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Workplace response of companies exposed to the 9/11 World Trade Center attack: a focus-group study

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The terrorist attacks of 11 September 2001 (9/11) left workplaces in pressing need of a mental health response capability. Unaddressed emotional sequelae may be devastating to the productivity and economic stability of a company's workforce. In the second year after the attacks, 85 employees of five highly affected agencies participated in 12 focus groups to discuss workplace mental health issues. Managers felt ill prepared to manage the magnitude and the intensity of employees' emotional responses. Rapid return to work, provision of workplace mental health services, and peer support were viewed as contributory to emotional recovery. Formal mental health services provided were perceived as insufficient. Drawing on their post-9/11 workplace experience, members of these groups identified practical measures that they found helpful in promoting healing outside of professional mental health services. These measures, consistent with many principles of psychological first aid, may be applied by workplace leaders who are not mental health professionals.

Keywords: disaster, employees, focus group, terrorism, workplace, World Trade Center, 9/11, 11 September attacks

Introduction

In the past two decades, at least a dozen major catastrophic events have been recorded that affected United States employees in the world, including seven in the US (Paul and Thompson, 2006). Large-scale natural disasters and terrorist attacks present massive extra-organisational stressors that can threaten the productivity and stability of organisations. Systematic study of the survivors of the Oklahoma City bombing who were conducting business in the Murrah Federal Building on the morning of the disaster (19 April 1995) found that one-third (34 per cent) developed post-traumatic stress disorder (PTSD) and nearly one-half (45 per cent) had a post-disaster psychiatric disorder (North et al., 1999). Mental health sequelae of these proportions among employees of workplaces directly exposed to disasters could be devastating to a company's workforce. In post-disaster settings, diagnosable psychiatric disorders are only the tip of an iceberg harbouring widespread psychological distress and conflict not reaching diagnostic proportions, yet substantially affecting employee functioning and productivity (North and Pfefferbaum, 2002; Felton, 2004; Shalev, 2004; Stein et al., 2004).

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The 11 September 2001 (9/11) terrorist attacks on the US were unparalleled by any other terrorist attacks in American history both in scope and in magnitude. The targets of these attacks were workplaces housing large numbers of employees—the intent of terrorism is to cause widespread fear and distress (Vineburgh, 2004). Epidemiologic research on the mental health effects of the 9/11 terrorist attacks on New York City (Breslau, Bohnert and Koenen, 2010), in contrast to prior disaster mental health research, has largely focused on populations not confined to those directly exposed to immediate danger in the disaster (Schuster et al., 2001; Galea et al., 2002; Schlenger et al., 2002; Silver et al., 2002; DeLisi et al., 2003; Boscarino et al., 2004; Stein et al., 2004; DiGrande et al., 2008); many other studies have examined rescue and recovery workers (Smith et al., 2004; Jayasinghe et al., 2005; Elhai et al., 2006; Evans et al., 2006; Katz et al., 2006; Long, Meyer and Jacobs, 2007; Jayasinghe et al., 2008; Stellman et al., 2008; Evans et al., 2009; Berninger et al., 2010; Chiu et al., 2010; Cukor et al., 2010). This body of work points to substantial widespread distress and psychiatric symptoms in these populations. Not enough is known about the mental health effects of the 9/11 terrorist attacks on employees of the former World Trade Center (WTC) who were directly and intensely exposed to the events. The psychosocial effects on these individuals may differ substantially from those on members of populations outside the immediate geographic area who were not directly exposed to the immediate danger.

The 9/11 attacks left workplaces in pressing need of a mental health response capability. Available sources of information and guidance for workplace leadership were insufficient to meet the needs of their employees after a disaster of this magnitude. Dutton et al. (2002, p. 55) remarked: 'The managerial rule books fail us at times like these'. Beaton and Murphy (2002) stressed the need to prepare workplaces to manage the emotional responses of employees in the event of a major disaster or occurrence of terrorism. A report by the National Academy of Sciences Institute of Medicine (2003) emphasised the importance of workplace preparedness for the psychological consequences of terrorism and the role of management personnel and employee assistance professionals in responding to the emotional needs of employees after a terrorist attack.

