INTRODUCTION

On September 21, 1999, the Chi-Chi earthquake struck central Taiwan (Republic of China) at 1:47 a.m. Taiwan is a small, tropical island located 110 miles from the southeastern coast of Mainland China (the People’s Republic of China) (Monaco: International Hydrographic Organization, 1953, p. 33). Situated on the eastern fault line of the Pacific “Ring of Fire,” a group of volcanoes on the edge of the Pacific Ocean, it has been the center of 2,200 earthquakes per year, with 214 that have actually been felt (Taiwan Central Weather Bureau, 2011). Taiwan’s people today evoke the moniker “921” as gravely as Americans speak of “9/11.” Today “921” stands among Taiwan’s most destructive natural disasters in the 20th century.

The earthquake epicenter was located in central Taiwan, Nantou County, 90 miles from the capital, Taipei (CNN, 1999). The earthquake measured 7.6 on the Richter scale, with thousands of aftershocks occurring for the rest of September 1999 (Gittings & Woollacott, 1999). The earthquake initially caused power outages over the entire island that affected telecommunications, water supplies, and electricity. Rock and landslides cut off interior mountains with Tou-Liu Village and Chi-Chi Village particularly suffering extensive damage. Collapsed buildings and debris trapped thousands of people under rubble (Yu, 1999). According to the International Federation of Red Cross and Red Crescent Societies (2001), the “921” earthquake left 2,368 dead and more than 300,000 homeless.

GEOPOLITICAL STRAINS COMPLICATED AID RESPONSE

As various aid groups responded, they became part of a significant geopolitical conflict. Taiwan’s political ties with China and the island’s lack of representation within the United Nations meant that Mainland China intervened to negotiate the reception of international aid. On September 22, the day following the earthquake, the United Nations (UN) Office for the Coordination of

Abstract

Aim: This paper examines the Chi-Chi earthquake that struck central Taiwan (Republic of China) on September 21, 1999.

Methods: Framed within a geopolitical examination, historical methodology utilized primary sources of relief agency reports, US Agency for International Development Fact Sheets, news analyses, and nurses’ voices.

Results: Although the international community and government provided for physical needs, many of the earthquake survivors relied on the compassion and innovation of local hospital nurses, fellow citizens, and religious communities. For the nurses, the authority that being nurses gave them, their innovation, and self-reliance propelled them into duty.

Conclusion: Although Taiwan received an outpouring of international aid, the disaster proved grim. The rugged geography and geopolitical strains complicated the effectiveness of international aid as it arrived hours after the earthquake. The “921” earthquake has significantly affected Taiwan’s national psyche.

Key words: disaster, earthquake, foreign aid, geopolitics, Taiwan
Humanitarian Affairs (OCHA) official, Rudolf Mueller, noted, “We are awaiting China’s official position indicating it would welcome assistance” (International Federation of Red Cross and Red Crescent Societies, 2001). Indeed, the UN had a protocol that recognized Taiwan as a Chinese province rather than a separate political state. Consequently, the UN could not provide aid directly to Taiwan (Lin, 1999). Beijing and Taiwan Red Cross chapters competed to lead aid efforts. The Beijing chapter advised international chapters to consult with Beijing first instead of Taiwan. The Chinese Foreign Minister directly addressed the UN Crisis Meeting on September 22, 1999, to express gratitude to UN efforts “on behalf of the Taiwan people” (Lin, 1999).

Although China’s efforts sparked public outrage among the Taiwanese, who viewed China’s steps as political rather than humanitarian, others saw this as a chance to mend stratified political ties and accept the needed supply and assistance. However, national pride took precedence as Taiwan officials rebuffed Chinese Red Cross offers of rescue supplies and medical teams (Gittings & Woollacott, 1999). Taiwan chose to forgo the advantages of Mainland China’s geographical proximity, although military aircraft and aid could have crossed the Taiwan Strait that separated island from mainland in less than an hour. Taiwan’s refusal of China’s aid may have ultimately prevented crucial assistance in reaching Taiwan at this first stage of the earthquake response.

NATIONAL AND LOCAL RESPONSE TO THE DISASTER

Until international aid arrived, the Taiwanese government and people were on their own. The civil and military governments were first to assume command. Indeed, “921” commemoration services often draw attention to the service provided by the Taiwanese military in the wake of disaster. The military responded to calls within 13 min after the earthquake, even as the Taiwanese government drafted young men, aged 18 years and above (Wu, 2009a). Within 12 h, the government mobilized troops into the affected areas for search and rescue missions, morgue work, and supply distribution. By September 23, the Defense Ministry and the military had dispatched 5,000 soldiers, 10 medical teams, and 12 helicopters to deliver supplies. It established six temporary rescue centers in local stadiums that could accommodate thousands of people (Yu, 1999). Despite the military’s rapid intervention, four aftershocks with a 6.0 magnitude on the Richter scale exacerbated the earlier damage and caused public panic. Taichung City experienced substantial damage and a high death toll, and by September 23, 1999, the mayor reported that most of the ice for mortuaries in central Taiwan were exhausted (Yu, 1999).

