ABSTRACT

While data are limited, field reports indicate that reported violence against women increases in communities hit by environmental disasters. Seventy-seven Canadian and U.S. domestic violence programs participated in a study of organizational readiness, impact, and response employing a mail survey and open-ended telephone interviewing. Low levels of in-house emergency preparedness were found, but also strong interest in increasing disaster readiness Those programs most severely impacted by disasters reported increased service demands, as long as one year after the event, and decreased organizational resources Strategies are suggested for more fully engaging women's services in community-based disaster mitigation, planning, and response.

Now strongly developed as a major subdiscipline in the field, the sociology of gender can hardly be said to have a presence among our colleagues in disaster social science. This alienation has strongly influenced theoretical and applied knowledge about the social experience of disaster. Because the social location of the observer shapes knowledge claims, including the knowledge we have about disasters, the absence of these specifically female experiences in the sociology of disaster is a real loss.

A quarter-century of research now documents gendered social structure and process in intimate relationships, households and family life, the state, formal and informal economies, complex organizations, and popular culture (Lorber, 1994; Lorber & Farrell, 1991; Epstein, 1988; Hess & Ferree, 1987). This work, however, clearly fails to influence most sociologists in the developed world who study emergency communication, family preparedness and response, economic effects and recovery, emergency management professions, community and organizational planning and response, or disaster mitigation (see Fothergill,1996 for a review of gender in disaster studies). Particularly in dominant U.S. paradigm, a determinedly "gender neutral" analysis of disaster renders invisible the profoundly gendered social structure of the communities, organizations, households, and intimate relationships within which disastrous events actually unfold. Indeed, even women as disaster subjects are generally invisible, beyond the now-routine inclusion of "sex" as a demographic variable in disaster survey research.

Gender relations in disaster are more visible in disaster vulnerability theory written from the developing world (Bolin, Jackson & Crist, 1998). Vulnerability theory emerges, not from functionalist sociology, but from the study of development processes in

postcolonial societies, where disasters take their largest human toll and mortality statistics dramatically portray women's vulnerability (Ikeda, 1995). Gender relations are integral rather than incidental when vulnerability theorists examine slow-onset disasters like drought and famine (see Vaughan, 1987; Schroeder, 1987). Gender and development theory (e.g., Tinker, 1990) and disaster response training materials based on these ideas (e.g., Eade & Williams, 1995) highlight the social relations of gender in national and global development; to the degree that disasters are largely social products of global development patterns, gender equality is a central concern (Anderson,1994; Anderson &Woodrow, 1989, Fernando & Fernando, 1997). Writing in this tradition, vulnerability theorists locate "natural" disaster in the interaction of physical hazards and forces with social structure and power relations in everyday life (among others, see Maskrey, 1989; Hewitt, 1983; Oliver-Smith, 1986, Blaikie et al., 1994). In this view, gendered household economies, lending institutions, relief organizations, and kinship relations are embedded social practices at the core of disaster vulnerability. Not sex or gender alone, but gender inequality is at the core of women's vulnerability, for example in the gender politics of household recovery (Blaikie et al.,1994, 67):

> Within the household and family, successfully securing resources in potentially disastrous times depends upon the implicit bargaining strength of its members . . Women tend to lose these conflicts for scarce resources, and are affected by who eats first, the share of available food, and lack of access to cash earned by other family members . . .The range of resources controlled by women, and employment opportunities open to them, tends to be more limited.