Even before the first terrorist attack on the WTC on 26 February 1993, Lewis (1993) described workplace issues that employees may encounter after traumatic events at work. Absenteeism, anger, decreased work productivity, feelings of vulnerability to further danger or injury, grief, guilt, isolation from co-workers, resentment of management, turnover in workforce, and workplace downsizing and layoffs were identified as potential threats to the workplace after traumatic events. Not long before the WTC attack of 11 September 2001, Barski-Carrow (2000) recognised that managers of businesses may be overwhelmed by the emotional needs of employee survivors returning to the workplace. Often, managers may not have sufficient experience, resources, and training to support employees emotionally and to assist with their adaptation when they return.

This report presents findings from qualitative data gathered from focus groups conducted in the second year after the 9/11 attacks with employees of directly affected

workplaces, to learn from employees and managers about their experiences and perceptions of the attacks and their subsequent return to work. Focus groups provide a means to begin investigation of topics that are poorly understood, and they may facilitate the emergence of novel concepts and issues (North et al., 2005a). Organised yet open-ended discussions elicited in focus groups allowed participants to express their concerns, experiences, feelings, reactions, and thoughts in ways not always feasible using other methods (Morgan and Krueger, 1993).

Rather than following the preconceived ideas and directions of the investigators, the emerging material represents expression of concerns highlighted by the disaster-exposed workers as described in their own words. Thus, a narrative approach to qualitative data analysis, following well-established methods employed in qualitative analysis research (Reissman, 1993; Gee, 2005; Padgett, 2008), yielded an examination of the unfolding of events over time (after the disaster) through discourse within the focus groups.

Methods

Between 13 and 28 months after 9/11, a convenience sample of 85 employees of five cooperating agencies that were highly affected by the attacks participated in one of 12 focus groups (three for managerial and nine for non-managerial employees). All five agencies, approached through personal contacts of the investigative team (among several others that were contacted), gave permission to the researchers to conduct focus groups at the workplace. One of the participating agencies lost several employees in the attacks, and the other four agencies were located either in the WTC or in the vicinity of Ground Zero. All of these agencies were large corporations with hundreds of employees; three were for-profit and two were not-for-profit organisations. In three of the agencies, employees died in the attacks, including more than 100 in one agency. The participating agencies informed their employees of the opportunity to take part in one of these focus groups. Employees expressing interest were provided with information on the research and invited to a meet with a researcher who explained the study to them. Participants supplied written informed consent before enrolment in the study, which was approved by the Institutional Review Board of Washington University, MO.

The purpose of these groups, as explained to participants, was to learn about personal concerns, experiences, feelings, reactions, and thoughts pertaining to the 9/11 terrorist attacks from the workers' own perspectives. Special care was taken to avoid directing the discussions of the focus groups, as described in previous post-disaster focus-group studies by this research group (North et al., 2005a, 2005b). Participants were asked to start by talking about where they were and what they experienced at the time of the attacks and subsequently, and then to share their thoughts about how they themselves and their workplace responded to the 9/11 incidents.

Audio-recorded focus-group discussions were transcribed to text. Using NVivo software, a research coordinator reviewed the text for recurring themes and two

trained raters categorised its passages into one or more of five theme codes ('nodes') related to pre- and post-9/11 workplace issues. Passages containing multiple themes received more than one code. Discrepancies between coders were resolved by team consensus (authors and coders). Item counts for each code were tabulated, allowing comparison of relative frequencies by category. Kappa measures of inter-rater reliability were established by this team using these text analysis methods, ranging from 0.83 to 0.88 (calculated on non-negatively scored response pairs only) (North et al., 2005b), statistics all within the excellent range of reliability (Fleiss, 1981). Quotes included in the results section below were selected by team consensus as items that illustrated best the concept of the theme. Rather than providing lengthy interpretations of the concepts, the manuscript presents direct quotes that contribute richness and clarity. This approach allows readers to appreciate the words exactly as they were spoken, thus capturing the narratives of the participants themselves, following the traditional presentation of narrative analytic frameworks (Reissman, 1993; Hyden and Overlien, 2004).

