In Their Own Words: The 9/11 Disaster Child Care Providers

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In the days following the 9/11 tragedy in New York City, Disaster Child Care (DCC) and Childcare Aviation Incident Response (CAIR) volunteers provided care for the young children of families whose loved ones died in the World Trade Center collapse. This retrospective pilot study of 66 DCC/CAIR volunteers examined qualitative data on the following topics: (1) Observations of the children's caregivers/parents and differences from other childcare or disaster settings, (2) Personal reactions to the experience, differences from other childcare or disaster settings, poignant anecdotes, utility of debriefings, stress after returning from New York, and (3) Observations of coworkers' behavior and differences from previous disaster responses. Response rate was 71% (66 of 93 potential subjects). Parental behaviors noted were the following: distress (74%), difficulty separating (48%), and checking in to see whether child was safe (44%). DCC/CAIR volunteers reported high emotionality (28%), a need to share their experience (20%). and sleep distur-bance (13%) upon return from New York City. Implications for future research and practice are discussed.

Keywords: disaster, childcare, volunteers, 9/11

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In the days and weeks following the attacks on the World Trade Center in New York, thousands of family members of persons who had perished in that tragedy found their way to a Disaster Assistance Center (DAC) located on Pier 94 in the Hudson River. The center was established by the American Red Cross (ARC), the Federal Emergency Management Agency (FEMA), and Mayor Giuliani's office. Many of these families brought their young children and chose to take advantage of a temporary childcare center staffed by trained disaster response volunteers. Here children could be left in a secure, child-oriented environment while their caregivers applied for relief services, which entailed waiting in lines and filling out forms.

Nearly 1,600 children were served during the 12 weeks that the childcare center was in operation. During the first two weeks after 9/11, the primary mission at Ground Zero was one of rescue and recovery. Many of the individuals coming to the DAC were looking for updates related to the status of their loved ones. With the passage of time, optimism faded and the mission changed to one of searching for

bodies and other personal effects among the vast piles of rubble. I (first author) was among those who provided supervision to childcare center volunteers during the third and fourth weeks following 9/11 when the focus shifted from rescue to recovery.

Upon returning from my tour at Pier 94, I began wondering about the psychological needs of these very young children, their families, and those who provided Disaster Child Care (DCC)[1] alongside Childcare Aviation Incident Response (CAIR) volunteers.[2] For example, did our volunteers' observations of children and their caregivers differ markedly from those reported following other acts of terrorism? A literature search revealed only anecdotal reports (Coates, Rosenthal, & Schechter, 2003; Fenichel, 2001/2002; Fremont, 2004): no formal studies were found. Research done after the Oklahoma City bombing in 1995 focused on elementary school-aged children (Pfefferbaum, 1999; Pfefferbaum et al., 2000), whereas studies in Ireland, Israel, and Croatia (Fremont, 2004) focused on much older children.

In addition to their observations of children and their parents/caregivers, I was also curious about the childcare volunteers themselves: Did, they, like me, find a need to make sense out of their experiences in New York? Had the support I and the other "clinicians" provided them been helpful? What memories/emotions did they experience in the aftermath of their volunteering? A literature search again revealed little to inform these questions. Not surprisingly, most of the research done on the emotional sequelae to disaster has focused on survivors and, to a lesser degree, first responders (Adams, 2007). Only a few studies have attended to nonrescue volunteers and their emotional needs (McCaslin et al., 2005; Morgan, 2005). Morgan (1995), in a study of ARC staff and volunteers who had responded to Hurricane Hugo and the Loma Prieta earthquake, found high levels of stress. This study informed the development of the ARC Disaster Mental Health Program.

Subsequent to 9/11, McCaslin et al. (2005) found similar levels of distress among ARC 9/11 responders, as well as a correlation to negative life-changing events in the year subsequent to service. None of these studies addressed childcare providers.

In an effort to partially offset this lack of data, I teamed up with (second author) a colleague from the Ohio Association for Infant Mental Health, to create an assessment protocol that would expand our knowledge about volunteer, caregiver, and young children's responses following acts of terrorism. We focused on three main questions: (a) What behaviors were observed as caregivers interacted with their young children? (b) What behaviors and emotions were observed and experienced among DCC/CAIR volunteers—both at the site and one year later? and (c) To what extent were the behaviors outlined for Traumatic Stress Disorder (Zero to Three, 1994), endorsed for two age groups, birth to 3 years and 3 to 6 years? This article reports qualitative results derived from the first two

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[1] In June 2007 Disaster Child Care changed its name to Children's Disaster Services. However, the authors are using the previous name and initials (DCC) throughout the paper as that name was active at the time of the research.

[2] My musings on the observations and reactions of others were prompted by my own emotional post-response process following my time in New York. I just couldn't stop thinking about the children and families I had met there: toddlers who "should" be active and curious lying unmoving and hypervigilant for hours in their cribs, a hyperactive 6-year-old who calmed rapidly after disclosing her experiences of loss and confusion, the father whom I counseled on how to tell his 4- and 7-year-old daughters that their mother was dead and not just missing, the young couple with a newborn who arrived despondent about bringing their son into a world that could so tragically take away a grandmother and who left with a new sense of hope after seeing their child so lovingly cared for by complete strangers. Had the other volunteers seen what I had in the behavior of the children they cared for? What memories of their experiences did they carry with them? How were they coping with their post-response reactions? Did they feel as I did that this terrorist act and its aftermath had happened to "us" and not just to "them?"

questions. Prior to describing our methods, we provide pertinent background information regarding general services provided at Pier 94, as well as the physical layout and mechanics of the childcare center.