An emerging feminist disaster sociology, based largely on studies conducted in the developed world, now examines how disasters unfold and are made meaningful "through women's eyes" (see Phillips, 1990; Morrow & Enarson,1996; contributors to Enarson & Morrow, 1998). The material conditions of women's everyday lives—which include domestic labor, caregiving, and vulnerability to sexual and domestic violence—afford women an angle of vision not otherwise knowable. Standpoint theory, as developed by Nancy Hartsock (1983), Dorothy Smith (1987), Patricia Hill Collins (1990) and others, does not suggest a single, unitary female stance or exclusive truth claims, as the experiences of women across racial, ethnic, economic, sexual, and cultural divides are manifestly diverse. But the knowledge earned by women, forged by oppression into a social group at once highly vulnerable to disaster and marginalized in emergency management, cannot be captured without attention to gender relations in disaster theory and practice. That we have not yet heard the voices of women disaster subjects, understood calamitous events and processes through their everyday experience, documented their disaster decisions and survival strategies, or addressed their interests and needs in disaster practice and policy reflects, not their irrelevance, but our failure to ask the right questions (for a gendered research agenda, see Enarson, 1998; Bolin, Jackson, & Crist, 1998).

To help produce more accurate knowledge about the social impacts of disaster, this study investigated 'first responders' in grassroots organizations serving women at risk of violence. I examined domestic violence as a specifically gendered form of disaster vulnerability, drawing on the lived experience and knowledge, not of individual battered

women, but of advocates whose work positioned them to anticipate and mitigate the effects of environmental disasters on battered women. Asking generally how sudden-onset disasters impact organizations serving those at risk of the "daily disaster" of domestic violence, the study specifically investigated five key questions: how salient community hazards were to domestic violence agencies; how well integrated these agencies were in local emergency management networks; patterns in organizational preparedness; direct and indirect program impacts of community disasters; and postdisaster changes in organizational capacities and preparedness. As reported through survey responses, telephone interviews, and face-to-face interviews, the hard-won knowledge of battered women's advocates, grounded in a political culture of feminist opposition to violence against women, challenged the gender-neutral paradigm of disaster social science.

VIOLENCE AGAINST WOMEN IN DISASTERS

Women's disaster vulnerability is often taken to derive simplistically from poverty. Impoverished living conditions certainly place people at greater risk in disasters, but such factors as household structure, marital status, age and physical ability, citizenship status, race and ethnicity, and language interact with economic status to produce inequitable conditions disadvantaging women (Wiest et al., 1994). Less well understood is how real or threatened male violence puts girls and women at risk in disaster contexts.<s>1Domestic violence is a social fact contributing to the specifically gendered vulnerability of women to disaster. Women subject to violence "behind closed doors" are an at-risk population of women whose vulnerability is less visible than that of women in

poverty, refugees, single mothers, widows, senior or disabled women. Indeed, violence against women in intimate relations crosses these and other social lines, impacting an estimated one in four women in the U.S. and Canada and as many as 60 percent in parts of Africa, Latin America and Asia (United Nations Social Statistics and Indicators, 1995, 160).

Sexual and domestic violence have been identified as issues for women refugees and displaced persons in temporary camps (League of Red Cross and Red Crescent Societies, 1991; Wiest et al , 1994), but domestic violence in other disaster contexts is largely unexplored. Some field reports suggest that abuse increases as a result of disaster, as in this account of a major Australian flood in 1990: "Human relations were laid bare and the strengths and weaknesses in relationships came more sharply into focus. Thus, socially isolated women became more isolated, domestic violence increased, and the core of relationships with family, friends and spouses were exposed" (Dobson, 1994, 11). Increased violence was also noted anecdotally in field reports from the Philippines after the Mt. Pinatubo eruption (Delica, 1998) and after the Exxon Valdez oil spill (Palinkas et al., 1993).

Some data suggest domestic violence increased after the Loma Prieta earthquake, the 1993 Missouri floods, and Miami's Hurricane Andrew though no controlled population surveys have been conducted on the topic. The director of a Santa Cruz battered women's shelter reported an increase of 50% in requests for temporary restraining orders after the Loma Prieta earthquake; observing that housing shortages were restricting women's ability to leave violent relationships, she urged that "when the community considers

replacement housing issues, battered women should not be overlooked" (United Way of Santa Cruz County, 1990, 201). Five months after the earthquake, a United Way survey of over 300 service providers ranked "protective services for women, children, and elderly" sixth among 41 community services least available to residents (United Way of Santa Cruz County, 1990, 25)