Nurses and doctors were among the first-line responders to the earthquake, and they worked in mobile units that activated in the devastated regions. Chu Shang Show Chwan Hospital for example, was dangerously close, just 213 feet, to the Chelengpu fault line along the epicenter. On September 21, moments after the initial shake, head nurse, Chen-Hua Su, rushed to her ward as soon as the shocks minimized. The ward was in total chaos with patients and relatives struggling to evacuate. Nurses on duty looked to their head nurse for guidance regarding the patients on life-support. As thousands of aftershocks rocked the Chu Shang Show Chwan Hospital, they eventually evacuated all 147 patients from the damaged facility (Wu, 2009b).

The Ministry of Health and Welfare and the Department of Health had previously established the Chu Shang Show Chwan Hospital in 1997 to address the dearth of medical resources in the rural county. Yet the damaged hospital could not adequately serve the influx of earthquake victims. In response, a shipping company loaned the hospital 58 shipping containers. In less than 2 weeks, the hospital re-opened as the world’s first temporary “shipping container hospital,” complete with operating wards. The determined nursing staff and hospital board discovered innovative ways to continue serving the community. Yet local conflicts still erupted. The hospital’s vice president, although proud of his hospital’s critical role in aiding local survivors, criticized the government’s empty promises of funding and reconstruction post-earthquake. He called the promises “hot air—rainbows after the rain,” and reflected, “We came to understand that we had to rely upon ourselves” (Wu, 2009b).

Survivors besieged nurses with requests for religious prayers and rites for the dead and missing. And religious support did gradually arrive. In Taipei and Taichung, the Buddhist Compassion Relief Tzu-Chi Association set up 5,000 tents, sleeping bags, and cushions. The religious groups intervened to address the spiritual and psychological distress post-earthquake. Buddhist monks were also present among the rubble chanting prayers for the dead and missing (Yu, 1999).

The massive mortality led Taiwan President, Lee Tung-Hui, to declare a state of emergency in the affected areas on September 25, 1999, 4 days after the earthquake. Backup power generators and other supplies were
depleted, and the Taiwanese government had to shift from search-and-rescue missions to the recovery of bodies and rehabilitating the newly homeless survivors (Chen, 1999). Although the death toll had stabilized, the central region still had a dire need for ice, body bags, electricity, and medical supplies. A rescue worker lamented to a Taipei Times reporter, “There were no telephones, no electricity, no water, not even radios to contact people inside these areas…. There was not even enough cloth and boards to cover the dead bodies” (Chen, 1999). Taiwan’s summer heat, which often lingers into September, complicated efforts as residents ran out of ice and other supplies. Separated families could not rely on the incapacitated telecommunication network for contact (Schiff & Tang, 2000).  

Along with local nurses, physicians, and the military, many civilians arrived to help in the early stages of the disaster, while others contributed donations. When the rescue groups lost telecommunication lines, the Taipei Times reported amateur radio enthusiasts helped contact victims cut off in the interior. Indeed, they pieced together “valuable information for relief agencies” (Yang, 2008).

INTERNATIONAL AID

Mainland China provided clearance for international aid on September 22, 1999, and the earthquake roused a significant global response. More than 700 aid workers consisting of nurses, physicians, and others arrived from 20 countries (Chen, 1999). The Japanese Red Cross and the International Federation of the Red Cross (IFRC) and Red Crescent Societies sent an eight-person team of relief experts, medical personnel, and an IFRC representative from Beijing to assist the local Red Cross. The Thai Red Cross followed with a six-person team. Singapore, Russia, Austria, Switzerland, Germany, and South Korea also deployed search-and-rescue squads that arrived in Taichung City after September 22 (United States Agency for International Development (USAID), 1999). However, many of the rescue teams found that the procedural delay combined with high-mortality rates left a paucity of search-and-rescue opportunities.