Results

The sample of 85 participants was 72 per cent female and 28 per cent male. Most (61 per cent) were Caucasian; 25 per cent were Black, 11 per cent Hispanic, 2 per cent Asian, and 1 per cent Middle Eastern. Ages ranged from 29–66 years (median = 46). Of the 85 participating employees, 22 were managers.

The following five themes emerged from the focus-group discussions (see Table 1 for numbers of passages and focus groups associated with each theme):

1. experience of transition back to work and 9/11-related psychological response of the workplace;
2. workplace response to psychological issues;
3. communication;
4. flexibility, tolerance, and productivity; and
5. workplace disruption and displacement.

Table 1 Number of responses by theme

Theme	Number of passages	Number of groups mentioning theme
Transition back to work and 9/11-related psychological response of the workplace	57	8
Workplace response to psychological issues	56	8
Communication	14	3
Flexibility, tolerance, and productivity	26	8
Workplace disruption and displacement	6	3

Actual focus-group quotes are provided below to illustrate these categories. The first two themes are the focus of the current paper; the other three themes are described in detail in a previous publication (North et al., 2010). Sub-themes of the topic of transition back to work contain material relating to participants' experiences in reconnecting with the workplace and peer support. Sub-themes of the topic on workplace responses to employees' emotional recovery after 9/11 contain material on employee expectations and satisfaction with workplace responses and demands on managers.

Transition back to work

This section, containing 57 coded passages, covers sub-themes of participants' experiences of reconnecting with the workplace and peer support.

Reconnecting with the workplace

After 9/11, senior executives immediately tried to locate their employees, telephoning people to find out 'who was alive, who wasn't, where were they, could they talk to them—it was impressive'. An employee said she was anxious to get home after the attacks to start checking people's status using a contact list of employees that her company had compiled and maintained after the 1993 WTC bombing. 'I stayed in contact with a lot of people, just trying to figure out who was alive and who unfortunately wasn't, and it was very difficult just hearing the names of close friends of mine [who were] lost and it was very devastating'.

Several comments reflected a consensus that a timely return to work was helpful. Early return to work provided welcome opportunities for support among surviving colleagues. Employees not yet back to work were able to stay connected through close telephone contact with management. One manager explained:

> *Almost every day [I checked] . . . on how they were doing. Returning to work provided opportunities to mourn lost co-workers together through workplace memorials and commemorative gatherings. All the families . . . [and] the victims' families were [at the memorial service], and . . . just how big it was to be able for all of us to be there in such a solemn place on a solemn occasion.*

Another said:

> *The morning we reopened, there were speeches by the managing partners. It made everybody feel good, and some tears were shed. We wore out the names of people [who] were lost, and that was mind-boggling – how many people we knew . . . were lost. That was the best thing that was ever done. It gave you a reason to work hard, to get the organization going and we did it; we all worked hard. . . . I tell you the truth, the department could use another one of those.*

Employees later applauded management's consistent, non-threatening encouragement to return to the workplace. Several workers felt that returning to work diminished the potential for unhealthy isolation. One manager recalled:

The staff coming in was important. I called the staff at home . . . even on the weekends, encouraging that they needed to come to work so they could be with their colleagues . . . and share how they felt. I thought, 'If I don't get these people back, I'm going to lose them completely'. Later [one employee] said, 'I was so happy you got us back to work. It was important, because all I did was watch TV at home . . . [and it] scared me to death'.

Despite consistent encouragement, some employees were reluctant to return to their jobs. Some people said: 'We don't want to come in to New York'. One employee explained, 'Every day I felt there was going to be a bomb on the train . . . that they were going to bomb me walking down the street. Having to travel into the city was the biggest thing for me at that time'. These fears were not limited to people who were in the WTC during the attacks; people who were not even in the city on 9/11 expressed such hesitations.

Others, though, commented on the negative consequences of not returning to work. A worker observed: 'One [former employee] moved on to some other work [and] is bouncing back, but [another] who was on his own is getting worse. The isolation is not good'.

