

Policies Influencing Disaster Nursing: A Hurricane Katrina Case Study for Nurse Educators

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Hattiesburg, Mississippi

■ Nicknamed the “Hub City”

- 100 miles from New Orleans, Mobile, Jackson, Meridian, and Gulf Coast
- Convergence of Interstate 59 and US Highways 49, 198, and 11
- Currently considered a rail, trade and industrial center for surrounding timber business and farms
- Population 45,773



Hurricane Katrina

- Landfall on August 29, 2005 in Louisiana
- Category 4 with 145 mph maximum sustained winds
- By 3:00 pm the eye was 20 miles west of Hattiesburg
- In Hattiesburg, Katrina was a Category 2 Hurricane with 95 mph winds



Community Preparedness

- A Red Cross Shelter opened on August 28th
- All MS schools were closed by MEMA on August 29th
- Forrest County Emergency Management encouraged evacuation of mobile homes and low lying areas
- Wal-Mart remained open as late as possible on the 28th to allow people to get supplies
- City Hall was closed and the 29th, but public service employees were told to standby

Damage



- Related to downed trees on roads, houses, and electrical lines
- 324 houses and buildings completely destroyed
- 2,216 structures with major damage
- 6,358 with minor damage
- Electricity was out to all customers for approximately 4 days
- Entire city lost water immediately after the storm

Gasoline

- Gasoline was not available due to a shortage as well as the lack of power.
- For those gas stations that had generators, the lines to get gas were sometimes miles long.
- Some gas stations allowed emergency and hospital workers to 'move to the front of line' to get gas as long as they had an employee name badge.
- Gasoline was stolen out of hospital employee cars.

Schools

- The schools were closed for three weeks
- An added stress was the number of students who enrolled from south Mississippi and Louisiana.
- At the time of the reopening of the schools, 80 evacuee children had enrolled.



Crime

- In the days following the Hurricane, Hattiesburg's 96 Police Officers worked in alternating 12 hour shifts.
- A curfew from 4pm to 6am was initiated.
- Looting was the biggest problem. The 1st report came in before the eye of the hurricane had even passed.
- In 4 days, the police arrested 14 people for looting.

Medical Impact of Hurricane Katrina on Forrest General Hospital (FGH)

- FGH is the only level two trauma center between Jackson and Gulfport in Mississippi
- FGH had difficulty operating in the week following the hurricane due to damage.
- Power and water was not restored until September 1, three days after the hurricane hit.
- Roof damage forced the transfer of 100 patients to Wesley Medical Center in Hattiesburg and to hospitals in Jackson, Vicksburg, Columbus and Mobile.

Medical Impact of Hurricane Katrina on Forrest General Hospital (FGH)

- The Emergency Room remained open even though the hospital was unable to accept new admissions until September 3, five days after the hurricane hit.
- FGH allowed people to take shelter inside its walls on the day the hurricane hit. The next day everyone except patients, their family and staff were sent away to Red Cross shelter.
- The action above created a misconception in Hattiesburg that FGH was closed, causing many people to seek care at Wesley Medical Center.

Medical Impact of Hurricane Katrina on Wesley Medical Center (WMC)

- WMC continued to operate with full services throughout South Mississippi although was placed on lockdown status.
- The hospital lost power on August 29, the day hurricane hit, but was able to sustain itself on generators.
- WMC is located next to a city water substation, so they maintained the scarce resource of running water.

Medical Impact of Hurricane Katrina on Wesley Medical Center (WMC)

- Food and drug supplies were sufficient at WMC.
 - The Centers for Disease Control (CDC) delivered needed medications.
 - The cafeteria served food made through Community support.
- WMC's 225 beds were full during the first week of recovery.
- The Emergency Room treated a record of 225 patients on August 31 and Sept 1.
 - The average for WMC is 90 patients per day.

