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Individual and organizational interventions after terrorism: September 11 and the USS *Cole*

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The Medical Corps of the United States Navy has a longstanding history of providing psychiatric services to Navy personnel and civilians following disasters (Moore and Dembert, 1987). Support missions have deployed following collisions, fires and explosions at sea, aircraft crashes, and natural disasters. The Navy Special Psychiatric Rapid Intervention Teams (SPRINT) have been utilized for these missions during the past two decades (McCaughey, 1985, 1987; Golberg *et al.*, 1996). These teams are multidisciplinary and designed to deploy rapidly to disaster sites anywhere in the world. The teams are composed of psychiatrists, psychologists, social workers, psychiatric nurses, and enlisted psychiatric technicians. At the Navy's tertiary care hospitals these teams are preselected and receive training in postdisaster interventions. These teams can be augmented as with active duty and reservist members. At overseas hospitals, SPRINT teams are often assembled as needed with training provided at the time of deployment.

SPRINT teams have multiple objectives. They provide situational assessment of the psychological effects of traumatic events, direct support of affected individuals and units, brief psychiatric treatments, and consultation to commanders on how to mitigate negative emotional and behavioral outcomes.

The Navy also has the capacity to provide extensive medical, surgical, and psychiatry support around the world through deployment of its two hospital ships, USNS *Comfort* and USNS *Mercy* (Pentzien and Barry, 1992; Hooper, 1993; Dinneen *et al.*, 1994; Slusarcick *et al.*, 1999a, b). One ship is available on each coast of the United States. They are staffed by the medical personnel at the National Naval Medical Center in Bethesda, Maryland and the Naval Medical Center in San Diego, California.

In 2000 and 2001 the Navy experienced a new source of psychological stress, terrorist acts against Navy personnel and civilians aboard ships overseas and in the

United States. Three psychiatric deployments occurred; to Yemen and to Norfolk, Virginia following the bombing of the USS *Cole* in 2000, and to the Pentagon and New York City following the attacks on September 11, 2001. Each mission was unique, but there were elements common to all. These elements include planning and training, situational assessment, definition of the mission, logistical considerations, establishing the role as a consultant, supportive and consultative interventions, and terminating the deployment with appropriate follow-on services defined. The following sections demonstrate how each of these elements was approached in vastly different postdisaster environments.

The attack on the Pentagon

On September 11, 2001 at 8.10 a.m. American Airlines Flight 77 departed from Washington Dulles airport bound for Los Angeles with 58 passengers and 6 crew members. The plane was hijacked somewhere over West Virginia or Kentucky, reversed course, and was flown into the Pentagon at 9.43 a.m., minutes after the United States had witnessed the crashes of American Airlines Flight 11 and United Airlines Flight 175 into the North and South towers of the World Trade Center in New York. No one on the plane survived. Its impact and the resultant fire and building collapse resulted in the death of 125 military and civilians who worked in the Pentagon. Of these about one-fourth were assigned to Navy units. Survivors were exposed to death, danger, destruction, and dislocation.

Planning, preparation, and training

The National Naval Medical Center in Bethesda, Maryland is a tertiary care teaching hospital located approximately 10 miles from the Pentagon. It is also the center of one of the Navy's SPRINT teams. The team was augmented to include a total of three psychiatrists, two psychologists, two psychiatric nurses, two chaplains, and two psychiatric technicians. Eight psychiatry residents also participated on a part-time basis. Each member of the team had training in principles of postdisaster debriefing techniques. At the time of the Pentagon attack, about half of the team members had previously been deployed with a SPRINT team; one member had served as the team leader of the Sigonella team that had responded to the USS *Cole* attack. Psychiatry residents working with the team initially observed team interventions until such time as they were able to demonstrate competence in assisting with debriefing activities. They provided a large percentage of individual supportive services and evaluations for use of pharmacological treatments.

Senior hospital leadership was immediately aware of the Pentagon attack. Many were watching televised news releases from the attack on the World Trade Center when word was received that an aircraft had struck the Pentagon and that there was

an ongoing threat of additional terrorist attacks. Hospital staff was placed on an alert status and ordered to remain at the hospital and prepare to accept casualties from the Pentagon and other potential sites. The SPRINT team was notified that it should be ready to deploy within 24 hours. Because of the complexity of the Pentagon command structure and high rank of officers in that structure, the SPRINT team was augmented with a senior psychiatrist who had experience with multiple prior similar missions and who had background experience with working with senior Navy leadership.