These remarks demonstrate the importance as well as the difficulties involved in bringing employees back into the workplace and acclimating them to the post-9/11 workplace environment. Managers followed their inclinations to encourage employees to come back to work, and these efforts were much appreciated by the employees.

Peer support

Employees underscored the value of being with their colleagues in the wake of the 9/11 attacks. 'The effect of just being together, being with each other and seeing each other every day. . . . I really underestimated how important that was, the physical closeness. . . . Until we were together, the healing really didn't truly begin'. A manager described a memorable reunion with his staff:

In the third week or so after the 11th . . . I got a phone call from a professional member of my staff, and I could just tell by the sound of her voice she was trembling, and she said, 'Would you please come down here; we really need to see you'. . . . There was no business purpose; they wanted just to be together. They wanted to see me; lot of hugs, some tears. Just to see each other for the first time since the morning [of 9/11]. . . . [We] went out to lunch, and that in and of itself was very important. To be together with them . . . we were so close.

People spoke of increased cohesiveness among their co-workers after the 9/11 attacks: 'When people did come back to work, there was much stronger camaraderie . . . staff were relying on one another . . . communicating with one another and sharing their experiences . . . . Our group actually grew much closer'; 'People just wanted to be together.... I had to start to leave at three o'clock because I had to go around and hug everybody. So that way, I could get out by five o'clock if I started at three to hug everybody goodbye. And there was a lot of that for the first few weeks'.

One company organised a 'brown-bag lunch' discussion group to facilitate sharing and processing of their employees' experience. Initially, employees from separate divisions who had not worked together 'stared at each other and had nothing to say, [but] by the end of the hour, everybody was really talking about 9/11 . . . talking about feelings. We probably should do it again'.

Just being with colleagues may have been insufficient if they did not also share and process the experience together, as one employee related:

> *We all came back to work almost instantly, and we all worked straight through it. And we thought we were fine, and now when I look back on it, we weren't fine . . . we managed to keep our balance because we were busy and doing things. . . . There's no shortcut. Like any other death in the family, you have to [process] it.*

In the early post-9/11 period many employees had to work together in a temporary common workspace. While some found the lack of privacy compromising, others found that the intimacy and proximity of the common area facilitated emotional contact with peers: 'I don't think we would have healed as well as we did, if we could go into a room and shut a door, and lock everybody else out . . . we were silly, and laughter really helped hold things together'; 'I don't think we could have functioned if we were going to go back into separate offices and be isolated again'. This sentiment was echoed by another respondent:

> *If everyone would have gone to their offices and closed their doors, I don't know if we would have healed at all. Being forced to socialize. . . . You couldn't sit at your desk and cry and not have somebody next to you notice, and say, 'What's the matter? Are you okay?' . . . we had a lot of interaction.*

There was some debate about the utility of airing personal experiences and feelings in the workplace: 'I think it's good that people will sit, talk and share what they went through, instead of . . . [just wondering whether] they're feeling the same thing that you're feeling; that you're normal'; 'I'm a believer [in revisiting the experience] now and again and [working] it through again, and [taking] another look and see how it's feeling by now'. Preferences varied, ranging from not wanting to talk about their experience at all to needing to discuss it more than their colleagues could tolerate: 'People divide into two camps: those people who would like to talk about it again and those people who don't want to talk about it at all'. People's needs to talk also varied over time: 'I was in [a discussion group] a month or two after [9/11] happened, and we were more emotional and more upset at that time. [Now], I feel like we're all doing well'.

Post 9/11, some employees found more emotional support in the 'family' of their colleagues than in their own families. In an effort to shield their family members, they hesitated to share their experiences at home. They complained that their families did not understand what they had been through. They felt that their peers who had been there could understand in ways that their families could not. They described

their families as becoming intolerant over time, as judged by remarks such as 'get over it'. A worker explained: 'But you don't get over it. It's always going to be there, and we have to be around people who understand that we need to vent and sometimes talk about it all over again. Families are well-meaning, but they don't really get it. They want us to get well fast'. Those who did not 'get over it' as fast as their families would have liked sought support among their peers. Another worker explained:

