Disasters, Women's Health, and Conservative Society: Working in Pakistan with the Turkish Red Crescent following the South Asian Earthquake

Andrew C. Miller, MD;[1,2] Bonnie Arquilla, DO[1]

1. Department of Emergency Medicine, State University of New York Downstate Medical Center and Kings County Hospital Center, Brooklyn, New York USA
2. Department of Internal Medicine, State University of New York Downstate Medical Center and Kings County Hospital Center, Brooklyn, New York USA

Correspondence:
Andrew C. Miller, MD
Department of Emergency Medicine
450 Clarkson Avenue, Box 1228
Brooklyn, New York 11203-2098 USA
E-mail: andrewcmiller@optonline.net

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Abbreviations:
ICRC = International Committee of the Red Cross

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Abstract
In recent years, numerous catastrophic disasters caused by natural hazards directed worldwide attention to medical relief efforts. These events included the: (1) 2003 earthquake in Bam, Iran; (2) 2004 earthquake and tsunami in Southeast Asia; (3) Hurricanes Katrina and Rita in the southern United States in 2005; (4) 2005 south Asian earthquake; and (5) 2006 Indonesian volcanic eruption and earthquakes. Health disparities experienced by women during relief operations were a component of each of these events. This article focuses on the response of the Turkish Red Crescent Society's field hospital in northern Pakistan following the South Asian Earthquake of October 2005, and discusses how the international community has struggled to address women's health issues during international relief efforts. Furthermore, since many recent disasters occurred in culturally conservative South Asia and the local geologic activity indicates similar disaster-producing events are likely to continue, special emphasis is placed on response efforts. Lessons learned in Pakistan demonstrate how simple adjustments in community outreach, camp geography, staff distribution, and supplies can enhance the quality, delivery, and effectiveness of the care provided to women during international relief efforts.

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Introduction
In recent years, the plight of women following disasters caused by natural hazards has been a main point of focus in the international medical community. An analysis of relief efforts demonstrated that women and other vulnerable groups may be underserved or even alienated by the very relief efforts that are there to care for them. The development of the *Sphere Handbook* is one means by which the international community has tried to address and improve the care of vulnerable groups during relief efforts. Despite being instrumental in developing tools such has the *Sphere Handbook*, the response to the 2005 south Asian earthquake showed that even the International Committee of the Red Cross (ICRC) and Red Crescent Societies and member groups struggled to implement such ideas into the working construct of an active relief effort. Thus, it is prudent to evaluate the successes and shortcomings of recent efforts to improve the quality of care for vulnerable populations following earthquakes and other events caused by natural hazards.

This paper focuses on relief work by a representative of the Islamic Medical Association of North America working with the Turkish Red Crescent Society in its main field hospital in Muzaffarabad, the capital of Azad Jammu and Kashmir, in northern Pakistan, following the 7.6 magnitude earthquake of October 2005. Despite an admirably organized, staffed, and supplied camp, the ICRC struggled to implement a gender-balanced approach in its relief efforts. In this paper, the efforts by the Turkish Red Crescent's camp in Muzaffarabad are analyzed, and practical solutions using

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simple adjustments in community outreach, camp geography, staff distribution, and supplies can enhance the quality, delivery, and effectiveness of the care provided to women during international relief efforts, are suggested.

Women in Disasters

In recent years, a number of disasters caused by natural hazards have occurred, including earthquakes, tsunamis, floods, hurricanes, and volcanic eruptions. Complex emergencies also are involving large populations. In the wake of these events, the world has witnessed the plight of women refugees and displaced persons. In many countries, women are undernourished and suffer from reproductive problems and their level of vulnerability increases during times of war and disaster.[1] The United Nations High Commissioner for Refugees (UNHCR) estimates that 80% of all refugees are women and children.[2] In Bangladesh, the death rate for female Rohingya refugees was several times higher than for males.[3] Similarly, during the Dhaka City floods of 1998, women and children were the most severely affected.[4] In 1999–2000, the leading cause of death for women of reproductive age among Afghan refugees in Pakistan was associated with maternity. Of these women, many encountered barriers to health care and died from preventable causes.[5] Finally, following the 2004 Indian Ocean Tsunami, the mortality rate for women among the displaced population of the eastern coastal district in Sri Lanka was twice that of men (17.5% vs. 8.2%).[6] These statistics offer a glimpse into how disasters affect the genders differently.