The Arlington Annex is a federal office building located approximately one half mile from the Pentagon. It also contains a small Navy clinic that provides care to Pentagon and Annex staff. Much of the building had been vacated when a major component of the Navy staff had been relocated to offices in another state during the preceding two years. On September 12, 2001 the clinic requested deployment of the SPRINT to their site. At 9.00 a.m. the final composition of the team was determined. The team arrived at the Annex at approximately 1.00 p.m. Arrival was substantially delayed because major travel routes near the Pentagon had been blocked. Security was greatly enhanced and this resulted in the closure of parking lots at the Pentagon and at the Annex. Additionally, all nonactive duty personnel who did not have federal building passes were banned from the buildings. Active duty members entering the buildings had to produce two forms of picture identification, sign in, and have all packages searched.

Situational assessment

The team arrived with minimal information concerning the nature of the attack, the number killed or wounded, or the nature of the exposures of the survivors. The team met with the clinic staff, but they too had limited information. A senior Navy physician serving as the preventive medicine officer to the US Marine Corps learned that the team had arrived and offered his assistance. He was highly familiar with the mission and assets of SPRINT as a result of working with one of the senior psychiatrists on a planning committee to establish doctrine for operational stress management. He was able to brief the team on the nature of the attack, number of deaths, injuries, and disruption that had occurred at the Pentagon. He also arranged for the team to meet with the senior Navy physician assigned to the Marine Corps. This contact greatly accelerated the team's ability to conduct its assessment and begin work.

The SPRINT mission was defined by the attack and the ongoing threat. The Navy command center in the Pentagon had been destroyed and had been relocated to the Annex. Virtually no Navy personnel remained in the Pentagon. They were being relocated to the Annex or to other federal office buildings in the area. In addition to the Annex, there were at least four other major sites that were going to house

displaced navy personnel. The Navy staff was operating at a wartime tempo, with most active duty members working 12 to 14 hours per day and often working on the weekends. The Army and Air Force were establishing separate psychiatric teams to work with the Army and Air Force staff at the Pentagon.

The mission defined

The team based its operation in the Arlington Annex and provided outreach services to the other sites. Three levels of services were provided: informational/educational briefings, group debriefing, and individual supportive services. These services were provided to beneficiaries of the military health care system and to civilian employees. Beneficiaries could also be provided psychiatric and medical services. Civilian employees were referred as appropriate to providers in their health insurance programs.

Logistical considerations

In order to operate effectively the team required office spaces, telephone communications, debriefing rooms, and computers with database, word processing, and email capabilities. The team utilized cell phones initially and throughout the operation. The clinic put the team in contact with building management personnel and within 24 hours staff at the Annex had provided all other logistical support. The team established databases with contact points, appointment schedules, and running totals of services provided to each operational unit. The team obtained use of a government van for transportation to other sites. With increased security at all government office spaces, new identification cards and parking permits were required. These were obtained with the assistance of the Annex clinic staff.

Despite a well-planned approach, the dispersal of Navy offices in the capital area resulted in a challenge. Travel between sites often required up to an hour and finding the offices at other sites was often difficult. Some meetings had to be rescheduled.

Establishment of consultant role and credibility

The team began to perform informational briefings on September 13, 2001. The plan was to have one or two team members meeting with groups of between 10 and 80 individuals to provide information about the availability of services and the nature of physiological, psychological, and behavioral symptoms that might be experienced and recommendations for managing these. During the first meeting six individuals attended. No one attended the second scheduled meeting and the team recognized that the operational tempo and mass relocation activities required a different type of approach.

Senior team leadership met with senior Navy leadership to obtain their sponsorship and support. Coincidence again played a role. One of the team members had previously worked with the aide to the Director of the Navy Staff. The aide arranged

for members of the team to meet with the Director. She posed two questions: What evidence did the team have that its interventions had a positive effect, and how could we justify pulling personnel from their jobs for one to two hours as the country prepared to respond to the terrorist attacks? The team could not provide scientific data, but was able to persuade her that units involved with prior SPRINT interventions routinely provided positive feedback about the nature of the interventions. The team also agreed limit the amount of time required to provide informational briefings. The Director endorsed the SPRINT mission and passed information to the leadership of all major Navy commands in the national capital area.

With command endorsement the work of the team rapidly increased. During the next two weeks the team ran between four and 10 debriefings each day. These debriefings involved one to three team members and three to 30 participants. Generally these were performed in work groups with the goals of determining the experiences of the members, lessons learned, and the nature of symptoms experienced. This provided an ongoing situational assessment. Another goal of the groups was to enhance communication within groups to foster the process of 'natural supports.' Additionally, some participants used this setting as a means of self-referral for individual supportive services. Leaders who participated were able to find out first-hand how their workers were doing.

