In the Path of Disasters: Psychosocial Issues for Preparedness, Response, and Recovery

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Abbreviations:
HIV/AIDS = Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
NGO = non-governmental organization
OMRN = Ocean Management Research Network
SARS = Severe Acute Respiratory Syndrome

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Abstract

The psychosocial impacts of disasters are profound. In recent years, there have been too many reminders of these impacts and the dire needs of the people involved. The purpose of this article is to present the following themes from the psychosocial literature on disasters and emergency management: (1) differential impacts of disasters according to gender and age; (2) prevention efforts to reduce racial discrimination, rape, and other forms of abuse; (3) readiness for cultural change toward prevention and preparedness; and (4) the need to involve aid beneficiaries as active partners in relief strategies, particularly during reconstruction of communities and critical systems. Psychosocial needs change throughout the disaster cycle, particularly as social support deteriorates over time. It is important to anticipate what psychosocial needs of the public, emergency responders, support staff, and volunteers might emerge, before advancing to the next stage of the disaster. Particular consideration needs to be directed toward differential impacts of disasters based on gender, age, and other vulnerabilities.

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Introduction

Within the past year, the world has observed the impacts of several large-scale disasters; such as, the Pakistan earthquake, flooding of the US Gulf Coast, terrorist bombings in the London subway, and the Tsunami in Southeast Asia. Meanwhile, the long-standing conflict in Sudan and the rampant spread of Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) in Africa and India continue to devastate these regions. These events have profound psychological impacts, not only for the communities directly affected, but worldwide, as others try to understand how people cope with these situations.

Traditional research and interventions in disasters have focused on meeting the immediate physical needs of those directly affected. Tangible assistance, such as the provision of shelter, food, clothing, medicine, and money, are critical for helping people manage the acute phases of a disaster, and into later phases of reconstruction and recovery.[1] Another essential component of disaster management is the provision of psychosocial services to help victims cope with the emotional aspects of a large-scale event. Emotional needs vary according to the phase and type of the disaster.[2]

Several themes are evident in the psychosocial aspects of disasters and emergency management. These themes include, but are not limited to: (1) differential impacts of disasters according to gender and age; (2) prevention efforts to reduce racial discrimination, rape, and other forms of abuse; (3) readiness for cultural change toward prevention and preparedness; and (4) the need to involve aid beneficiaries as active partners in relief strategies, particularly during the reconstruction of communities and critical systems.

The psychosocial effects of disasters are complex and require a coordinated, interdisciplinary, multi-sectoral approach. While the above list is not exhaustive, it provides a glimpse of the issues that must to be addressed in dis-

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aster research and operational practices. The purpose of this paper is to highlight these psychosocial issues, and stimulate new ways of thinking about disasters and best practices in coordinated planning, response, and recovery efforts.

Differential Impacts by Gender and Age

Children, elderly persons, and dependent adults are most vulnerable to the physical and psychosocial impacts of disasters. Women represent another particularly vulnerable group, but it also is important to understand the unique psychosocial needs of men as well. Little research on the psychosocial needs of men and women has been published. Disasters have unique effects on different subgroups of the population, and during different phases of the disaster, the psychosocial needs of these groups also change.

Historically, gender has been a significant, yet relatively unrecognized factor in disaster management and recovery. A substantial review of the gender and disaster management literature depicts how women are relegated to minor roles in disaster management and reconstruction and are confined largely to service positions, while men dominate decision-making and policy formulation.[3–8] Men also are over-represented in traditional "first responder" occupations (e.g., fire, police, military), whereas women predominately play important, yet invisible roles in maintaining social cohesion and community identity as unpaid caregivers and professional care providers to family and community members.

The 2004 Asian Earthquake and Tsunami killed as many as 400,000 people in 12 countries. The actual numbers may never be known. In certain regions and districts, up to 80% of deaths were women and children.[9] The events created chaos that contributed to the destruction of the social fabric in the affected countries. The legacy of the Earthquake and Tsunami will impact present and future generations.