THE SETTING SERVICES PROVIDED

The DAC was located in a converted warehouse on Pier 94, just upstream from Ground Zero. Family members came here to apply for short-term loans, victims of crime assistance, temporary housing, death certificates, and other services. Police provided security at the building's entrance. Just inside the building were interpreters capable of translating the nearly 70 different languages used by those working and living in the greater New York metropolitan area. Representatives from the Victims of Crime Unit, the ARC, and Federal Emergency Management Agency (FEMA) were present to ensure that families in need of food and shelter received help. Individuals representing major corporations with offices previously located within the World Trade Center were also available to provide support and financial assistance to families. A critical component of the DAC was its childcare center that served, at its peak, approximately 40 children ages six weeks to 12 years per day.

CHILD CARE

A safe and child friendly care center was created using flexible office dividers as partitions. Cribs were set up for small infants and various types of toys, and other materials were made available for both gross and fine motor activities (e.g., large balls and art supplies, respectively). Upon arrival at the childcare center, a Polaroid picture was taken of the child and their caregiver. The child's age and name were then written on a tag placed on their back. This helped ensure that the child was returned to the same caregiver after they had completed necessary forms, obtained a death certificate, or had taken a ferry ride to Ground Zero. With re-

spect to the children being served, "[u]nless they or their caregiver told us, we didn't know who in their family had died. We didn't ask. We were simply there with them . . ." (Kinsel, 2001). Simple giveaways such as stuffed animals were readily available to help restore some sense of predictability and routine into the lives of these children. Several decisions were made early on to ensure that the childcare area remained protected and safe. Televisions were kept turned off within the childcare area. DCC and CAIR volunteers were encouraged to avoid the many memorial walls devoted to loved ones either missing or presumed dead. A community atmosphere emerged as families with young children began to use this supportive service. A number of children/families came repeatedly to the center and used it as a place to rest and recharge. Children's length of stay at the center ranged from 45 minutes to nearly 10 hours.

Preliminary observations indicated that most of those using the center were "typical kids." Once they saw the toys they were ready to play despite an overall atmosphere of doom and gloom. Grief dogs regularly made the rounds of the center and provided children and adults with the opportunity to experience unconditional love. The dramatic play area brought forth much reenactment play as block towers were repeatedly constructed, then demolished. In contrast to more typical childcare settings in which the return of the parent can be disruptive to a preschool's behavior, parental decisions to "check in" with the child, provide food, or to just watch and observe them were encouraged.

VOLUNTEERS

New teams of 15 to 16 volunteers trained in DCC response rotated through the childcare portion of the DAC every two weeks. Each team was assigned a supervisor who was responsible for their welfare and that of the children/families being served. Volunteers rotated their time between registration and being in the room

providing care. There were few exceptions to this practice, and these were typically based on personality factors or the need for a bilingual person at the registration desk. At the end of each day, the number of children served was shared with volunteers who were then debriefed in groups by available supervisors. The latter were in turn debriefed by another supervisor to help minimize the cumulative effects of stress. If needed, individual debriefing and support was also provided. At the end of each two-week shift, volunteers received individual debriefing by Red Cross Mental Health before returning home. Throughout the entire process, no notes were kept. However, all volunteers were encouraged to use journaling to help relieve stress.

TRAINING

DCC volunteers had all been through Level 1 training that included DCC philosophy, policies, and procedures; the disaster response system (e.g., Red Cross, FEMA); and 24 hours of participatory exposure to disaster theory, material on child development, and the effects of disaster on children. DCC volunteers also spent the night together on cots in a simulation of a disaster response. In addition to Level 1 training, all CAIR volunteers received a three-day training specific to airline disaster and mass casualty response. Although the 9/11 response was technically a CAIR project, it quickly became apparent that the 38 individuals trained in CAIR were insufficient to handle the massive response needed to this larger-than-ever-imagined disaster, so Level 1 trained DCC volunteers were called in to assist.

METHODS

Procedures

To address our three main questions, we created an assessment protocol, copies of which can be obtained by contacting the first author. The protocol contained the following components: (1) Demographics [for example,

gender, race/ethnicity, education, and years of work experience with young children; (2) Observations of the children's caregivers/parents and differences or similarities in behavior from other childcare or disaster settings; (3) Personal reactions to the experience, differences from other childcare or disaster settings, poignant anecdotes, utility of debriefings, stress after returning from New York and whether help was sought for this; (4) Observations of coworkers' behavior; and (5) Observed child behaviors [for example, number of children served and percentage of children who displayed post traumatic stress disorder behaviors as outlined in the DC: 0–3 (Zero to Three, 1994)]. Data from the last component is not reported in this article.