Communication and ongoing consultation

Approximately every two days the team leadership transmitted a situation report via email to the executive assistants of the senior Navy leadership. These reports outlined the nature and location of the team's activities, number of contacts made, and a general description of findings. The reports also outlined the process for obtaining SPRINT services. Copies of the reports were forwarded to the offices of the Navy Surgeon General so that his staff was updated on the potential need for additional medical assets. Senior team members also communicated with the Army and Air Force mental health units operating at the Pentagon and at other sites.

Nature of findings

SPRINT team members estimated the following exposure information from their interactions with the survivors. Within the Navy population approximately 20 percent were in direct danger of death or serious injury, and 20 percent knew someone who was killed or seriously injured in the attack. Nearly 100 percent perceived an ongoing threat of additional attacks during the next few hours and nearly 100 percent had colleagues or friends who worked in the Pentagon. It took from several hours to days to determine the number of casualties in each operational unit. Nearly everyone faced significant disruption to his or her work routine. Approximately 20 percent had their offices destroyed and lost personal possessions, 40 percent were

dislocated transiently or permanently, and 80 percent were forced to reconfigure their offices to accept those dislocated from the Pentagon. In addition, a number of survivors witnessed the plane, the crash, or the resultant fire from their sites at the Annex, Henderson Hall, or Crystal City. It took many individuals hours to contact their families to assure them that they were not harmed.

The following symptoms were reported during and after the attack: transient sleep disruption; peritraumatic dissociative symptoms (feelings of unreality or disturbance in the passage of time); a heightened degree of vigilance or autonomic arousal; intrusive thoughts about the attack that were either spontaneous or triggered by external stimuli; bereavement; anxiety about additional acts of terrorism; and fatigue lasting several days. In summary, there were multiple levels of exposure and diverse psychological and physiological responses. Nearly equal number of individuals received supportive intervention as did not, although it is not known if these groups were equally exposed or equally distressed.

Termination of team operations

By the third week of operations the team had recorded over 1800 contacts. At this time the number of new scheduled contacts began to drop to fewer than 20 per day. In addition, relocation of Navy staff to the Annex had placed office space at a premium. The majority of contacts were at sites other than the Annex. There was no longer a need to maintain a command center at the Annex and remaining group and individual services could be scheduled as needed. The team developed a plan to stand down the command center and to schedule additional services through the Behavioral Health Clinic at the National Naval Medical Center. This plan was communicated through the situational reports to the executive assistants and with their concurrence it was executed. During the following three weeks approximately 20 contacts per week were scheduled and a small number of individuals were followed individually. In total, the team had approximately 2000 contacts. The majority of contacts were in informational briefings and group debriefings. No member of the Navy staff was hospitalized for psychiatric reasons. There was minimal use of psychiatric medication. A few individuals were provided with medication to assist with sleep difficulties during the first few days following the attack.

Ongoing assessment and health surveillance

Psychiatric consequences of traumatic experiences may often be delayed for weeks to months following the experience. There was little evidence of ongoing psychiatric illness or emotional difficulty. A systematic, Pentagon-wide surveillance project was initiated, and the results of that project are under analysis. Senior Navy leadership has been reminded that ongoing care is readily available through the military hospitals and clinics in the national capital area.

Navy response to the World Trade Center attacks

In the wake of the World Trade Center attack, the United States Navy deployed USNS *Comfort* to provide medical support services to the City of New York. The urgency with which the *Comfort* deployed reflected how swiftly the tragedy struck the United States. Indeed, this was the first time an attack upon Americans was shown in 'real time.'

Predeployment

The National Naval Medical Center announced on September 12 that the USNS *Comfort* would deploy. As one of the Navy's two hospital ships, the *Comfort* is 894 feet long and displaces 70 000 tons. It has 12 operating rooms and a capacity of 1200 beds, including 80 intensive care beds. Depending on the nature of the mission, the ship deploys with various configurations of staff. During the 36-hour period prior to sailing, there were multiple negotiations as to the level of deployment as well as the mission of ship upon deployment. During this time the behavioral health team of the ship was briefed by a senior psychiatrist who had served aboard the *Comfort* during its previous deployment during the Gulf War. He was able to give specific examples of ways that behavioral health was used and supported while it served in the Gulf in 1991 (Dinneen *et al.*, 1994).

Additionally, the team received educational materials from the Center for the Study of Traumatic Stress at Uniformed Services University of the Health Sciences. These materials included articles and book chapters regarding acute stress disorder and military personnel's response to crisis and provided information that would be used by the team during deployment.

They specifically addressed the need for the internal care of the staff and crew deployed aboard ship and stressed how morale, warfare, and mental health are tied in with one another and need to be rigorously monitored during a deployment, especially an emergency deployment such as this. On Friday, September 14, the 250-bed contingency platform for the *Comfort* loaded buses to meet the ship at Earle, New Jersey. An additional psychiatrist, a psychiatric nurse specialist, and an additional psychiatric technician augmented the behavioral health team, based on the command's concern that mental health would be of utmost importance during this deployment.