Following the 1993 Midwest flooding, the Missouri Coalition Against Domestic Violence notified Governor Mel Carnahan that "flood-related increases in the demand for domestic violence services by battered women, many with dependent children, had created a critical shortage of resources needed to secure support and safety for these families" (Constance & Coble, 1995,1). The average state turn-away rate at shelters rose 111% over the preceding year. An existing federal grant was subsequently modified and the Coalition administered capacity-building grants to 35 flood-affected programs in an innovative response to both substance abuse and domestic violence during flood recovery. The final report notes that while these programs were expected to shelter an estimated 660 flood survivors who were also victims of domestic violence (220 mothers, 440 children), eventually over 3,400 flood-impacted women and children were taken in over the 12-month period, meeting a need more than 400 percent higher than predicted (Constance & Coble, 1995, 19).

In Miami, Morrow (1997) reported on a range of stress factors testing or "stretching the bonds" supporting family members through Hurricane Andrew. Spousal abuse calls to the local community helpline increased by 50% (Laudisio, 1993) and over one-third of 1400 surveyed residents reported that someone in their home had lost verbal or physical

control in the two months since the hurricane (Centers for Disease Control, 1992). Requests for protection orders also increased but follow a pre-disaster pattern of increased applications in Dade County's new domestic violence court (Morrow, 1997, 158).

Perceived changes in the incidence of domestic violence have been investigated in one study. A team of U.S. researchers (Wilson, Phillips, & Neal, 1998) examined local perceptions of domestic violence and subsequent organizational responses following the Loma Prieta earthquake, a tornado in Lancaster, Texas, and Hurricane Andrew in Dade County. Their findings suggest that the degree to which communities identify domestic violence as an issue and are organized to respond to it before a disaster strongly impacts the nature and scale of community response to battered women after the event.

Far from conclusive, these preliminary data suggest that women may be at greater risk of violence when, in the aftermath of disaster, a decidedly "un-therapeutic community" emerges at the household level (Olson & Drury, 1997). Women in volatile relationships may bear the brunt of disaster losses long into the recovery period, as in the following account from "Andrea," a young woman still living in a South Dade County women's shelter more than six months after Hurricane Andrew (Morrow & Enarson, 1996):

> And of course the shock of just losing things that got broke in the hurricane—my husband went crazy. He couldn't take the pressure—being used to everything, and then coming down to no eating, because we could not find food . I'm not even working– of course the school where I was working got destroyed, it was in Cutler Ridge. And my husband, of course he wasn't working because his business got

destroyed. And it was just terrible . . . I found a job about six months later at the Keys, pumping gas. At this point, my husband's like, just berserk. He was fighting me. I'm trying to work at a gas station pumping gas. Then, luckily, the school didn't get hit that bad, I said, well, maybe I can substitute . . . So I was subbing during the day, two hours rest in between, pumping gas at night from five until nine—and a husband sitting home that was too great and too grand to work for a little $7 or $10 an hour. And then he was beating me up, taking my money—there was just so much going on that I just couldn't—he was really going berserk. I was getting beat up pretty bad.

Power and Control in Disasters

Like other complex social events, disasters do not have a single or one-dimensional impact on women in volatile relationships Paradoxically, a family home destroyed by fire may loosen the ties binding women to violent partners; disaster relief money can buy a bus ticket out of town for women ready to leave, and responding to catastrophe may reduce abuse temporarily. More than simply victims, battered women develop survival skills to protect themselves and their children which have not yet been investigated in disaster contexts.

But it is important for disaster planners to understand how the dynamic of domestic violence may compromise battered women's safety in the aftermath of disaster and their access to relief and recovery resources. Not "stress" but the cycle of violence is at issue. Subject to a vicious cycle of power and control, battered women live in a world of increasingly narrow social networks with abusers who keep them isolated, restrict their

transportation and employment opportunities, and control household resources (see Walker, 1984; Pagelow, 1984; Dobash & Dobash, 1979). Like their physical and emotional health, their sense of self-worth and efficacy diminishes in the face of continued violence.