Evidence from the Earthquake and Tsunami experience provides insight into the respective gender roles of women and men. According to non-governmental organizations (NGOs) such as Oxfam, disasters are "profoundly discriminatory".[10] Social structures present before a disaster, such as poverty, housing and property policies, women's rights, and gender roles, determine who will be more affected by a disaster.

Women particularly were vulnerable during the 2004 Asian Earthquake and Tsunami, due to social and cultural factors, including their roles as family caregivers. This vulnerability continues as countries and communities rebuild from the disaster. Many women were on the beaches, harvesting fish on the morning the Tsunami occurred. In Matara, in Southern Sri Lanka, many women were at the bus stands and morning market adjacent to the sea. In the affected countries, women and girls, unlike men and boys, rarely are taught to swim, and because of their floor-length, wrap-around clothing, women have difficulty running from danger. Unlike men and boys, who have regular practice climbing trees to pick fruit, women neither have the experience nor the upper-body strength to climb trees or pull themselves to the safety of rooftops. Moreover, in developing nations like Sri Lanka and Indonesia, during disasters, women often are in their houses caring for children and other dependent family members. During the Tsunami, many women drowned trying to save their children, and in the aftermath, others were traumatized because they were not able to save all of their children.[9]

As communities rebuild and victims move through the various stages of grief, it is apparent that altered demographics, such as the proportion of women and men in the population, have created unique challenges for the people in these countries. Many men who survived the Tsunami now are single parents, with new caregiving issues as they try to make a living and rebuild their homes. New cooperatives are being formed among single men with families to address childcare challenges and other altered domestic roles. Community groups and NGOs are providing care for thousands of young orphans and elderly persons who will need psychosocial support for years to come.[9]

The decreased number of women in these communities has created other risks for the women and young girls who survived the Tsunami. Undernourishment and safety in camps are a critical concern. There are reports of women and adolescent girls being coerced into marriage, and poverty and community safety issues make them more vulnerable to sexual assault and exploitation. Oxfam raised questions about the wider impact on gender imbalances with the possibility that surviving women "may also be encouraged to have more children, with shorter intervals between them, to replace those lost by the community".[9] These social conditions can have negative consequences in terms of women's reproductive health and individual capacity for earning an independent income.

The gender challenges and issues facing Earthquake and Tsunami survivors and their families were a central concern outlined in the final report of two meetings hosted by the Ocean Management Research Network (OMRN) and the University of Ottawa, in Halifax and Ottawa, on 21 January and 22 April 2005, respectively.[11] More than 100 participants represented social, marine, and oceanographic sciences, as well as project management experts from NGOs. The literature corroborates the concerns about the unique vulnerability of women and children. During and following events such as tsunamis, floods, or earthquakes, women and girls have fewer options in terms of employment opportunities, resources, and personal security, making them more vulnerable than men.[5]

Vulnerabilities due to gender and age are not limited to specific areas of the world. The vulnerability of older and dependent adults, as well as people with fewer socio-economic resources, was evident during the flooding following Hurricane Katrina in the US. Many people were able to evacuate their homes and flee by car or other modes of transportation to other areas until the acute phase of the disaster had passed. Others had no access to transportation and were unable to mobilize themselves, or were providing care for dependent family members or friends. There were numerous examples of older and dependent adults who were unable to evacuate vertically (i.e., climb the stairs within their homes to the attic or roof) to await rescue assistance.[12]

People with a chronic debilitating disease are particularly vulnerable during infectious disease outbreaks. Higher mortality rates were observed for older patients during the outbreak of sudden acute respiratory syndrome (SARS) in

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2003, particularly for those with underlying chronic disease.[13] Because the majority of primary caregivers for older, dependent adults and for the children are women, women are particularly vulnerable to such outbreaks as a pandemic influenza.[14] The community response capacity will depend on the care provided by unpaid caregivers.[15] Women often have multiple caregiving roles and work at traditional jobs. They may be at a heightened risk of becoming infected, which then creates additional challenges in terms of providing additional caregiving support.