Prior to departure of the ship to New York, it was determined that extensive medical and surgical assets were not needed. This prompted return of the vast majority of the contingency personnel to National Naval Medical Center. The mental health team remained aboard and deployed to New York City. This team was composed of two psychiatrists, a psychologist, a nurse clinician, and three enlisted psychiatric technicians.

Logistical considerations

The USNS *Comfort* was located at Pier 92 (51st Street and Westside Highway) approximately 2½ miles north of the World Trade Center. This distance led to fewer rescue workers traveling to the ship than was initially anticipated. Additionally, the Office of Emergency Management was located at Pier 92. It had been relocated following the collapse of its offices located at World Trade Center Building 7. Transportation between the disaster site and the *Comfort* was established within 48 hours of the arrival of the ship. The *Comfort*'s constant location facilitated the provision of care and services to rescue workers as well as support and care of the ship's personnel. No personnel were sent to isolated locations, and there was a constant base for all activities.

As part of the initial assessment of the *Comfort*'s role, an individual was assigned to provide liaison between the ship and the New York City Office of Emergency Management. The Office of Emergency Management served as the command center for the organization of the rescue and relief efforts at the World Trade Center: it also became the central coordinating organization for peripheral services such as the *Comfort* and the American Red Cross. They used Public Health Service officers assigned to New York City as their primary medical and psychiatric staff. These professionals along with the New York Police Department and Fire Department's behavioral health care systems provided the primary mental health care during this disaster. As part of the initial assessment the Public Health Service determined that it had adequate staff to handle the initial demands of the rescue workers at the site. The behavioral health contingency of the *Comfort* was asked to remain with the ship and provide care to all workers who came to the ship for relief services.

In keeping with traditional SPRINT operations, the mental health team invited participation by the two chaplains aboard. The chaplain's role has been long understood within the Navy to be dedicated to the internal care of the ship's needs, especially the morale and welfare of the ship as a whole. The team also actively encouraged the role of the enlisted psychiatric technicians. They had great insight into the below-decks atmosphere and morale of the ship.

Within four days of deployment the Public Health Service noticed the large number of rescue workers who were coming to the *Comfort*. As a result they provided two social workers from the US Public Health Service to augment the staff aboard the *Comfort*.

Upon arrival and organization of the team on September 15, one member of the team provided instruction on two models of postdisaster intervention, the Critical Incident Stress Debriefing model (CISD) and the National Organization for Violence Assistance model (NOVA). The team trained as a whole on how to organize and manage debriefing systems and discussed group and individual session's

systems and back up plans. The team prepared handouts adapting educational material that had been published by the Washington DC Public Health Service and downloaded from the Internet. These handouts were available to all rescue workers as they registered aboard the ship. The handouts were also passed out on routine basis by the behavioral health team during face-to-face contact with the rescue workers, Office of Emergency Management staff, and especially with police, fire department and Emergency Medical Service supervisory personnel. These materials emphasized the needs of the individual to recognize their symptoms and the needs of the supervisor to support their personnel.

Situational assessment

On September 15 the first rescue workers and emergency personnel were brought aboard the ship for meals, support, bedding, medical care, relaxation, and debriefing. All members of the team actively engaged individuals and small groups of people while they were in the dining facility. For many workers this was their first hot meal in three or four days. What later became known as 'coffee cup therapy' started as the need to assess the overall well-being of the rescue workers. The team assessed amount of rest and sleep, amount of down time, number of meals, time away from home, and rate with which they returned to the rescue efforts at the World Trade Center. It was evident that most of the workers needed better food, more water, and more rest. Though many would admit to stress, sadness, and grief over the attacks at the World Trade Center, most acknowledged that their first and overriding concerns while aboard the *Comfort* were to supply their more primary needs. Indeed despite significant outreach by the behavioral health care team to engage in traditional debriefing groups, no individual persons or small groups of people volunteered to join any debriefing groups.

Since no one chose the group therapy approach, the best alternative that could be offered was to continue to offer the individual and small group treatments that were started during the assessment phase. Specifically, a behavioral health care worker would sit down with small groups of individuals in the dining facility. These people would be initially engaged in discussions of mundane or naturalizing subjects: weather, sports, or individual history. This allowed for not only a return to a more natural expression of emotion but also rapid rapport building between the behavioral health care personnel and the rescue workers. This also decreased the isolation of rescue workers. In an effort to decrease isolation many of these individuals were assessed or brought in with members of their natural teams. Often if the individual who was sitting alone was a policeman, firefighter or Emergency Medical Service worker they would be united with somebody else from their discipline while in the dining facility. This enhanced natural debriefing with peers as the discussions turned to the World Trade Center disaster. They discussed their individual reactions

and provided normalizing reactions for one another by talking about how each had been harmed, scared, or overwhelmed by the things that they saw, heard, or felt while at the World Trade Center.