Living through fear and intimidation on a daily basis, battered women are already in emotional crisis before disaster. Attending to preparedness or evacuation warnings, stabilizing their life in a disaster-stricken neighborhood, or accessing recovery resources may be impossible tasks. For women and children who have left violent relationships for a safe home, motel, shelter, or transition home, mandatory evacuation following an industrial accident or in advance of wild fire is a second-order evacuation. When evacuation from the women's shelter is necessary, designated evacuation centers may not protect their privacy or ensure their safety, especially in small communities.

Relationship stress factors certainly increase when families struggle to replace lost possessions, housing, jobs, and peace of mind. Men emotionally invested in the role of family provider and protector may well struggle with feelings of inadequacy and uncertainty, as researchers reported in the aftermath of Hurricane Andrew (Always, Belgrave, & Smith, 1998). A counselor working with men after the Loma Prieta earthquake observed that "many men used the quake as a way to get themselves back into an old relationship" (Commission for the Prevention of Violence, 1990). Severe weather events like mudslide or blizzard isolate women at home in unsafe environments without working telephones or accessible roads; contact with crisis counselors may be cut off and court-ordered protection unavailable when major disasters disrupt or destroy lifeline

services, including law enforcement agencies.

When the dust clears or the waters recede, women coping with physical and/or emotional abuse must access bureaucratic disaster relief systems and compete with other impacted residents for housing, child care, employment, education, transportation, and health services. Relief funds may be more available to the abuser at home than to women living in shelter. Arguably the most vital lifeline for battered women, affordable housing is likely to decline after disaster, when cheap housing on hazard-prone land is damaged or destroyed.

Not yet identified as a special-risk population, battered women and their children are at special risk during and after disaster. Local domestic violence programs are vital resources for women like "Andrea," whose story began above

> We were on our way from the Keys here to Homestead in this beat-up car that we did have running a little bit when he jumped on me . You can go miles and miles and don't find anything—no gas, no food, no nothing. But finally, like I'd say about six months later, Homestead got one gas station, so we made it there and I was able to call the police, and I ended up here at the shelter . . . I didn't have any clothes, because I was fleeing for my life. I came here with one shoe, ended up going to the emergency room . . . He really went crazy. Before, I would get beat up maybe once a month if I was lucky Afterwards it was like every other day . . I was getting tired of it, but I was scared to leave him, because where was I going to go? Who did I know?. . But then, after the hurricane it all got worse . . It was really rough for a female. I ran across a lot of women suffering too with their children—husbands

beating them up and leaving them. It was pretty bad.

THE SHELTER STUDY: METHODOLOGY AND SAMPLE

I report here on a comparative survey of disaster preparedness, impacts, and response in domestic violence programs in Canada and the United States. This was an action research project designed both to contribute to disaster theory and to elicit knowledge for antiviolence programs organizing around disaster issues.<s>2The findings also had policy implications for emergency management planning and formed the basis for action-oriented guidelines for emergency planners and women's shelters (Enarson, 1997).

The unit of analysis was battered women's programs in the United States and Canada, including shelters or transition houses as well as administrative coalitions A purposive sample of domestic violence programs was defined, in two stages, and surveyed by mail and/or telephone between April and November, 1997. In the first stage, all statewide and provincial associations or coalitions were mailed a 23-item survey which included both closed- and open-ended questions; usable surveys were returned from 16 of 51 states and the District of Columbia in the U.S. and from 5 of 11 provinces in Canada (N=21).<s>3Respondents from these umbrella organizations were then asked to provide contact information for telephone interviews with member shelters they identified as either particularly at-risk or previously disaster-impacted; telephone interviews were conducted with 21 of these shelters, selecting for geographic diversity and direct disaster experience. In addition, all shelter-providing members of the British Columbia/Yukon Society of Transition Houses were surveyed by mail, with a response rate of 46% (N=35).