The United States’ response came after Taiwan officials formally requested search-and-rescue (SAR) teams. Because of political sensitivities, the request came through the American Institute in Taiwan (AIT), the agency through which unofficial relations between Taiwan and the United States government are handled (USAID, 1999). American aid arrived as a 92-person United States Aid for International Development (USAID) rescue team consisting of disaster specialists from Fairfax County, Virginia, and Miami-Dade, Florida. The Miami-Dade group arrived in Taiwan early on the morning of September 22 and immediately went to work. The following day, the 73-member SAR team from Fairfax arrived and brought 106,000 pounds of equipment, three vehicles, and four search-and-rescue dogs (American Institute in Taiwan, 2017). The Fairfax group, consisting of engineers, emergency managers, physicians, and paramedics, had recently gone to Turkey after a deadly earthquake killed over 15,000 in August 1999 (Chandler, 1999, p. A23). In Taiwan, the American SAR teams were deployed to one of the hardest-hit villages, Tou-Liu, which had experienced a high mortality rate in the initial stages. Washington Post reporter, Clay Chandler, wrote that within 48 h after the earthquake, there were “hundreds more corpses but few remaining signs of life” (Chandler, 1999, p. A23.) The Fairfax, Virginia, SAR group leader, Michael Tamillow, noted that in his years of international rescue efforts, he had never gone to an area with such limited search-and-rescue opportunities. As other international teams’ missions progressed, they found fewer and fewer signs of life. Most departed after a week of deployment.

Although Taiwan received an outpouring of international aid, the disaster proved grim. The rugged geography and geopolitical strains further complicated the effectiveness of international aid as it arrived hours after the earthquake.

FIELD MEDICAL EVALUATION

The “921” earthquake was a key catalyst for triage in Taiwanese field and hospital care. Local nurses also began to evaluate their responses. Shih, Liao, Chan, Duh, and Gau (2002) from the College of Medicine and School of Nursing at the National Taiwan University interviewed 44 on-site nurses about their experiences. Many had been trained in the city and had to improvise in the rural and mountainous regions that were still racked with aftershocks. One reported that “the mountains had changed shape; I was shocked” (Shih et al., 2002a, p. 195). As the nurses dispersed, they often became the sole support in the areas. One nurse recalled (2002):

I realized that people trusted a nurse, rather than me as a person, so much… A 15-year-old boy lost his self-control when his parents’ bodies were dug out. He screamed and cried. No one knew how to comfort him. I was the only nurse there, and people looked to me. Then I held him in my arms, and did my best to comfort him… Why did he trust me? I guess it’s because I wore a nurse’s uniform. I felt so grateful for
being a male nurse and was privileged to help such a needy survivor. . . . I told the gods that I’ll be a nurse forever, and I’ll value the things and the people around me, including myself (p. 195).

This report also exposed many problems. Trainees came in every day, and nurses had little time to gain field experience before they were moved to new sites. The military dispatched supplies and donations to refugee sites but did not inventory them. Nurses had to classify these supplies and encountered impractical donations like sponges and easily spoiled food. Nurses also reported incidences of looting, but they could do very little to intervene (Shih et al., 2002a).

Shih et al. (2002b) conducted another study of nurses’ most “unforgettable rescue experiences” during the recovery phase (Shih et al., 2002b, p. 195). They found that 50% of the nurses listed the prevalence of psychoneurotic syndromes as difficult to deal with. While 43% cited the destruction of national and geographic treasures as problematic, 33% recalled the devastation they felt of finding whole families or village populations buried in the rubble. Nurses (22%) also recalled the inadequate care for homeless children and teens. Others recalled the deterioration of patients who had chronic diseases, while some nurses bemoaned the “selfish nature of human beings” (p. 195). Still, the vast majority (76%) felt rewarded that their efforts had helped others. In another series of eight debriefing exercises, nurses recounted their rescue efforts and proposed practical approaches to future disasters. Their experience in the disaster led not only to personal growth but also to improvement of disaster nursing care (Tsai, Luh, Chen, & Yin, 2000). These studies of field nurses exposed the psychological and behavioral traumas post-disaster, the first-hand chaos, and emergent aid behavior after disasters.

CONCLUSION

The “921” earthquake significantly affected Taiwan’s national psyche. The earthquake exposed how global and local politics influenced the allocation of international, national and local aid in the early stages of the disaster. Taiwan’s political tension with Mainland China complicated the delivery of aid. International groups confronted obstacles reaching Taiwan and the disappointment of high-mortality rates. Government groups combatted the difficult geography of the disaster site, while at the same time confronting internal structural issues and escalating public discontent. Although the international community and government provided aid for immediate physical needs, many of the earthquake survivors relied on the compassion and innovation of local hospital nurses, fellow citizens, and religious communities. For the nurses, the authority that being nurses gave them, their innovation, and self-reliance propelled them into duty.

This is historical research that relied only on public data; therefore, no Institutional Review Board was required.

REFERENCES