The assessment protocol was mailed on September 7, 2002, to the DCC and CAIR volunteers who had provided service at Pier 94 one year earlier. Permission was first obtained from The Church of the Brethren (COB)[3], the DCC/CAIR Programs, and the ARC to conduct this study. There are no for-

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[3] In 1980, Church of the Brethren (COB) members began working with the American Red Cross (ARC) and Federal Emergency Management Agency (FEMA) to provide trained volunteers to care for the children of families that had suffered substantial material losses due to natural disasters such as floods, hurricanes, and tornadoes. COB members place a high value on individual freedoms, often trace their ancestral roots to farming communities as well as to their Anabaptist and Pietist beginnings, and frequently volunteer their services to others. The Disaster Child Care (DCC) was formed to meet the immediate psychological needs of young children by providing them with "...a safe place where they could be themselves. We tr[y] to be attentive and sensitive adults...not so caught up in our own grief as to be less than fully available to them" (Kinsel, 2001). Over the years, the DCC volunteer pool has expanded to include members of a wide variety of faith traditions. In the early 1990's, after a series of major airplane crashes in the United States, Childcare Aviation Incident Response (CAIR) teams were formed to respond to families of victims after an aviation disaster with mass casualties. Such teams set up childcare centers near the crash site where children can be cared for safely and lovingly while the adult victims go about the many activities associated with recovery from such an event. In the years prior to 9/11, 38 individuals from DCC had also been trained to respond to such domestic airline disasters.

mal institutional review boards for research within these organizations. The Total Design Method for Mail and Telephone Surveys (Dillman, 1978) was used to improve response rate.

Respondents

Of 93 potential participants, 66 (71%) agreed to complete the study. Nonrespondents were more likely to come from the first 6 weeks of service than were respondents (one-tailed Kolmogorov–Smirnov statistic = 0.45, Smirnov's χ^2, $p = .0005$). Of these 66 subjects, five were excluded since they worked only at the registration desk and had no direct role in the children's care. Subjects had a mean age of 61 ($SD = 10.3$ years). Additional respondent characteristics are shown in Table 1. We were unable to access data on the age, gender, education, and work experience of nonrespondents.

Statistical Methods

An open-coding procedure developed by Glaser and Strauss (1967) was used for all qualitative analyses. The first author reviewed the narrative responses to questions related to the three main areas of interest as described above: (1) Caregiver behavior: Behaviors with children, and was caregiver behavior different?; (2) Personal experience: Personal reflections, was experience different, utility of debriefings, stress after New York City; and (3) Observations of coworkers. For each set of questions and answers, descriptors were developed to capture similar ideas expressed by multiple respondents. These descriptors, then, were grouped together heuristically to create common themes that emerged from the analysis. The predominant themes for each area are described below.

Table 1
Final Sample Characteristics

	n	%
Gender (female)	46	75
Race/ethnicity		
White	59	96
African American	1	2
Hispanic/Latino	1	2
Education		
High school	13	21
College	20	33
Graduate school	28	46
Previous work experience		
Children 0–3 years	32	52
Mean, median, mode, and range (# of years)	15, 10, 10, 2–60	
Children 3–6 years	43	70
Mean, median, mode, and range (# of years)	21, 15, 12, 1–60	
DCC Certified	61	100
CAIR Certified	38	62
Number of children served		
0–3 y = mean, median, mode, and range	49, 30, 20, 4–280	
3–6 y = same as above	59, 30, 30, 10–270	
Participants endorsing distress after service[a]	26	39
Participants seeking help after service	17	65[b]

Note. DCC = Disaster Child Care; CAIR = Childcare Aviation Incident Response.
[a] Based on n = 66 subjects (includes 5 non-caregivers).
[b] Of those who experienced distress after service.

SPSS, Base 7.0 for Windows (1996) was used for all other analyses.

RESULTS

Results are reported in the form of *thematic categories* derived from open coding, *descriptors*, illustrative *examples*, and *anecdotes*. Subject identification number and dates of service are provided. The latter are based on 2-week intervals that range from A—the Search and Rescue Component of 9/11 to F—the Final Weeks of Child Care Center Operation.

Caregivers

Behaviors With Children

Open coding of volunteer responses regarding parent/caregiver behaviors with their children led to development of the following six descriptive categories:

Distress. (74%, *n* = 45) *Descriptors*: Overwhelmed, dazed, difficulty concentrating, angry, withdrawn, lethargic, anxious, and fearful. *Examples*: 40E: "Some of the parents seemed dazed, as if they were just going through the motions. One grandmother sat in the room for a couple of hours without interacting with anyone—just staring into space." 69E: "One mother with a 3-year-old and 3-month-old was extremely upset. Her husband was killed and she couldn't sleep at night or eat. We got her to sit down and eat a little. We offered her some baby clothes." *Anecdote*:

43A: "[A young mother and her 1-year-old child] the father of the child had been a firefighter and died on 9/11 but the mother was not married to him yet. The same woman came almost daily the two weeks I was there, each time seeming more distant in her responses to the child and us. She always had the same clothing on. It seemed like she was frozen in time and couldn't move forward. The last time I saw her in the room, she was still wearing the same dress and there were firefighter support people with her. I believe they were trying to get her some emotional help."