Within the Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) epidemic, differential impacts by gender also have been observed in Africa, India, China, and the former Soviet Union.[16] Physiologically, women and girls are more vulnerable to sexual transmission of the HIV antigen than males.[17] Women also face a heightened risk of contracting HIV as a result of their social relationships, such as infection from spouses who have multiple sexual partners, or who have engaged the services of a prostitute.[18] Young women, often teenagers or young widows with few resources to feed their families, may be forced into the sex trade and contract HIV. Children are vulnerable to the transmission of HIV at birth, and face lifelong complications and social stigmatization as a result of having HIV/AIDS. This stigmatization often limits socioeconomic opportunities and perpetuates the cycle of poverty.[18]

Efforts to Reduce Rape, Racial Discrimination, and Other Forms of Abuse

Vulnerability during disasters relates to the direct impact of disasters, and to the heightened risk of experiencing abuse as a result of dismantled or disrupted social systems. Rape and domestic or community violence are pressing issues in disaster scenarios. Rape may be used as a weapon of war, and it is prominent in refugee camps and communities in conflict.[19] Other forms of violence, such as spousal or child abuse may increase during a disaster, due to intense psychosocial stress. This may be compounded by increased alcohol consumption.[20]

It is essential that efforts to increase community awareness of issues related to domestic violence commence prior to an event. When communities have interventions in place, they tend to be more attuned to the need for these services post-event. Therefore, problems associated with unmet needs within the community during the response and recovery phases are mitigated.[21] An important consideration for emergency management planners is incorporating services for the victims of domestic violence within municipal emergency plans, and having specialists to provide these services, as well as be part of disaster response planning activities.[21]

> *We need to find new ways to convince communities of the need for [domestic violence] services, including the uninterrupted continuation, or increase, of services after a major disaster. Victims may not know where to turn for help after an event. They may perceive that the community defines other problems as priorities, leaving them without needed intervention and resources...more injuries and deaths could result.*[21]

Racial discrimination is a common form of psychosocial stress during crises. For example, terrorist attacks create public outrage directed toward cultural or religious groups that may share the same ancestry or religious affiliation as those who precipitated the attack. These subgroups of the population often are marginalized to the extent that public interventions are necessary to reduce violence and secondary crises. For example, following the 11 September 2001 attacks on the World Trade Center and US Pentagon, Islamic and Muslim groups across the world were subjected to intense racial and religious discrimination. During the 2003 SARS outbreak, Asian communities experienced social stigmatization stemming from the fact that the outbreak originated in China.[22]

Changin Culture to Prevention and Preparedness

Since the 2003 SARS outbreak, global surveillance for infectious disease and enhanced international coordination efforts to mitigate future outbreaks of SARS or other communicable diseases has increased. Planning activities for pandemic influenza also are examples of a shifting paradigm toward prevention and preparedness. In Canada, this new paradigm has been adopted in preparation for a large-scale outbreak. Multiple sectors and disciplines have collaborated, and continue to update detailed pandemic influenza plans at national, provincial, and municipal jurisdictional levels.[15,23,24] A refreshing trend within these plans is the consideration of psychosocial impacts and needs of the public, emergency responders, and volunteers. Implementation of support remains a challenge, but it is encouraging to see the acknowledgement of psychosocial issues and intervention objectives.