The methodology resulted in a sample of 77 domestic violence shelters, transition houses, and state or provincial coalition offices.<s>4The majority provide on-site shelter, though some smaller programs rely on a network of safe homes, motels, or other local shelters to house their clients. Both "disaster-knowledgeable" and "disaster-impacted" programs were identified and analyzed separately. Forty-one programs reported general knowledge of area disasters and were classified "disaster-knowledgeable" while 36 lacked even general experience with regional events. In the sample as a whole, 25 programs reported direct service impacts from past disasters and were considered "disaster-impacted," although they may have general knowledge of area disasters, the remaining 52 programs reported no direct service impacts from a particular event The British Columbia/Yukon case study (35 of 77 respondents) weights the sample toward the experiences of small West Coast communities.

As expected, most respondents reported no or relatively minor disaster events (e.g., minor flooding, localized toxic spill). However, the survey also included 13 programs severely impacted in the 1990s by major flooding in the U.S Midwest and Quebec, cross-border flooding in the Red River Valley of Manitoba and North Dakota, a southern California earthquake, and Hurricanes Andrew and Iniki. Drawing on site visits, participant-observation with the North Dakota Council on Abused Women's Services, telephone interviews, and media accounts, I pay particular attention to the April 1997 Red River Valley flood. This event resulted in major flooding in Grand Forks, North Dakota and East Grand Forks, Minnesota as well as two rural communities south of Winnipeg, and put the provincial capital on evacuation alert for weeks.

Sample size precluded a systematic comparative analysis between disaster and domestic violence planning and response in the two countries; however, no obvious patterns of difference were noted. While survey results cannot be generalized to all shelters in either the United States or Canada, the study provides baseline data and identifies emergent issues.

DISASTER READINESS IN BATTERED WOMEN'S PROGRAMS

"What we give them is all that they have," one worker remembered thinking after a fire in the shelter. As battered women's shelters are not generally recognized as priority facilities housing and serving an especially vulnerable population, their self-reliance through disaster preparedness is critical. Yet, with some exceptions, the survey suggested very low levels of awareness and preparedness.

Hazard Awareness And Risk Assessment

As expected, programs with direct regional experience of prior disasters indicated a higher awareness than other programs of locally hazardous conditions or occurrences, citing risks ranging from avalanche, gas explosions or hazardous materials transportation accidents to wild fire, flooding, tornado and earthquake. Few reported regularly receiving any official information on disaster preparation, depending solely on mass media; rural programs were somewhat more likely to receive direct communication, e.g. annual flood response plans from city officials.

Few programs reported participating in local, regional, or provincial disaster planning groups. Among the 36 programs without prior experience of regional disasters, four participate in local emergency networks; the great majority (31 of 36) were either not

certain or reported that their facility was not specifically included in local disaster plans (e.g. for priority evacuation assistance, communications, or emergency power). Programs with some prior regional disaster experience were also unlikely to participate in local planning efforts (4 of 41). More disaster-experienced programs did report being included in local response plans (13 of 41 programs, or 32%), resulting in some instances in "stronger relationships with emergency managers" (9 of 41, or 22%).

Battered women's shelters are special-care facilities housing extraordinarily vulnerable women and children. How safe are they? Overall, most responding shelters reported their physical facilities to be "relatively safe." Many, however, are located in older buildings affordable to women's services or are centrally located in communities built up in hazardous coastal or flood plain areas. A number of British Columbia programs located in a known earthquake zone reported that their facility was "relatively safe," adding paranthetically "not safe in the event of earthquake." Assessing the structural integrity of shelters requires worst-case scenario planning, specialized knowledge, and adequate funding for analysis and follow-up renovation

Shelter Preparedness

Disaster planning is not a priority for domestic violence programs preoccupied with meeting the challenge of "securing basic needs for women and children, e.g. safety, housing, etc." As one shelter worker identified the major obstacles to disaster planning in her program. "Time and money. Demand for our services is very high and no increases in funding are like cuts to us."

[Table 1 about here]