Cultural Barriers

Within any given population, numerous cultural barriers may exist that impede or discourage women from receiving the full benefits of available aid may exist. Issues such as the local view of the role of physicians, the role of women in family and social structures, the dynamics of male:female relations, and the complexities of privacy and personal space all are important. Not all cultures view the practice of medicine and the role of physicians in the same light: relief workers may find themselves serving a patient population with little or no exposure to modern medicine. Similarly, women often find themselves delaying treatment or even sacrificing their health needs in order to care for their children and families. This often was the case in Muzaffarabad.

The cultural dynamics of male:female relations and the issues associated with privacy and personal space may further complicate the situation. During the Dhaka city floods, women reported experiencing "great shame" because they had to live in exposed conditions. They reported feeling concerned and ashamed of being exposed to the "public eyes of men" while performing their daily activities such as bathing, using the toilet, and sleeping. Women living in shelters were concerned about living with male strangers and the associated risk of exposing body parts. Therefore, many women confined themselves to their homes because they felt the outside world was a dangerous place where honorable women were in danger.[7] Similar fears existed for the women of Muzaffarabad. Women reported concerns about having proper bathrooms, a place to wash clothes, or even a water system. Women also reported fear and embarrassment of walking to latrines, which often were far away, and complained that there was no privacy, no mechanism to lock doors, and that they felt threatened by groups of men they encountered en route to the toilets. Both men and women reported lack of privacy as a source of genuine concern.

In a culturally conservative society such as that of rural Pakistan, physicians must understand that even speaking to a male physician about issues of women's health may be an incredibly embarrassing experience for the patient. This is true particularly with regard to gynecological, urinary, abdominal, and/or breast complaints, and/or problems that require areas of the body that normally are covered to be exposed during the examination. Such barriers may prove insurmountable to many women, thus preventing them from seeking necessary health care in a timely fashion. This can be improved by employing female physicians, nurses, and translators to help care for women.

Red Crescent Field Hospital in Muzaffarabad

The Red Crescent camp in Muzaffarabad was well-designed, but slight modifications would have enhanced the care of female patients (Figures 1 and 2). The tents housing the male and female polyclinics were adjacent. The lines for awaiting medical care for male and female patients intermingled. There was no control over who entered the respective tents, and patients commonly crowded inside the entrance, observing the history and physical examinations of the patients in line ahead of them. A cot served as the only examination table, but patients typically were examined while standing or seated in a folding chair. There was no capacity to perform pelvic or obstetrical examinations. The clinic generally was staffed by two local Pakistani women translators and two western physicians—one female and one male. However, it was common for a male to be the only physician in the female polyclinic. Other non-governmental relief organizations working in the region expressed concerns about the organization of these camps and the lack of women's health supplies. The men's and women's clinics typically were located next to each other, or were operated from the same tent in smaller camps. None of the field hospitals were equipped with obstetrical or midwifery supplies.

The care administered in Muzaffarabad following the South Asian Earthquake is a case of how disaster response can adhere to the medical needs of patients through: (1) community outreach and local participation; (2) camp organization; (3) cultural sensitivity; (4) adherence to women's health needs; and (5) patient referral.

In Muzaffarabad, the Turkish Red Crescent Society frequently sent outreach groups into local and remote villages to assess the needs of the people, announce upcoming supply distribution runs, and distribute supplies, food, medication, and tents. Outreach teams generally consisted of a gender-balanced combination of Turkish personnel and local Pakistanis employed by the camp. Social support teams assessed the environmental, social, and psychiatric needs of the survivors.

The camp organization at Muzaffarabad employed local, educated, Pakistani women to serve as translators or

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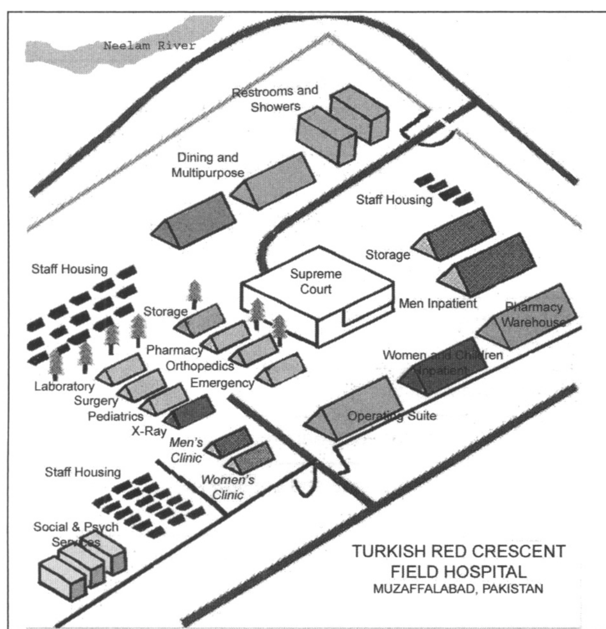

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Figure 1—Diagram of the Turkish Red Crescent Field Hospital in Muzaffarabad, Pakistan. Note the orientation of the Men's and Women's Clinics in relation to each other, the pediatric clinic, and the inpatient facilities.