Difficulty separating. (48%, *n* = 29) *Descriptors*: Anxiety about leaving child, extended separation ritual, choice made not to leave child. *Examples*: 14B: "Parents were somewhat nervous about leaving their children. The Muslim parents would not leave the children at first; they would stay with them in the childcare area." 85B: "As in all the disasters I've done, in general the parents seemed to have a greater problem leaving the child than the child did." *Anecdote:* 16C: "The most [memorable] parent brought her 6-year-old girl and stayed with her [while the child played]. When she left (twice), she was back in minutes, finally leaving with the child and not returning. Her comment when we invited her to leave the girl: 'I've lost too much already.'"

Checking in. (44%, *n* = 27) *Descriptors*: Returned often during child's stay to see if child "OK", just to make contact, may or may not want child to see them. *Anecdote:*

15B: "I was very impressed by the number of parents/caregivers that had to come back to our center just to 'peek' in to see that their children were ok. This was significantly different from parents that might come back in a regular situation for young children with separation anxiety. These were parents/caregivers who were coming back 'just to see' children 4–9 years old. They seemed very anxious and tense, releasing some of that when they could see the child."

Appreciative. (34%, *n* = 21) *Descriptors*: Statements of appreciation to caregivers, expression of relief upon finding that the child was safe. *Examples*: 45A: "I was impressed with the patience and love these tired, grieving, traumatized parents showed toward their children and the sincere appreciation they expressed to the caregivers for being able to leave their children in a clean, secure center where the children could be children." 69E: "All parents [who used the center] were very grateful and willing to allow their children to stay. Some stayed with their children just enjoying the quiet atmosphere, at least for

a while. Parents were concerned about their children. Most wanted diapers or anything we could give them." *Anecdote:*

57F: "A parent of three children under the age of three (a girl and twin boys) did her best to have a normal routine for her children. For example, she brought marked familiar cups with milk and told us daily routine, nap procedure, and so forth. She gave lots of hugs to her children. Privately (not in front of the children) she shared how overwhelmed she felt without her husband's help and support. (Her husband was killed in the World Trade Towers.) She said she wished she could take us home with her as it was so peaceful at our center."

Safety/vigilance. (28%, *n* = 17) *Descriptors*: Questioning or otherwise expressing concern over center safety/security measures. *Examples*: 82A: "Parents were impressed by our [photograph] of the child with the parent or guardian. The close[d] door policy afforded privacy, and it appears as if parents felt their children were more secure and safe." 91F: "Some parents (30%) were extremely reluctant to leave their children out of their sight/control. Most were reassured once they saw the fact that we took security pictures and would release the child ONLY to the adult in the photograph." *Anecdote:*

26B: "Parents needed a lot of reassurance about who the caregivers were, what was going to happen in the Childcare Aviation [Incident] Response (CAIR) room, and the accessibility of the children to them at anytime. They appreciated and understood our safety protocols . . . Explanation of who the caregivers were and required training were often sought and when offered seemed to [be] reassuring. Parents appreciated the lounge area for CAIR, seeming to find comfort in being close to the children and also asking questions about behaviors they'd observed and [sought] advice."

Lingering. (26%, *n* = 16) *Descriptors*: Staying in the center/parent lounge area for extended period, observing children,

talking with staff in a safe place. *Example*: 52E: "[It was] difficult for some parents to leave their children." "[They were] happy when they could see the children enjoying themselves and some would sit with us and talk, taking a respite with us as well."

Was Caregiver Behavior Different?

The following examples illustrate how caregiver behavior differed from previous DCC experiences. 22A: *Same*—"Wanted to check the safety of our center." *Different*—"Under much more stress. All dealing with death and shock." 82A: "Separation anxiety worked both ways. Parents of 9/11 came back to peek in at their children more often. "Just checking" was heard several times from parents." 37A: "[The] potential of possible attack made parents more vigilant and concerned." 15B: 'There was a marked change in parents' behavior . . .[t]heir voices were higher, their movements quicker, even as we took Polaroid pictures of their children . . . Their 'knowing' and accepting us as a safe place was much less than [at] other disaster responses.' 2C: "They were much more concerned about the children. Quite a few refused to leave the children when we approached them while they were waiting to gain entry to the building or in the waiting areas. I thought the parents exhibited more anxiety than the children . . . . [t]hey appreciated the tight security and asked. . [about] the procedure in case of an evacuation." 65D: "The lethargy of the parents."

Volunteers: Personal Reflections

Volunteers were asked to share their own emotional/behavioral responses to caring for children who had experienced such dramatic loss due to terrorism. Three clusters emerged with nearly equal frequency.

Compassion/empathy. (34%, *n* = 21) *Descriptors*: Feelings for or "on behalf" of the children and families. *Example*: 75A: "I was grateful that I could help these parents who had lost so much and were distressed. Any disturbing stories that I heard gave me con-

cern but I . . . work[ed] through that by caring for the children. Being needed as I was gave me a positive and fulfilling feeling which stayed with me."