Parallel to the work in the dining facility, the behavioral health team continued with the more traditional clinician's role in the medical facility. Typically they saw people who were having greater difficulty coping. Each received individual assessment and counseling. Most often they were given the same instructions given to those in the dining facility, especially the need to avoid isolation.

Among the unusual and surprising things found during initial treatment was the number of rescue workers who had been previously diagnosed with mental illness. Some saw the *Comfort* as a place of refuge and support and sought care there despite having an already established care system. After careful assessment, these people were directed back to their traditional supports.

Challenges

Some challenges noted during the *Comfort*'s deployment to New York City were the result of the diversity of the various departments supplying the rescue and relief efforts to New York City. Specifically, as people reported aboard the *Comfort* they came in twos, threes, and fours and rarely with any supervisors. This lack of any central authority led partially to the lack of intervention groups. Conversely, for good or ill, the National Guard officers held the authority or persuasion to order personnel to attend group therapy at the Manhattan Armory. Another challenge faced by the *Comfort*'s initial intervention system was the coordination with the rescue workers' own internal systems for behavioral health support for the police and fire departments of New York City. The Police Department and Fire Department had behavioral health care workers available in their squad houses and on work shifts. They commonly used social workers and other counselors when there were particularly bad outcomes to an incident within any squad, work shift, or team. This system continued to function throughout the *Comfort*'s time in New York. The Public Health Service augmented those personnel in the firehouses and the police stations when necessary.

Another challenge that caused a shift in the focus of the *Comfort* was a change in the types of workers at the recovery site. As the work progressed from rescue into a recovery phase, the City of New York consolidated the number of workers at the site. Crews that had come from out of state or that had been moved from different parts of the city were relieved. These personnel, many of whom had stayed aboard the *Comfort*, were released to go home. Starting on September 20, 2001 many of the personnel who were seen on the *Comfort* were 'already supported.' These included personnel from the Office of Emergency Management at Pier 92, Air and Army National Guard, New York State Militia, and local construction workers.

The media was pervasive throughout the time of the *Comfort*'s deployment in New York City. The media portrayed the sailors of the *Comfort* as war heroes. Unfortunately the media also interrupted care in the ambulatory medical facility and in the dining facility when they attempted to interview rescue workers being seen by the behavioral health care or medical teams.

Collaborations

Collaboration was established between the *Comfort* and the US Public Health Service. The Public Health Service had a majority of the behavioral health care personnel assigned to disaster work. They had the infrastructure to support their behavioral health care workers and also had the organizational support of the local government. The *Comfort* team provided debriefing services for some of the Public Health Service personnel who had provided medical care at the disaster site during the early phases of the recovery operation.

The second group with whom the *Comfort* collaborated was the Disaster Psychiatric Outreach group of New York City. This group, organized by Dr Tony Ng, was a collective of psychiatrists and psychologists from the state of New York who had organized in the 1990s toward providing behavioral health care in the event of a disaster. These personnel provided mental health care directly to the rescue workers at the World Trade Center from September 12 until after the *Comfort* was ordered home. During the time that the *Comfort* was stationed in New York City, the Disaster Psychiatric Outreach group noted that they were becoming overwhelmed with the amount of work that was involved. Their health care personnel also needed to have time off and to take care of themselves. For the last three days in September, members of the *Comfort* team served with these mental health care providers at the recovery site providing behavioral health care needs to the remaining search and rescue teams and construction workers.

The *Comfort* also worked collaboratively with the Air National Guard, the Army National Guard, New York Militia, and the Army Corp of Engineers. These groups were called upon by the City of New York to provide support services, security services, and also infrastructure support to the rescue efforts at Ground Zero. These personnel were housed aboard the *Comfort* and the behavioral health care team provided debriefing for these groups. Each of these groups had good internal structure and internal behavioral care resources. They required little in the way of direct treatment from the behavioral health care team.