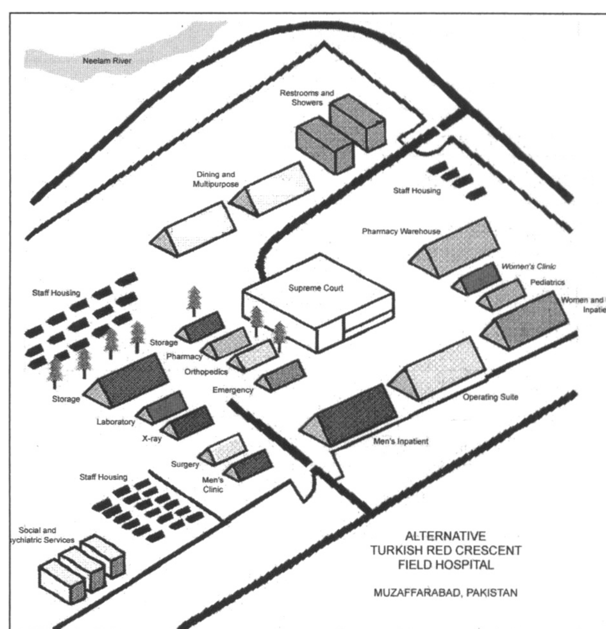

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Figure 2—Diagram of an alternative layout for the Turkish Red Crescent Field Hospital in Muzaffarabad, Pakistan. Note that the women's clinic is now adjacent to the pediatric clinic, and both have been moved closer to the women's and children's inpatient tent. Similarly, the men's clinic is closer to the men's inpatient tent, and geographically removed from the women's clinic.

nurses in the women's polyclinic and inpatient ward. Local translators had good rapport with the patients and were trusted. This reduced the anxiety and apprehension that many patients felt upon entering the tent. Furthermore, by ensuring patient privacy, patients felt safer and hence, were more willing to seek medical attention.

Cultural sensitivity was practiced during patient care. When one took the extra second to briefly explain why certain examinations needed to be performed, patients appreciated it and nearly always consented. Patients generally did not oppose exposing necessary areas during the examination, and prompt re-draping after the examination was appreciated universally.

Equipment and supplies specific to the health needs of women was lacking in some areas. Although innumerable patients who were pregnant or had gynecological complaints were treated, there were no means to perform pelvic examinations. This hindered the ability to treat patients presenting with obstetrical or gynecological complaints like sepsis associated with retained products of conception.

All but one of the hospitals in Muzffarabad were destroyed in the earthquake. A referral system was in place that allowed for critically ill patients, or those patients whose needs exceeded the capacity of the field hospital, to be referred to the local Al-Abbas Hospital. Furthermore, when necessary, patients could be flown to Islamabad, Lahore, or even Karachi.

Discussion

Lessons can be learned from the experience in Muzaffarabad and improvements can be made to patient care for disaster-affected populations. Allowing disaster-affected people to participate in decision-making throughout the project cycle (assessment, design, implementation, monitoring, and evaluation) helps to ensure that programs are equitable and effective. Special efforts should be made to include vulnerable and marginalized groups, and feedback mechanisms should be established. Furthermore, programs should be designed that build upon local capacity and avoid undermining people's own coping strategies.[8] Long-term sustainability can be achieved by strengthening, complementing, and supporting existing services and local institutions so that aid programs do not dissolve once external assistance stops.