Strong emotions. (33%, *n* = 20) *Descriptors*: Sadness, mourning, crying, avoidance, visceral response to reminders of the tragedy. *Examples*: 82A: "I found it a little difficult to close this chapter in 'Disaster' childcare. I found it by visiting the Shanksville Memorial here in PA. I took with me a memento of New York leaving it on the fence, thereby leaving a part of my experience. I left my tears and prayers as I looked out over the crash site. This gave me the [*closure*] I needed to move on." 85B: "I found that in order to hold my own emotions together I had to be blind to certain things in the family center: the "missing" posters as we walked in, the cards, drawings, and so forth all over the center."[4]

Child focused. (30%, *n* = 18) *Descriptors*: Control of own emotions in order to be emotionally available to children; to treat them like any other child. *Example*: 44B: "As I worked with these children, I tried to control my feelings about what "America" had lost. I wanted to do as much to help these children to know they were loved and that many people were there for them." 32A: "The stories the children and parents told were so sad and heartbreaking, [yet] . . I was able to *focus on the children* . . [,] my job, and maintain relationships with team mates." *Anecdotes:*

70A: "A young boy, about 4 years old, was wearing a medallion on a chain. I asked him if I could look at it. He said yes, but he couldn't take it off because his daddy gave it to him. I asked him where his daddy was, he said "Daddy's lost." His daddy was a fireman, and the medallion was a miniature of his daddy's helmet and shield. It took all of my inner strength not to burst into tears."

32A: "I found I had to protect myself more than other responders. So much hurting, and at first, so much media focus on the hurting and loss. Things like TV's in the Family Assistance Center (FAC) constantly on, and so forth When I was not in the FAC I did not listen to news or read newspapers . . . I was physically and emotionally tired; the first few nights I did not sleep well. [A]fter that, I was able to sleep and kept emotionally even."

Post hoc analysis comparing early (first six weeks) versus late (last six weeks) responders revealed no significant differences for education, high school versus college (χ^2 = 2.3, *p* = .1) or previous work experience with children birth to three years (χ^2 = .1, *p* = .8) or three to six years (*t*[62] = .15, *p* = .9).

Observations of Coworkers

Open coding of observations of coworkers revealed one overall theme: the ability of volunteers to perform their volunteer duties despite a high intensity of daily stress—especially during the first four weeks after 9/11 (52%, *n* = 34). *Descriptors*: Caring, empathic, loving, patient, creative, humbled, honored, warm, caring, kind, patient, understanding, dedicated. *Examples*: 84A: "[I was] stressed after long hours and sleep deprivation. This caused some irritability [and] conflicts; in some—confused thinking and psychosomatic illnesses." 37A: "For the most part [I was in] very good

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[4] The missing posters, cards and drawings referenced here were part an atmosphere of "memorial" that permeated the city as well as the Disaster Assistance Center (DAC) itself. Most striking were the "memorial walls" that dotted the Manhattan community. Often near fire stations, but also on random sections of construction fencing or, within the DAC, a somewhat out-of-the-way but large wall, these expressions of people's feelings consisted of photos and descriptions of missing loved ones, contact numbers to call if the missing person was spotted, letters to the missing persons expressing the writer's grief and desire for them to return, personal poems and prayers, flowers, ribbons and a vast array of other memorial decorations. The presence of these "memorial walls" was something new to the volunteers' disaster response experience. Viewing the walls was a powerful emotional experience. So much so that the CAIR supervisors recommended that volunteers avoid them as a self-protective act.

control. When fatigue would set in, I noted less tolerance of other's habits (i.e., talking too much, 'too many chiefs and not enough Indians syndrome' if not in leadership roles)." 16C: "All of my coworkers seemed emotionally stable doing a job that needed doing with much tenderness and love. Even in . . the situations where there were too many children in a space too small and not enough care given. I never saw anyone become angry or out of control." 19F: "I was amazed at how so many people from various backgrounds and different geographic locations could come together and work so cooperatively. The CAIR/DCC training has worked exceptionally well, I believe."

Despite the overall tone of working together as a team, comments such as the following also appeared: 10C: "[I was] tense, sad [and] ready to go home after 1–2 weeks. Some seemed better prepared emotionally." 34D: "One worker, however, had a hard time dealing with things. I found her in the hotel lobby in tears. She had worked 10 days straight without a day off."

Was This Experience Different?

Open coding of volunteer responses regarding differences between 9/11 versus other DCC/CAIR responses led to development of four descriptive categories:

Emotional strain. (52%, $n = 34$) *Descriptors*: nightmares, tiring, irritable. *Examples*: 12B: "We had to be so careful to follow the rules of tact and compassion that I think it put an added strain on us. 26B: "Some were very fearful. Some had trouble dealing with the magnitude of death. It seemed to me there [was] . . generally less anxiety and more 'matter of fact' attitudes by those well-seasoned [in previous] . . disasters. There was more lability of emotion and more dependency on time with [the] team clinician."