Internal care

The personnel aboard the *Comfort* required less care than had been initially expected. In part this was due to the brevity of the tour ($2\frac{1}{2}$ weeks) as opposed to the 8 months that the *Comfort* had deployed during the P Gulf War. Additionally

there were fewer total staff aboard the ship in comparison to the P Gulf War. Lastly, the work of the Commanding Officer and Executive Officer in establishing a ship routine supported the personnel of the *Comfort.* Within a matter of two days the ship established a three-section watch. The Morale, Welfare, and Recreation personnel started functioning for relief and recreation during the times of liberty. A majority of the sailors aboard the *Comfort* maintained their usual exercise routines as well as increasing the amount of training for their duties aboard the *Comfort.* The ambulatory medical facility established daily didactics that bolstered the spirits and training of the corpsmen attached to that division. The enlisted psychiatric technicians through informal interactions in the berthing spaces did much of the care of the *Comfort* personnel. Through their contacts the behavioral health care team and ultimately the command was made aware of issues that were disquieting to the sailors aboard the *Comfort.* The command staff addressed these issues so that the sailors could return to their support roles.

The behavioral health care team established a series of group gatherings held every other day. During these meetings the chaplains and behavioral health care workers debriefed one another. Specific issues that were addressed during these debriefings included the exposure of personnel to traumatic images from the television, sharing of information and lessons learned, and realignment of personnel due to changing conditions. Senior clinicians experienced in postdisaster work at the National Naval Medical Center and Uniformed Services University of Health Sciences also provided support from a distance.

The attack on the USS *Cole*

A bomb-laden boat detonated alongside the USS *Cole* while it refueled in the port of Aden, Yemen on October 12, 2000. The destruction of the ship's galley, senior enlisted dining facility, and numerous propulsion and equipment spaces below the waterline killed 17 sailors and injured 34 more. Survivors worked around the clock for the next 96 hours, braving smoke, flooding, power loss, and the equatorial heat to stabilize the ship, stabilize the wounded, and re-establish security. In the immediate aftermath, they were unable to fight back, contact other ships, or get under way.

Planning, preparation, and training

The SPRINT at Sigonella Naval Hospital (located near Catania, Sicily) is composed of a mix of primary care providers, mental health providers, and administrative support personnel. Training includes elements of individual and group debriefing, situational assessment, and command consultation (Table 6.1). The team had responded to over one dozen small-scale incidents in the two years prior to the *Cole*

Table 6.1 Elements of Intervention

Situational assessment and triage
Education
Counseling
Debriefing
Command consultation and leader education
Group and individual support
Stress management

attack. As recently as August 2000, a Gulf Air jet crashed on approach to the Bahrain International Airport and the Sigonella SPRINT deployed to provide stress management to Bahrain-based US military personnel who assisted in the body recovery effort.

When news of the attack on the *Cole* reached the hospital, the team was placed on alert for possible deployment to Yemen. The psychiatrist was placed in charge of the team. Nine individuals were selected for the deployment. All were ready for departure within 12 hours. Immunizations were brought up to date and prophylactic treatment for Rift Valley fever was prescribed.

Situational assessment

The team flew to Aden, Yemen on October 13 and was placed under the command of the on-site senior medical officer. Team members were housed with other military and civilian personnel in the Aden Hotel. Yemeni soldiers and US Marines provided local security. The team leader met with medical personnel and chaplains who had made trips to the site and obtained the following information: (1) the recovery effort chain of command; (2) the extent of the *Cole* casualties (roughly one-sixth of the crew, with 12 dead bodies still pinned inside the wreckage); (3) the security of the remaining crew (perimeter security had been established, but it was impossible to rule out the possibility of further attack); (4) the organizational makeup and leadership structure of the *Cole* crew (21 divisions organized into five departments); (5) affected organizations (the *Cole* crew, Norfolk Naval Shipyard workers and Navy divers extracting the deceased, FBI investigators collecting evidence); and (6) the tentative timeline for the recovery effort.

The mission defined

The team decided to offer group interventions to the affected organizations, emphasizing stress management, normalization of stress symptoms, and the encouragement of social support.

Logistical considerations

The *Cole* was located 10 miles from the hotel and reachable only by armed convoys, which were difficult to arrange. Team members were ordered to wear civilian clothes to lessen their risk of becoming terrorist targets. One week after the attack, the base of operations for the relief operation was moved to the USS *Tarawa*, an amphibious assault ship located outside the harbor. This would greatly complicate access, so the team extended its local presence by remaining with the US Marines who had established a secure perimeter on the beach adjacent to the *Cole* anchorage. The team met every morning to plan its interventions for the day and met every evening to discuss the day's operations and 'debrief the debriefers.' The team leader briefed the operation's medical officer once or twice per day, the Sigonella Naval Hospital Commanding Officer by telephone every evening, and the Joint Task Force Commander once per week.