Community Outreach and Local Participation

Patient care always begins with the initial assessment. Assessment teams should be gender-balanced, composed of relevant specialists, and engage the population in a culturally acceptable manner. Some individuals or groups may not be able to speak openly, and special arrangements may be necessary to collect sensitive information.[8] Additionally, when possible, local meetings should be conducted in the local language. This did not occur following the Asian Tsunami, when non-governmental organization meetings most often were conducted in English, which tended to exclude local groups.[9]

Once a needs assessment has been performed and a response plan devised, outreach groups notify local communities of the types and extent of available aid. Response strategies should be malleable, so as to allow relief efforts to conform to changing environmental, climatic, and social

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Culturally Appropriate Clothing	Outerwear, underwear, head covering (where appropriate)
Sanitary Supplies	Tampons, sanitary napkins, cloths
Contraceptives	Oral and injectable hormonal contraceptives, condoms, IUDs
Prenatal Vitamins	Should be distributed liberally
Infant Formula	For women who do not, or cannot, breast feed their babies.
Examination Table	--
Examination Supplies	Hand sanitizer, gloves, speculums, lubricant, examination light, paper towels
Doppler Sonography Machine	For prenatal examinations
Midwifery Supplies & Kits	Including instruments for cesarean section
Urine Pregnancy Tests	To assess for early pregnancy and confirm suspected pregnancy
Urine Dipstick Test	To assist in assessing for urinary tract infections, preeclampsia, and eclampsia
Hygiene Kits for Distribution	Including soap, toothbrush, toothpaste, culturally appropriate clothing, and sanitary supplies

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Table 1—Women's health necessities for relief efforts (IUD = intra-uterine device)

conditions to best meet the needs of the people. Such groups may be used to notify locals of the women's health alternatives provided by the organization. These teams also may help to dispel myths and alleviate patient fears and anxiety related to seeking treatment. Patients can be assured of privacy, a secure examination environment, and that examinations will be performed in the presence of a woman, or optimally, by a woman. Additionally, flyers can be distributed to local communities in the native language.

Camp Geography and Organization

Health facilities and services should be designed in a manner that ensures privacy and confidentiality.[8] Treatment areas for men and women should be geographically removed from each other. Additionally, a camp or security employee should be stationed to control patient flow. To preserve confidentiality and privacy, the patient line should not encroach within a reasonable distance of the facilities. Patients only should be allowed to enter the facility when it is their turn or when directed by staff. This will help secure a private and safe examination environment. For patient and physician safety, a woman always should be present during patient interactions. Having a female translator is ideal, as female patients in conservative cultures may feel more comfortable explaining their histories to another woman.

Cultural Sensitivity

Physicians must be educated on and show respect for the cultural norms of the community within which they are working. Appropriate draping and conservative exposure should be exercised during examinations. It is important to respect the patient's modesty. Expose only what is necessary, and when possible, promptly recover that area before moving on to the next area. Similar cultural sensitivity is important when compiling relief supplies. This includes women's clothing and sanitary supplies. A shortage of sanitary cloths and locations to clean them was a significant problem for many women following the floods in Bangladesh. Many women experienced infections from the use of overused or inadequately cleaned sanitary napkins.[7]

Medical care administrators also should communicate the need for the care to patients in an open and understandable manner, as this helped in the provision of health care in Muzaffarabad.

Women's Health

Relief efforts must be able to handle essential obstetrical care, prevent excess neonatal and maternal morbidity and mortality, provide comprehensive reproductive health services, and prevent and manage the consequences of gender-based violence. Approximately 15% of pregnant women will develop complications that require obstetrical care, and up to 5% will require some type of surgery, including cesarean section. Essential obstetrical care services should include an initial assessment, assessment of fetal well-being, episiotomy, and management of hemorrhaging, infection, eclampsia, multiple gestation, breech presentation, and use of vacuum extractors.[8] Comprehensive care, including cesarean section, laparotomy, repair of cervical and third degree vaginal tears, care for the complications of unsafe abortions, and safe blood transfusions should be available at a referral center.

Organizations must be mindful of the need to procure such supplies when preparing for response efforts, and donors must be mindful of the need for such supplies. A list of necessary supplies is provided in Table 1. Emergency supplies must include gynecological and obstetrical sup-

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plies, such as a table, speculums, a portable Doppler sonography machine, and prenatal vitamins.[8,10]

Patient Referral
Lastly, one must establish a referral system to a higher level of care when necessary. Although such systems may not be feasible in situations in which there is no functional local health infrastructure, it is important to remain mindful of these issues and establish an avenue for referral or patient transfer when possible.