> *In the long term, we really leaned on each other, because, frankly, our spouses got tired of hearing about it. When something like this happens, you need to talk about it a lot, [and] when I get together with my colleagues, we still cry . . . and these are the only people I can do that with. I don't want to do that in front of my husband or my kids, because I don't want to upset them.*
>
> *My husband keeps saying, 'I don't understand. I didn't realize you were so close to these people'. I said, 'What was it like when you were in Vietnam? Do you remember how you felt about your buddies?' That's how I feel about these people . . . you kind of go through the wars.*

In retrospect, bringing employees back to the workplace in the aftermath of the attacks was apparently therapeutic for them because of the opportunities it provided for exposure to the healing powers of camaraderie and social support of co-workers. Employees had many positive things to say about being back with their colleagues in the workplace. They described the spontaneous efforts of employees to support each other emotionally as being particularly helpful.

Workplace response to psychological issues

This section, including 56 coded passages, covers the sub-themes of employee expectations and satisfaction with psychological support and demands on managers to respond to the emotional needs of their employees.

Employee expectations and satisfaction with psychological support

Efforts made by employers to provide psychological support did not go unnoticed by employees. Some expressed gratitude:

> *They were looking out for people, and there were places to go for individual therapy and continuing with the group therapy sessions. You always felt they were cognizant of what was going on and that people needed something. I've heard . . . that it hasn't been the same [at other companies]. . . . Our employer has done a good job.*
>
> *We had support in the office. . . . A big group [of psychiatrist volunteers] went to all our offices and made themselves available . . . people that get on the phone with you and talk to you about it one-on-one. . . . The counselors were very good . . . they did follow up. We had four or five . . . group therapy [sessions]. . . . On the anniversary, we also had social workers.*

Other employees criticised initial mental health services provided at the workplace as superficial responses to their emotional needs. Support was not continuous and many felt it was unavailable to them at the times they most needed it:

> *Right at the beginning . . . they had the day at the Plaza where we could all go the next day or try to find friends and they had food. . . . They had some counselors over there, but they just come over and kind of talk to you . . . nothing more. . . . I think [the company made] a big mistake because we needed [real help] right away.*

> *When the six-month anniversary came I felt a huge letdown from the help that we probably needed at that time. Since then, it has definitely gotten better, but the beginning [was] so hard that we didn't even know what we were going through or dealing with. It's important for [services] just to be there, even if you're not looking for [them]. The reason why they stopped was because no one went to the sessions . . . [but] we couldn't go to the sessions . . . because [we were] in a fog . . . walking zombie[s].*

> *I was starting to get [really] depressed . . . the reality of everything started to get deeper, and a lot of anger started to surface. . . . They had stopped giving counseling here for about four months . . . then everything went downhill. They did bring [back] the counseling, but it was too late. We were already on edge.*

One individual questioned whether mental health professionals could possibly help any 9/11 survivors:

> *I had to go to group therapy and individual counselling. . . . Do I think my psychiatrist or social worker . . . have a real sense? No . . . This was so massive, so traumatic, that I defy you to find many psychiatrists [who are] . . . equipped to cope with that. . . . I just don't know what would qualify them . . .*

At one company, a small group of employees took the initiative to offer emotional support to one another to supplement shortcomings they found in mental health interventions provided by their workplace. Criticising their company for focusing attention and financial resources on the customers while ignoring the needs of its own employees, a group of workers developed and implemented their own makeshift mental health crisis intervention programme for their peers. This programme was remarkably successful: 'First session we had . . . 12 [workers]. The second session, which was three hours later . . . [there] was close to 70 people. That's how quickly the word spread'. Another programme volunteer added: 'The next day, I came back, and we just continued our stress relief sessions. . . . We still had a whole gaggle of peer support people, with more enthusiasm than I've ever seen . . .'.

Employees described a number of different kinds of interventions provided in the workplace to assist them with their emotional distress, including professional mental health services. While they appreciated the mental health services, they were also critical of them.