Establishment of consultant role and credibility

An 'advance party' consisting of the team leader, team administrator, and senior enlisted member traveled to the *Cole* on 15 October. The *Cole* Commanding Officer and Executive Officer met with the group upon their arrival. The team leader first verified that the Commanding Officer was amenable to the team's assistance, then briefed him on the team's mission: to minimize stress symptoms, to foster unit cohesion, and to facilitate normal grieving. The Commanding Officer expressed interest in the team's assistance and promptly requested guidance on how best to send the remaining dead bodies ashore as they were extracted, and how best to arrange collection of the personal effects of the deceased. The team leader recommended that the bodies be sent ashore in a ceremonial fashion if possible – analogous to a burial at sea – and that someone who knew the victims well conduct the handling of personal effects in a formalized, respectful way. The Commanding Officer accepted these recommendations and arranged for the SPRINT team to come aboard the following day. Team members would establish ties with middle-level leaders in preparation for the provision of support to the crew members under their supervision.

Stress management interventions

The team leader was trained in combat stress control and command consultation. The three mental health providers were trained in operational crisis intervention. The team leader prepared a set of instructions for the initial interventions (Table 6.2) and reviewed them with the team on the morning of October 16, Upon arrival later that day, team members received a tour of the ship and were paired up with members of the shipboard leadership. The crew was not operating according

Table 6.2 Guidelines for organizational consultation

Goals

1. Maintain the integrity of the chain of command.
2. Assist the command in maintaining its mission focus.
3. Contribute to organizational effectiveness and unit cohesion.

Techniques

1. Obtain direct briefings from identified organizational leaders. They should serve as a source of education and information.
2. Provide support – discuss recent events and identify effective responses to operational problems that arose.
3. Identify potential weaknesses in these individuals' communication with those above, below, or laterally in the organization.
4. Identify 'work groups' – teams of individuals with identified leaders tasked with specific missions on an ongoing basis.
5. Participate in team intervention briefing twice daily.

to its normal organizational structure but was instead employing hastily assembled work parties to carry out tasks. In this rapidly evolving environment, SPRINT members provided one-to-one support to identified individual crew members experiencing more pronounced stress symptoms. Team members met with scores of individuals and spontaneous assemblies of crew members. During his briefing with the Executive Officer that evening, the team leader suggested that he consider reinstituting the preattack crew organization and daily routine. In that manner unit leaders could augment the team's efforts in managing the stress of their sailors. The team decided not to attempt stress management interventions with randomly collected groups, but to wait until the crew were again operating within their normal unit structure and use this structure for group interventions (Table 6.3).

The advance party again assessed the status of the crew the next morning. The Executive Officer had ordered traditional work groups to reinstitute their routine morning meetings. The work tempo remained high, but was more coordinated, along traditional organizational lines. This change permitted the team to begin more structured group interventions. The remainder of the team came aboard and that evening made contact with working groups in close group leaderships.

The team conducted another round of group stress management meetings two days later. At other times each day team members continued to work with individuals and spontaneous small groups. Many of the crew could not perform their traditional duties due to the loss of power and the destruction of workspaces. Over the ensuing days most were transferred to other duties assisting the recovery effort. Daily all-hands assemblies rendered honors as bodies of the deceased were moved ashore.

Table 6.3 Techniques for group interventions

Goals

1. Permit psychological decompression of members of ongoing work groups.
2. Assist work groups in maintaining their mission focus.
3. Contribute to organizational effectiveness and unit cohesion.

Techniques

1. Use one or two debriefers.
2. For a first intervention, meet during 'down time' and have the team leader introduce the members of the team.
3. Ask the team leader to discuss the team's work during the previous shift – what was accomplished, what is yet to be accomplished; which processes worked, which did not. Encourage problem-solving.
4. Provide the team members with the opportunity to add their comments.
5. Provide teaching on stress symptoms (use handout) and offer suggestions.

Each member of the crew was given the opportunity to spend a night aboard one of the American warships outside the harbor, where they were greeted as heroes and were able to obtain a hot shower and a good night's sleep. Crew members reported that this opportunity provided a major source of stress relief.

Team members maintained an informal liaison with two Navy chaplains from Bahrain, who visited the crew daily. The team leader established liaison with the Norfolk Naval Shipyard workers, the Navy divers, and the FBI investigators. The Navy divers were experienced in the recovery of human remains and they demonstrated no obvious signs of stress. No formal interventions were provided, but many expressed appreciation for the presence of the team. The Norfolk Naval Shipyard workers, on the other hand, were not accustomed to this work and found it very difficult. Half of the group returned to Norfolk after less than one week and the team leader notified the Portsmouth Naval Hospital SPRINT of their possible need for a stress management intervention. The remaining workers completed their tasks on October 22. They were offered a summary debriefing experience. They accepted and the intervention was provided aboard the *Cole* prior to their departure.