Wesley Medical Center



Background and Significance

Disaster Nursing has three phases:

Preparedness

Response

Recovery

Protective Factors in Coastal Areas

- In times of disaster there are protective factors that fall into place and help the community continue to function.
- These strengths work to increase community participation in disaster preparation and help to sustain the community.

Specific Protective factors in Hattiesburg, MS

- Local and Federal Aid
 - FEMA, Office of Emergency Management
- Improved hurricane tracking technology
 - Radio and television
- Business and medical partnerships
 - Triad Corporation owns hospitals located in Gadsden, Enterprise, Dothan, Longview, & Lake Charles
- Ministerial community
 - “Roof Riders” & “Patch Teams”

Risk Factors

- These are characteristics or attributes of the aggregate that are associated with the problem or needs of the community.
- When assessing community risk factors, a wealth of information can be obtained by reviewing past hurricanes.
 - Hurricanes Camille, Ivan, Andrew

Risk Factors for Coastal Areas

- Sub-standard housing
 - Lack of uniform building code
- Large immigrant population
 - Language barrier, economic factors
- Evacuation plan
 - Late or inaccurate landfall predictions
- Lack of communication
 - Lack of uniformity between law enforcement

Specific Risk Factors for Hattiesburg, MS

- Southern attitudes
 - Procrastination, Denial
- Storm-related injuries
 - Overflow of patients
- Lack of running water
 - Contributes to health risks
- Lack of fuel
 - Inability to access and provide healthcare

Methods

- Primary Goal: To provide immediate care to the victims of Hurricane Katrina in Hattiesburg, MS.
- Specific Aims
 - Provide hands-on care to patients, family members, physicians, nurses, and support staff at Wesley Medical Center.
 - Publicize the needs of Mississippians when we returned.
- 12 senior student nurses, 1 recent TU graduate, and 3 faculty members made the trip
- Medical supplies donated by local hospitals

Planning the Trip

- We received approval from several sources
 - Director of School of Nursing
 - Dean of the College
 - Associate Provost
- The details were finalized within two hours of the request
- 5 and 1/2 -hour drive
 - Debris and damage
 - Gas shortage











Disaster Nursing at Wesley Medical Center

- Volunteers were housed in WMC's Wellness Center
 - Employees and volunteers slept on the floor or air mattress
 - Allowed a 3-minute shower daily to conserve water
- WMC Staff
 - Were exhausted; many had worked non-stop since the hurricane
 - Were concerned for their families and homes
- Incident Command Center was established that managed the available resources.



1 TOWEL
PER PERSON
FOR THE LENGTH
OF YOUR STAY



SHOWERS
AVAILABLE
3-MINUTE TIME LIMIT TO
CONSERVE WATER

The Emergency Room

- Two levels of care
 - Trauma (acute) and fast-track (clinic)
 - Chainsaw injuries, mental illness, chronic illness, people needing medications, and those seeking shelter, food, and water
 - Waits of up to 8 hours
- Student nurses worked under an instructor performing direct patient care

Labor & Delivery/Nursery

- A higher number of deliveries occurred due to the stressors of the disaster
 - 14 NICU babies were transferred from Forrest General Hospital
- Student Nurses assisted in caring for mothers and babies
 - Triage, admissions and discharges, assessments, and deliveries
 - Feeding, rocking, and bathing babies

Medical-Surgical Unit

- A new unit was created from the pediatric floor
 - Patients were primarily adults transferred from evacuated hospitals in Slidell, Louisiana
- Student Nurses worked with an instructor
 - Performed direct patient care
 - Assessment, medications, procedures
 - 3 RN's and 3 student nurses cared for all adult patients (as many as 16)

Aftermath

- Over 800 hours of care was donated during the experience
- Students publicized the need for donations through TV and newspaper interviews when we returned



Educational Implications

- As instructors we teach our public health nursing students that the level of knowledge possessed by nurses supports the response and recovery of the community after a disaster (Stanhope & Lancaster, 2004).
- The International Nursing Coalition for Mass Casualty Education (INCMCE) has developed a set of competencies to assist nurse educators in including mass casualty incidents (MCI) in nursing curricula.

