosocial needs after disasters: implications for mental health services. *J Postgrad Med*. 52(2):121-5.
- Silove, D., & Bryant, R. (2006). Rapid assessments of mental health needs after disasters. *JAMA*, 296, 576–578

- Simo, G., & Bies, A. L. (2007). The role of nonprofits in disaster response: an expanded model of cross-sector collaboration. *Public Admin Review*. December, Special Issue, 125–142.
- Siporin, M. (1987). Disasters and disaster aid. In A. Minahan (Ed.), *Encyclopedia of social work* (18th ed., pp. 438-449). Silver Spring, MD: National Association of Social Workers.
- Soliman, Hussein H. (1996). “Community Responses to Chronic Technological Disaster: The Case of the Pigeon River.” *Journal of Social Service Research* 22(1/2): 89-107.
- Sonn, C., & Fisher, A. (1998). Sense of community: Community resilient responses to oppression and change. *Journal of Community Psychology*, 26, 457–472.
- Stallings, R. (2002) ‘Weberian Political Sociology and Sociological Disaster Studies’, *Sociological Forum* 17(2): 281–304.
- Strang, Alison B & Ager, Alastair. (2005) Building a Conceptual Framework for Psychosocial Intervention in Complex Emergencies: Reporting on the work of the Psychosocial Working Group, Centre for International Health Studies Queen Margaret University College, Edinburgh
- Streeter, C.L., & Murty, S.A. (1996). (Eds.). *Research on Social Work and Disasters*. Binghamton, NY: Haworth.
- Sundet, Paul, and Joanne Mermelstein. (1996). “Predictors of Rural Community Survival after Natural Disaster: Implications for Social Work Practice.” *Journal of Social Service Research* 22(1/2): 57-70.
- Trattner, W. (1994). *From Poor Law to welfare state* (5th ed.). New York: Free Press.
- U.N. Department of Humanitarian Affairs. (1995, Nov.) *Military and Civil Defence Assets Reference Manual. The Use of Military and Civil Defence Assets in Relief Operations*. Document provided through ReliefWeb: <http://www.reliefweb.int/>
- U.N. Food and Agricultural Organization. (1999, Jan.) *Responding to Complex Disasters*. Food and Agricultural Organization News Archives. <http://www.fao.org/english/newsroom/highlights/1999/bauer-e.htm>
- University of York. (2001). *Undertaking systematic reviews of research on effectiveness: CRD's guidance for those carrying out or commissioning reviews*. Centre for Research and Dissemination Report 4, 2nd ed. York: NHS Centre for Reviews and Dissemination. Online at <http://www.york.ac.uk/inst/crd/report4.htm>
- Ursano, R., McCaughey, B., & Fullerton, C. (1994). *Individual and community responses to trauma and disaster: The structure of human chaos*. London: Cambridge University Press

- Walsh, F., McGoldrick, M. (Eds.) (2004). *Living Beyond Loss*. New York: Norton.
- Weichselgartner, Juergen (2001) Disaster mitigation: the concept of vulnerability revisited. *Disaster Prevention and Management*. 10(2). 2001 85-95
- Weick, Karl E (1993) The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly*.; 38, 4. p. 628
- Wolensky, R. P., and Miller, E. J. (1981). The everyday versus the disaster role of local officials. *Urban Affairs Quarterly*. 16: 483-504.
- Wolf, Richard (2006-12-21). "New Orleans symbolizes U.S. war on poverty". *USA Today*. http://www.usatoday.com/news/nation/2006-12-21-new-orleans-poverty_x.htm. Retrieved 2007-06-15.
- Wood, GG. and Middleman, RR. (1991). Advocacy and social action: Key elements in the structural approach to direct practice in social work.. *Residential Treatment for Children & Youth* 14:3/4, pp. 53-63.
- Woolcock, M. and Sweetser, A. (2002). Bright Ideas: Social Capital—The Bonds That Connect. *ADB Review*. 34 (2).
- Yanay, U., and Benjamin, S. (2005). The role of social workers in disasters. *International Social Work*. Sage Publications: London, Thousand Oaks, CA and New Delhi. 48(3). pp. 263–276
- Zakour, M.J. (1996a). 'Disaster Research in Social Work', in C.L. Streeter and S.A. Murty (eds) *Research on Social Work and Disasters*, pp. 7–25. Binghamton, NY: Haworth Press.
- Zakour, Michael J. (1996b). "Geographic and Social Distance during Emergencies: A Path Model of Interorganizational Links." *Social Work Research* 20(1): 19-29.
- Zakour, Michael J.(1997) 'Disaster Research in Social Work', *Journal of Social Service Research*, 22: 1, 7— 25
- Zakour, Michael J., and Evelyn B. Harrell. (2003a). "Access to Disaster Services: Social Work Interventions for Vulnerable Populations." *J Social Service Research* 30(2): 27-54.
- Zakour, MJ. (2003b), *Social Work and Disasters*. FEMA. <http://training.fema.gov>
- Zetter, R. and Pearl, M. (2000). The Minority within the Minority: Refugee Community-based Organisations in the UK and the Impact of Restrictionism on Asylum-seekers, *Journal of Ethnic and Migration Studies* 26(4): 675-98.