Ongoing consultation

The team leader met with the *Cole* Commanding Officer and Executive Officer at the start and finish of each day. As a psychiatrist, he also provided medical consultation to the *Cole*'s Independent Duty Corpsman, a senior enlisted member with some training in physician assistant skills (the ship's 'doc'), and supplemented the ship's pharmacy with benzodiazepines brought from the hospital. A brief course of medication was prescribed to sailors experiencing severe acute insomnia and was

reportedly of great benefit. The team leader maintained communication with the task force medical leadership but did not establish any method of providing detailed information on the team's interventions. The team leader was able to obtain a cellular telephone, which he used to provide ongoing briefings to the Commanding Officer of Naval Hospital Sigonella and the Leader of the Portsmouth Naval Hospital SPRINT, who would assume stress management duties upon the *Cole* crew's return to nearby Norfolk.

Nature of findings

SPRINT team members estimated the following exposure information from their interactions with the survivors. Approximately 30 percent were in direct danger of death or serious injury, 100 percent knew someone who was killed or seriously injured in the attack, and nearly 100 percent perceived an ongoing threat of additional attacks throughout the course of the team's interventions. At least one-third of the crew were experiencing overt psychological responses to the attack and its aftermath. These responses included hypervigilance, startle, insomnia, irritability, numbing, and mood lability. All were deemed to be consistent with a normal response to a combat scenario.

After one week the crew's responses were becoming less overt and there were fewer requests for individual assistance. The crew turned their attention more and more to mission-oriented tasks. The ship's assigned chaplain had been serving aboard another ship at the time of the blast; he returned to the *Cole* on October 19. Upon arrival he was apprised of the team's observations and interventions and he reintegrated with the crew. He was warmly received. Once the last body was sent ashore, he planned and conducted a memorial service. The team was present but maintained a low profile.

Termination of team operations

The team determined that a summary debriefing would not be appropriate so long as the crew remained aboard the ship in the port of Aden. The team leader raised this issue with the Commanding Officer and Executive Officer who agreed that such an intervention should not take place until they had arrived at a location they perceived as safe. With a chaplain, Independent Duty Corpsman, and well-prepared leadership present to address continued stress management needs, the team sought a timely conclusion to its presence, thereby sending a strong message to the crew of their own inherent capacities. The Task Force Commander and the *Cole* Commanding Officer asked that the team leader remain aboard to provide ongoing command consultation. The remainder of the team returned to Sigonella on October 24. They conducted their own debriefing upon their return.

Completion and termination of command consultation

With the consent of the Commanding Officer, the team leader conducted an informal stress survey aboard the *Cole* 2 weeks after the attack. The results demonstrated a significant continuing level of stress. The 'show of hands' method of collecting data probably underestimated the actual prevalence. In light of the continued stress responses and particularly the prevalence of an avoidance response, the team leader proposed that the crew be given an opportunity to tour the damaged areas of the ship. The Commanding Officer agreed and assigned Division Officers to make arrangements for all crew members who wished to take part. A member of the Engineering Department led the tours. He described the mechanism of the blast damage, where the deceased had been recovered, and the methods by which the stateside shipyard would repair the damage.

The team leader worked closely with the ship's chaplain during this largely consultative period. Both he and the chaplain continued to provide support to identified crew members and to advise the ship's leadership. The majority of the *Cole* crew would travel by air to the ship's home port in Norfolk, Virginia. Once the ship was towed out of the harbor the chaplain and the SPRINT team leader accompanied the crew on its trip to Rhine Main Airbase in Germany, then on to Norfolk Naval Station. One hour before landing in Norfolk, the team leader used the plane's public address system to provide the crew with a final stress management briefing, covering education on expected stress symptoms, encouragement to make use of social support and available professional services, discouragement of alcohol use, and anticipation of follow-up monitoring.

Ongoing assessment and health surveillance

One month after their return from Yemen, the crew completed a questionnaire gauging their residual anxiety. Standardized measures included the Impact of Events Scale (IES) and the Beck Depression Inventory (BDI). One month after that, the IES and BDI were repeated and those scoring in the clinical range were referred for a psychiatric assessment. These data are in the process of analysis.

Conclusions

The US Navy and its Medical Department respond quickly to natural and human-made disasters around the world. Each disaster poses unique problems in the delivery of supportive services to survivors. Situational assessment and defining the mission are the first steps. Logistical considerations and establishing a role as a consultant are often the most challenging tasks when working with groups not familiar with the role of mental health following disasters. Without command

support, survivors often tend to focus on the mission at the expense of their own well-being. Attention must be given to housing, sleep, hydration, hygiene, food, and safety. Interventions, and especially group interventions, work best among pre-established groups, routinely found in military settings. Response teams need to be flexible in adjusting their services to match the groups and individuals being served, as well as the current operational tempo. Group self-reliance and natural supports are primary tools in the mental health response.

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