Mass Casualty Incidents

- The competencies focus on the areas of:
 - Critical thinking: decision-making and prioritizing
 - Assessment: for self, response team, and victims
 - Technical skills: safe performance
 - Communication: own role and others
 - Core knowledge: health promotion, risk reduction, disease prevention, health care systems and policy, illness and disease management, health care technologies, ethics & diversity
 - Professional role development: first responder, etc...

in order to ensure a competent nurse workforce in response to a MCI (INCMCE, 2003).

Ethical Implications

- The nurse's primary commitment is to the patient, whether an individual, family, group, or community.
- The nurse promotes, advocates for, and strives to protect the health, safety, and rights of the patient.
- The nurse is responsible and accountable for individual nursing practice and determines the appropriate delegation of tasks consistent with the nurse's obligation to provide optimum patient care

(ANA Code of Ethics for Nurses with Interpretive Statements, provisions 2-4).

Practice Implications

- Public health nursing practice includes an obligation to actively reach out to all who might benefit from an intervention or service.
 - This is inclusive of those from high-risk and vulnerable populations.
- (Scope and Standards of Public Health Nursing Practice, 1997)

Federal Policy

- The U. S. Department of Health and Human Service (USDHHS) declared a public health emergency for Louisiana, Mississippi, and Florida. (USDHHS, August 2005)
- This enabled the waiver of certain requirements, including:
 - Providers were paid for services rendered regardless of Medicare and Medicaid program requirements in the aftermath of the Hurricane.
 - Hospitals were allowed flexible use of beds without negative certification or payment consequences.

Federal Policy

- Emergency departments were not held liable for the Emergency Medical Treatment and Labor Act (EMTALA) for transfer of patients to other facilities.
- Normal licensing requirements for MDs, nurses, and other professionals who crossed state lines to provide care were waived. (USDHHS, August 2005)

Federal Policy

- Some HIPAA privacy rules were waived in order to communicate with family members of patients about patient status.
 - Treatment: Health care providers could share patient information as necessary to provide treatment.
 - Health care providers could share patient information as necessary to identify, locate, and notify family members, guardians, or anyone else responsible for the individual's care of the individual's location, general condition or death. (USDHHS, September 2005)

(Fulbright & Jaworski, L. L. P.)

Federal Policy

- The Joint Commission revised the Emergency Management Standards for Hospitals, Critical Access Hospitals, and Long Term Care programs, effective January 1, 2008 (Center for Health Policy, 2007).
 - Changes are compatible with the National Incident Management System's "all-hazards" approach
 - When there is an increase in care needs with a decrease in usual support and resources.

Federal Policy

- Joint Commission changes involve increased flexibility with a 'scalable' response to disasters in six areas:
 - Communication
 - Resources and assets
 - Safety and security
 - Staff responsibilities
 - Utilities management
 - Patient and clinical support activities
- Two new standards: a) grants hospitals ability to assign responsibilities to volunteer practitioners and b) allows organizations to grant privileges to volunteers eligible to be licensed practitioners (Center for Health Policy, 2007).

Work Release During Disasters

- The Center for American Nurses has released a statement for adoption that includes employer guidelines and RN rights and responsibilities based on the ANA's companion documents:
 - Registered Nurses' Rights and Responsibilities Related to Work Release During Disaster
 - Work Release During a Disaster: Guidelines for Employers (ANA, 2002a and 2002b)
- The guidelines assert that RNs are integral to the success of disaster response and recovery and should be released, when possible, to participate in federal, state, and regional organized disaster response teams. (Center for American Nurses, n.d.)

A Priceless Experience

- Pre-event planning is critical!
 - Participate in emergency preparedness plans
 - Know the legal basis for providing care
 - Become knowledgeable about provision of care during disasters
 - Be realistic as to your own competencies