Conclusions
Women's health is an important, yet inadequately addressed aspect of disaster planning. Although catastrophic events due to naturally occurring hazards cannot be prevented, the health disparities for women can be mitigated through proper preparation and prompt response. Attention should be given to ensure proper community outreach, camp geography and organization, staffing, and the establishment of referral systems. Emergency supplies must include gynecological and obstetrical supplies.[10] Additionally, women should be included in all stages of disaster planning to help to ensure a gender-balanced response, and organizations should continue to strive to implement tools such as those in the *Sphere Handbook* in their relief efforts. Addressing these issues can assist relief organizations with improving the quality and efficacy of the care that they deliver to the female patient population.

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EDITORIAL REVIEW

Editorial Comments—Disasters, Women's Health and Conservative Society: Working in Pakistan with the Turkish Red Crescent following the Earthquake in Southeast Asia

Carol Amaratunga, PhD

Department of Epidemiology and Community Medicine, University of Ottawa, Canada, and Co-Chair, Psychosocial Task Force, World Association for Disaster and Emergency Medicine

Correspondence:
E-mail: carol.amaratunga@uottawa.ca

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From time to time, one has the opportunity to read a truly informative and sensitive piece of work on disasters and women's health. This article deserves both comment and praise. It is very rare in the literature that a publication genuinely captures "lessons learned" from the field with insight and appreciation of both cultural and gender sensitivity. This article addresses the social imperative for the inclusion of gender as a socio-cultural construct in emergency response and recovery, with particular attention to the unique need for respectful interventions in traditional, conservative societies which value sexual modesty and female vulnerability.

The paper describes the response of the Turkish Red Crescent Society's field hospital in northern Pakistan following the earthquake of 2005. The authors describe how attention to the needs of women and girls can ameliorate and contribute to the care, treatment and support efforts of vulnerable, if not "forgotten populations" in a post-disaster scenario.

The authors share personal insight and experience, and by doing so, contribute not only to our understanding of gender as a determinant of health, but also provide sage practical advice with respect to planning gender-sensitive interventions in the field. They acknowledge that special efforts are required to ensure equitable access to health care services and basic amenities for women and girls, especially those who receive treatment in field hospitals and post-disaster recovery facilities. Populations with multiple vulnerabilities are special populations that require thoughtful, culturally sensitive approaches to healthcare delivery. The paper provides insightful commentary and recommendations for the establishment of field hospitals in future post-disaster situations. The "simple adjustments" to processes of community consultation, staffing, supply requisition, communications and healthcare service delivery to women and girls can yield important, significant returns with respect to health care prevention, as well as equitable and safe access to services.

Based on experiences, the authors provide a convincing case of how women and girls are affected disproportionately during natural disaster events, and how socio-cultural factors affect women and men, and girls and boys, differently during disasters. The vulnerability of women and girls ranges from poor nutrition to issues of personal safety and security in encampments for displaced persons (e.g., the lack of secure bathing and toilet facilities, and the need for adequate feminine hygiene supplies, obstetrical and gynecological services).

The health and well being of women and girls is exacerbated when cultural factors (e.g., physical modesty, may impede or delay access to health services. In culturally conservative societies (those that place high value female modesty, women may be adverse to seek assistance from male healthcare professionals). One of the strengths of this paper is the focus placed on planning for practical aspects of gender-sensitive camp geography, for example, the organization of gender-sensitive medical facilities and services. Furthermore, the "lessons learned" from the Pakistan Muzaffarabad field hospital are generalizable to numerous settings. For example, female patients in conservative cultures require female attendants, translators, and healthcare professionals where possible. As the authors correctly point out, this is important for the comfort of the patient

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and also is an important consideration for the safety of male physicians. The adoption of gender-sensitive ideas and practices contributes significantly to patient well-being and the protection of patient modesty, for example, through appropriate draping and conservative exposure during examinations, the inclusion of female staff, attendants, interpreters, etc.

In short, response and recovery efforts which mainstream gender-sensitive approaches in their planning processes can help ensure that the needs of women and girls are adequately addressed. Proactive, gender-sensitive investments can yield a number of positive benefits, including reductions in maternal and child health morbidity and mortality. Gender sensitive interventions may also alleviate gender-based violence against women and girls. Overall, the paper captures the social imperative for more culturally sensitive, and gender-sensitive, planning, preparedness, response and recovery efforts. Treating culture and gender as determinants of health can mitigate risk factors and will reduce health disparities among women and girls. The paper leads the reader to conclude that the inclusion of culturally sensitive prehospital and disaster medicine in traditional and conservative societies is not only the correct thing to do, it is the right thing to do.

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