Complexity. (24%, $n = 16$) *Descriptors*: no safe haven, large number ethnic groups, patriotism, economic victims, surrounding neighborhood. *Examples*: 58A: "The working out of some kind of cooperation with the

psychiatric group was my pressure (Kids Corner). Their inappropriate approaches showed me how good our training and methods really are (e.g., [saying] to a 4-year-old in obvious fear, 'do you have anything you want to process?')" 37A: "The international spectrum of children we took care of—the need to be bilingual." 26B: "I was struck by the perception of some locals that responders/caregivers were intruders. They (locals) were eager to DO[sic], contribute, [and] feel a sense of control . . . [W]e were where they wanted to be. This attitude relaxed with the explanation that we were first responders and were working to turn things back to the community." *Anecdote:*

32A: "With . . other[s] I saw more territoriality, more possessiveness with room arrangement, activities, and so forth. During the time I was there, we were working three shifts and there was a tendency to be critical of other shifts' room changes, and so forth. There seemed to be a lot more people who. . [thought] they were in charge and needed to direct others—much more [so] than [in] other responses."

Shock. (20%, $n = 13$) *Descriptors*: distanced emotionally, matter of fact, stoic, I drew back. *Examples*: 26B: "[I] also noticed a sense of shock, exhibited by silence, conformity [and] patience; lasted longer than other [C]AIR accidents. The [C]AIR responses are normally much smaller and . . . [are] defined by the memorial as a culminating event. I wondered when the anger and frustration would become more dominant. [It] began by the third week." 16C: "I . . . felt more so in New York that I was operating in a daze, going through the motions. I don't feel this made my relationship with the children ineffective. I just felt I was living in a daze." 15B: "The sense that *everyone* in New York was mourning and we were surrounded by grieving people, not only . . clients. [M]any of our coworkers at the pier, particularly in the dining area were grieving. It was very different than [previous] air crash responses where you

have a safe haven in separate hotels to be away from the tragedy."

No differences. (15%, *n* = 10) *Descriptors*: method worked again, emotional response same, treat kids same. *Anecdote:*

16C: "I can't say I saw much difference. Natural disasters . . sometimes come without warning and end life as we know it in a relatively short time. With natural disasters, it wouldn't be unusual for the same thing to happen right away, as in earthquakes or tornados that divide and even turn back. Once someone has been through such things it takes a long time to feel any sense of security whatsoever."

Utility of Debriefings

Of the 66 participants, (85%, *n* = 56) were in group and (73%, *n* = 48) were in individual DCC/CAIR debriefings, while (97%, *n* = 64) were in ARC debriefings. Responses to, "Please comment on the helpfulness of these debriefings for your own emotional well being . . . " fell into three categories:

Yes, helpful. (44%, *n* = 28) *Descriptors*: essential, release, ventilate feelings, normalize, permission, reassuring, understood. *Examples*: 81B: "The debriefings were helpful because they gave permission, . . to carry on with my life. Though it was a terrible tragedy I could and should leave it in New York City (NYC)." 73D: "It was good to get to talk about your day in the DCC on-site debriefings. 65D: "It was what I needed at that time." 69E: "They were useful and informative, but I was not emotionally exhausted. I was there toward the end . . [of the response]." Of the 28 individuals who were in the "*Debriefings helpful*" category, (64%, *n* = 18) did not experience stress related feelings after returning from NYC, including respondents 81B, 65D, and 69E.

Not sure. (42%, *n* = 26) *Descriptors*: same as talking to friends, not critical, satisfactory, ok, interesting. *Examples*: 85B: "Daily debriefings were generally helpful. Red Cross debriefings [were] NOT! De-

briefer was so patronizing. I felt more stressed after the debriefing than I had felt before." 48D: "They were interesting conversations, but not critical to my well-being. I was more dealing with things daily as they presented." 8F: "I did not receive too much for myself as we had times of discussions within our own group each day. [T]hat was the major help as it was on day-to-day basis." Of the 26 individuals who were in the *"Not sure"* category, (61%, *n* = 16) did not experience stress related feelings after returning from NYC, including respondents 48D and 8F.

Of no help. (14%, *n* = 9) *Descriptors*: doing all right, too busy/big, item to check off, a hoop, minor effect, patronizing. *Examples*: 43A: "I thought the group debriefing was minimal in terms of help. I was in NYC the first two weeks after 9/11 and everything seemed too big and too busy for debriefings. We did team up with someone we felt comfortable with and my "partner" and I did some debriefing together and also did some prayer time at the local Catholic Church." 77C: "Felt it was [a] hoop to jump through; was not helpful to me." Of the nine individuals who were in this category, (66%, *n* = 6) did not experience stress related feelings after returning from NYC, including respondents 43A and 77C.

Post hoc analysis comparing early (first six weeks) versus late (last six weeks) responders revealed no significant differences for the utility of debriefing [Helpful versus Not Helpful (χ^2 = 0, p = 1)]. Analysis of the helpfulness of debriefing to stress or no stress after New York, revealed no significant differences for observed versus expected frequencies, $\chi^2(2, N = 63) = 9$, p = .9.