In preparation for future disasters caused by natural hazards, researchers continue to collaborate internationally to establish early warning systems, international liaisons, and communication networks. Several challenges are present in the implementation of these types of systems. In the Tsunami-affected countries, the provision of early warning systems must be accompanied by consultations to address the psychosocial factors relating to effective use. This includes the type of alarm systems used, and public education to recognize the alarm, and to know how to respond to the event (such as vertical evacuation or moving to higher ground).[25]

Planning psychosocial interventions for some specific hazards presents a particular challenge. Hazards, such as the absence of borders in cyber security, or the global impact that can result from infectious disease outbreaks present different characteristics. New approaches and creative collaboration linking communities with other jurisdictional levels are required.[26]

> *New hazards present new contingencies that place the emphasis on managing new and unfamiliar situations. In sociological terms, new hazards created more social and cultural emergence... Higher priority should be given to emphasize creative managing rather than standardized and usually rigid paper plans.*[26]

As the world braces for pandemic influenza, the media has been active in raising awareness of the risks associated

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with this type of outbreak, and has been providing an overview of historical lessons from previous influenza pandemics. Influenza pandemics have occurred three times during the last century, and four times during the previous century.[27] Scientists from organizations such as the World Health Organization, the US Centers for Disease Control and Prevention, the Canadian Public Health Agency, and other reputable agencies, caution that the H5N1 virus has the potential to cross the species barrier.

Aid Beneficiaries as Active Partners

International and national aid is an essential element of any response to a large-scale disaster, particularly for low-income countries with few resources to engage response strategies.[1] One of the challenges concerning the acceptance of external aid is the struggle for control over the dissemination of aid, labor support, and respect for cultural traditions. Aid is most effective when projects are coordinated with different sectors and include local ownership and consultation as foundational principles.[28]

McAllister describes how the Red Cross and the Red Crescent agencies have learned several key lessons through disaster relief experiences: (1) the need to emphasize prevention and preparedness; (2) the inadequacy of "band-aid" solutions, which do not address the underlying societal problems; (3) the critical need for longer-term development frameworks, fiscal resources, and tested models to facilitate implementation; (4) the benefits of strengthening non-governmental relief agencies by supporting local offices, training volunteers during the pre-disaster period, and recognizing the importance of strategic alliances between international aid organizations and local NGO groups; (5) the necessity of staying attuned to environmental issues through the disaster and reconstruction processes; and (6) the importance of recognizing that local people generally are well-placed to help themselves with the aid provided. "Both relief and development efforts should always include 'capacity building' ingredients."[1]

For disaster victims, it is important to establish structures and routines that resemble normalcy.[5] One example is to re-institute school routines as soon as possible. Many social systems are linked to education, including communication channels, social relationships, health care, and caregiving arrangements. Not long after the South Asian Earthquake and Tsunami, teachers dedicated to their roles and the well-being of their students, engaged children in scholarly activities in order to bring some structure and purpose to the dismal living conditions, and provide distraction from overwhelming grief.[29–31]

In a study examining the natural history of two cities (Grand Forks, North Dakota and East Grand Forks, Minnesota) during the two years following devastating floods in 1997, it was concluded that throughout the recovery process, citizen consultation and participation were key factors in community satisfaction with relief strategies. East Grand Forks specifically mobilized its population to participate in extensive, two-way communication sessions, to ensure all stakeholders had a voice in policy decisions following the event. Alternatively, Grand Forks, a larger community with accompanying logistical challenges to public consultation, was criticized for its one-way communication with citizens and apparent disregard for public engagement in decision-making. Kweit and Kweit suggest that differences in community size do not explain the different population reactions and ratings of satisfaction with governance throughout the disaster. Instead they suggest that "the symbolic value of participation may be more important than its instrumental value, at least in the case of disaster recovery".[32]

Conclusions

In light of the psychosocial issues presented, it is pertinent to think of the future, particularly in terms of what steps are needed, and which organizations and individuals can be engaged to act toward better preparedness. Psychosocial needs change throughout the disaster cycle, particularly as social support deteriorates over time.[33] When planning response strategies, it is important to anticipate the psychosocial needs of the public, emergency responders, support staff, and volunteers, before advancing to the next stage of the disaster. Particular consideration must be directed toward differential impacts of disasters based on gender, age, and other vulnerabilities.