Stress After NYC

Less consistency was noted when volunteers were asked to describe their reactions upon return from New York. Five distinct clusters emerged:

Emotionality regarding reminders. (28%, *n* = 17) *Descriptors*: Crying, mourning,

sadness in response to memorials, news, completion of the survey, 1 year anniversary and other reminders of 9/11. *Examples*: 9A: ". . . starting projects, making decisions, and staying involved in projects until completion were all bothersome. I stayed away from New York until May—and even then did not go near Ground Zero, but stayed in the Times Square area all day." 2C: "I found filling in this survey very difficult. Perhaps the 9/11 memorials yesterday added to my tenseness, but this is not my usual reaction." 88F: "One little girl about age eight or nine gave me a small paper heart she cut out and gave to me saying she was giving me to remember her by 'for always'. I still have that heart in my billfold with a picture of my grandchildren. I pray for her as I do for them, and God knows who I mean." *Anecdotes*:

45A: "I suppose I was "somewhat" (never really) "conditioned" for [the] 9/11 experience as I already had [the] Egypt Air disaster under my belt. Then immediately after 9/11, it seemed to me, I was back in NY on Nov. 12th for another CAIR experience which included more hours at Ground Zero than the Pier 94 period. Coming home from that second experience left me with a heavy feeling which has been harder to shake, which came to the surface again with the 1st anniversary."

14B: "After returning home I was able to "release" the hold I put on my feelings while on duty. I would cry when the news mentioned more sad news. I had a couple of bad dreams where I would be in huge crowds feeling lost and anxious. I still cannot look at the 9/11 books; they make me cry. I won't be buying one. I attended a 9/11 memorial at LAX [and] completely lost it when we sang "God Bless America." I thought I was through the grief process . . I guess not."

69E: "[Since I was in NYC] at the end of the . . [response] . . most of the people we saw were not so terribly distraught. We worked 6–8 hours a day and had time to sight see. My "aftershock" was feeling guilty because I had such a good time. I felt no sleep disruption in New York or at home. I was very willing to talk about my experience. People said I was so wonderful to go to New York, but I felt guilty when they praised me."

Telling the story. (20%, $n = 12$) *Descriptors*: Need to share the experience to reduce stress. *Examples*: 45A: "Yes, I still need to talk about 9/11 sometimes. I have been asked to share my experiences at two churches, three women's groups, 1 newspaper article, two service clubs and a short, 1-hr Latin radio interview." 46E: "Aftershock was difficult, but as I told my story to family and friends, I released that pain."

Sleep disturbance. (13%, $n = 8$) *Descriptors*: Reports of intrusive dreams, nightmares, sleep disturbance. *Examples*: 70A: "[I have experienced] depression, internalized problems, extreme fatigue, and trouble sleeping." 37A: "It took approximately two weeks for things to normalize for me. #1 was the physical fatigue. I wish I could have stayed home and slept, but needed to go back to work since I had been gone for two weeks. I had a good support system and was able to verbalize my experience to selected family and friends." 15B: "Aftershock? [I] experienced recurring nightmares of being at a cemetery with many dead and I was "in charge" of organizing everyone." 2C: "I had nightmares involving airplanes, something that was unusual for me." *Anecdote*:

16C: "I had a dream apparently related to 9/11 just recently, on the night of October 9, 2002. I was in a car driving to a work site when something happened, something not shown in the dream. It caused injuries. I saw two men lying flat down on their backs on the grass. Later we drove back past the spot and they were still there. I thought, 'Why has no one taken them away?' It wasn't until I awoke next morning that [I realized] . . what they were wearing: the yellow firefighters' gear of the New York City Fire Department. Early on I wondered why I hadn't been hav-

ing dreams. Now I wonder [why] . . I had this one."

No distress. (10%, *n* = 6) *Descriptors*: Reports of no distress, forgetting they were there. *Examples*: 81B: "I was able to sleep well in New York and after I got home. I think the pace, keeping busy until we were tired, helped me relax. It was good to be able to debrief some while traveling home with another caregiver." 92C: "No deep ill effect on my part. Perhaps I am too matter of fact or stoic? We have to face up—no matter what!" 31F: "I feel I handled the emotional response well. It was helpful to talk to other caregivers on site. [I have] no lingering "aftershock" feelings." 35F: "I felt empathy for those I related to. [I have] no lingering problems. I enjoyed playing with the children and being involved with them."

Irritated by reactions of others.(5%, *n* = 3) 85B: "One thing I found very frustrating was that for many people, the main question they had was 'Did I see Ground Zero?' Yes, I did, but that was nothing compared with the people, their stories, the look in their eyes." 45A: "My own little "hang-up" . . .: When folks introduce me as having helped in NYC, I often feel a bit of embarrassment. However, when I wear my NYC shirt, hat and ARC pin and receive no comments I am sometimes disappointed." 14B: "I remember getting too upset about not being able to get Reggie Jackson's autograph. I really wanted it because my best brother-in-law is a baseball fan and I wanted to surprise him with it. I don't know why it was so important. I just try to think of other people when special things happen and I resented it that no one thought of me while I was outside at the front desk . . . figure that!"

DISCUSSION

We recognize that there are significant limitations for our data set including, but not limited to: (1) No knowledge of previous trauma histories for the caregivers or for that matter the childcare volunteers, (2) Lack of consistency regarding intervals of observation, and (3) No demographic information to understand if there were potential differences between respondents and nonrespondents.

Despite the limitations of being a retrospective study conducted a year after 9/11 took place, the results lend themselves to some interesting conclusions. The DCC and CAIR volunteers clearly noticed a heightened stress level and increased need for reassurance and comfort among the parents/caregivers of these children versus other disaster responses. The caregivers themselves identified the importance of managing their own emotions in order maintain a supportive relationship with the children for whom they were responsible. The latter is very similar to other anecdotal reports by childcare workers actively engaged with children during the 9/11 attacks (Augustyn, Groves, & Weinreb, 2001/2002; Booth, 2001/2002; Halloran & Knox, 2001/2002). We hypothesize that the significantly lower response rate among volunteers who worked during the first six weeks after 9/11 may itself be a stress response linked to the greater intensity of emotions associated with the early days of recovery. It may have been harder for them to reopen memories needed for completion of the questionnaire.

Volunteers participating in this study reported a variety of emotional "after effects" upon their return from New York City ranging from increased emotionality to intrusive dreams. This finding is consistent with other studies of other kinds of disaster volunteers. (McCaslin et al., 2005; Morgan, 2005). Like those previously reported, the caregivers in this study reported emotional sensitivity in a variety of forms persisting one year after their response experience.

There was mixed review among respondents to the current study as to the helpfulness of the debriefing experiences they encountered on site. There was no statistical difference between the three groupings (helpful, not sure, not helpful) in terms of

their vulnerability to postservice trauma (36%, 39%, and 34%, respectively). There was also a mix as to what kinds of debriefing were most or least helpful. While again not statistically significant, there was a tendency for more favorable comments to be related to group and daily debriefing and less positive statements to be directed toward the individual ARC termination debriefing. Traditionally, ARC exit debriefings have utilized the Multiple Stressor Debriefing Model (Disaster Child Care, 1999). This one-time, brief interview model is among the type of debriefing that has recently come underfire for being not only unhelpful, but potentially exacerbating as well (Devilly, Gist, & Cotton, 2006).

Respondents also identified some interesting behaviors among the parents they observed. The relatively high incidence of reported symptoms of distress (appearing "dazed," lethargy, difficulty concentrating, fearfulness, etc.) is not surprising, as these are consistent with the literature on victims of trauma and disaster(Young, Ford, & Watson, 2007). What is unique is the frequent reference to parents being reluctant to separate from their children, as evidenced by refusal to leave their children, frequent "checking in" on their children and lingering in the childcare area. This phenomenon was previously reported by the first author and labeled "Parental Rapprochement" (Kinsel, 2001). Otherwise absent from the literature, this emphasis on maintaining contact/awareness of the safety/presence of their loved ones has implications for disaster response of all kinds. Care should be taken to maintain the intactness of family groupings. When separation is necessary due to safety, medical, or other emergency considerations, systems need to be developed and implemented that promote communication between loved ones and that facilitate rapid reunification.

RECOMMENDATIONS

1. Advocate that disaster response agencies allow researcher/clinicians direct access to children/families affected by acts of terrorism. While volunteers were able to share first hand reports about their own experiences and feelings, their observations and assessments of others, including the children and families, were informal and second-hand. Response agencies are rightly protective of the persons they serve and are reluctant to have any intrusion, including research interviews, which may be stressful or disruptive to the victims. However, much opportunity for understanding how children, adults, and families experience disaster, particularly terrorism related disaster, is lost. Strategies for data collection that minimize intrusion for victims should be conjointly developed by researchers and responding agencies. The authors' first goal of assessing caregiver behavior with their children was negatively affected by having to rely on the retrospective recollection of non-research-trained volunteers. Had there been protocols in place to allow controlled and respectful access to the families themselves, a much richer and likely more accurate set of data could have been generated.

2. Attend to the emotional needs of caregivers and first responders as they provide care for others. A review of the volunteers' self-report of what was helpful to them onsite indicates that "one-size-fits-all" debriefing may be inadequate. A menu of debriefing options that includes individual, group, task-specific, daily and exit sessions may be more likely to effectively support those working in disaster, including reduction of iatrogenic effects of debriefing (Devilly et al., 2006). More research comparing other groups of responders, particularly nonfirst responders, and their debriefing experiences is indicated.

3. Organizations that implement disaster response programs should consider developing plans for systematic follow-up with responders postresponse. Such a follow-up process should assess for ongoing needs for debriefing and/or symptom management as a support for responders. Such an assessment would also provide information useful to the organization in determining a volun-

teer's readiness to return to service and thus the avoidance of the increased risk of post-service distress that is associated with multiple deployments (Adams, 2007).

4. Expand research on the environments and volunteer qualities that maximize an effective response to children in time of disaster. Identifying the factors that are correlated with positive outcomes for the children and families served would contribute to our understanding of what makes for quality disaster childcare. Understanding what factors improve outcomes for children in disasters could lead to better policy and humanitarian efforts.

5. Our concern about the mental health needs of the disaster childcare workers was predicated on our belief that mentally healthy childcare staff are best suited to promote the mental wellness of children. While this is a generally accepted belief in the field of Early Childhood Education (Cohen, & Kaufman, 2000), an extensive literature review produced no studies showing evidence of this correlation. Research directed at the relationship between teacher/childcare provider mental health and the resiliency of the children in their care is strongly indicated.

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