During the recovery phase of disasters, including pandemics, there are great opportunities and development moments. There is time to educate and mobilize families and households—women and men, girls and boys—to prepare for the next disaster. It is a social imperative that mobilization is performed without frightening or worrying the affected populations. Lessons learned must be shared objectively and citizens must be provided with the opportunity to help themselves and their communities.

In preparing for the future, the Family Caregivers Association of Nova Scotia, Canada, advises every family to develop a caregiving plan. The City of Ottawa Emergency Management Unit currently is promoting its "Are You Ready" campaign, which focuses on individual and family preparedness, with detailed toolkits designed to make the process easier.[34] What is required is the political will of each family, employer, social organization, and NGO, to dedicate the time and resources to help its membership plan for their futures.

It is possible to learn from the past, to share and apply collective experience, and to prepare communities for the next event. Through intelligent cooperative action, it may be possible to mitigate the impact of adverse events by helping families plan for the future throughout the world.

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In the Path of Disasters: Psychosocial Issues for Preparedness, Response, and Recovery: Commentary

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The focus of this excellent paper by Amaratunga and O'Sullivan on particular vulnerabilities in disasters based on gender, age, and societal and cultural roles, and provides an important perspective on the psychosocial as well as health consequences of disasters. These particular topics have not received a great deal of attention in the medically-oriented disaster literature. Therefore, the dissemination of information on the devastating psychosocial sequelae of disasters requires increased efforts to develop more advanced policy and planning to deal with these issues.

The history of natural disasters indicates that an extremely large number occur in the economically poorest countries in the world, which, concomitantly, have the least advanced infrastructure for effective medical and psychological response. Furthermore, the morbidity and mortality rates following the 2004 Southeast Asian Tsunami were disproportionately high for women, children, and the elderly. As the authors point out, these differential rates can be explained in part by the influence of role behaviors (for example, women were more likely to be at the market in exposed beach areas) and physical characteristics that increased risk. While the possibility and pathway to rescue and safety depends on the particular situation, the relatively greater vulnerability of these groups appears consistent across a range of natural disasters.

The issue of specific vulnerabilities often is interrelated with attitudes about expected behaviors in a particular society and the provision of social support to members in that cultural milieu. The traditional roles and expectations across many cultures designating that women serve as caregivers for others clearly add additional psychological and physical burdens to an already traumatized group. Conversely, the burden on men may relate to their perceived role as providers of food and safety, and the difficulties and self-blame experienced when these traditional behaviors were not and cannot be fulfilled.

Another important issue addressed in this paper is the tremendous problem of rape and other forms of sexual assault/enslavement systematically used in war as an instrument of power and planned degradation, and also occurring in the turmoil and breakdown of social structure following a large-scale disaster. Clearly, greater attention to the immediate medical and later public health needs of these victims is crucial; however, it is also important for the disaster community to take a proactive role in regard to this problem. It is imperative that the persons planning for and setting up refugee camps take into consideration the safety of all of its inhabitants, particularly protecting inhabitants from sexual assault, kidnapping, and other forms of terror. These acts are often, but not exclusively, targeted at girls and women, and frequently result in the victims being ostracized from their community. Psychosocial support is obviously important and required, but better planning and efforts at prevention could mitigate many of these problems fomented in disaster situations.

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Amaratunga and O'Sullivan also point out that over the course of a disaster, there is a change in psychosocial needs. Therefore, the challenge for professionals working in this area is to develop and implement disaster management plans with enough flexibility to deal with evolving psychosocial problems, bearing in mind that psychological difficulties often remain long after other structural aspects of the impacted area are reconstituted. It is my hope that through the efforts of the World Association for Disaster and Emergency Medicine (WADEM) psychosocial and other task force groups, the increasing concern about the psychological and social impact of disasters can be addressed in a manner that will result in specific and more effective plans and policies to deal with these tremendously difficult situations.

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