Demands on managers

Company managers felt strong expectations from their employees to meet workplace psychological needs. However, they felt ill equipped to deal with the emotional reality among their employees. One described these difficulties:

> *[Raising the alert level] brought back . . . the fears . . . of people in my group. I had somebody who was completely hysterical . . . absolutely terrified [who] manages people beneath me and could not cope, and spread this fear to other people, so [they] were not able to work. . . . I spoke to her at length. . . . I wasn't sure . . . what was the right thing to be telling her.*

A manager had concerns about one of his employees who was left unnoticed in the WTC during the 9/11 attacks because nobody knew he was there. The manager said he did not know how to handle this employee who 'lost his focus' at work after the incident.

Managers struggled to maintain attention to their staff's emotional needs while simultaneously managing their own grief and shock. They felt expected to dismiss their own feelings and sacrifice their own healing for the well-being of their employees. They experienced their employees' attitude as: 'You [managers] deal with it . . . instantly snap into manager mode and don't worry about your own personal issues. . . . Deal with *our* personal issues!' Managers wished they could have just told their staff: 'We're as shell-shocked as you are'. 'One guy lost practically all his staff . . . and he said, "Can I grieve, too? It's not that I don't care about them, but it also hurts me . . . I'm a human being, too"'. Another pointed out:

> *You're dealing with your own grief and emotions and everything that's flowing through you, and then you have to deal with being the representative of the company. I was so numb. . . . My team alone lost [a lot of] people. . . . I had to be so stiff with everything that I completely froze up.*

Although managers said they had mixed reactions about participating in company-sponsored support groups that might expose their emotions to their employees, in retrospect, some viewed it as a positive experience. One manager who attended support groups stated:

> *I went to one of those sessions . . . because I believed that managers should go and show their vulnerability, too. I didn't really like the idea, but I did like it when I actually got there. . . . Several people said, 'I'd really rather not do this with people I work with'. . . . [But] I'm glad I'm doing it. . . . It's a difficult barrier . . . people feeling that they don't really want to reveal who they are to people they work with.*

The burden of the emotional needs of family members of employees who died on 9/11 complicated the managers' ability to maintain the precarious balance of their employees' emotions and their own. In 'dealing with employees who survived . . .

families of employees who passed away . . . [a]t times I felt inadequate' to meet all the demands of both groups of traumatised individuals all at once. 'Parents . . . of the employees [who] didn't survive . . . were one of the more volatile groups'. One grieving family of an employee implied that the company had put their loved one 'at risk' when he 'moved to this job. . . . They were sort of blaming the company. . . . There was no logic to any of their arguments'. Some managers described family members who 'were just outright angry and hostile'.

Managers thought that they needed formal training to help prepare them for coping with the unanticipated emotional liabilities in the post-9/11 workplace. They wondered: 'What is the right way to treat those individuals? . . . What do you do with the employee who says, "I don't want to come to work?"' . . . 'Do you . . . suggest, "Why don't you go home?" Is that the right thing to do? . . . I almost wished I had a doctor's degree in psychology . . . because I didn't know if I was going to push people the wrong way . . .'. When people were 'not acting like themselves' after 9/11, one manager speculated whether this behavioural change would be temporary or become permanent. One manager proclaimed: 'We're now a year past the event, but the world hasn't got back to normal. Never will'.

Not only were managers dealing with their current difficulties, but they feared another event was inevitable. 'Psychological training is almost something that I wonder if managers need to [have] . . . built into what we do . . . in this new era'. According to the comments of managers, their responsibilities to assist their employees' emotional distress and to respond to the distress of grieving family members represented a substantial burden. Like the employees they were trying to care for, they too were suffering from emotional distress related to the attacks, yet they were expected to respond effectively in the highly stressful post-9/11 workplace environment.

Discussion

Participants in this focus-group evaluation of employees of 9/11-affected companies included some of the most intensely-exposed and highly-affected groups of survivors of the attacks in New York City. Both genders, a diversity of ethnicity, a range of adult ages, and both managerial staff and other employees were well represented. The large number of participants and groups conducted provided many workplace-related passages for qualitative analysis. This qualitative study, while not permitting statistical hypothesis testing, elicited concerns of those highly affected by the attacks from their own perspectives rather than from the preconceived notions of researchers, because the specific content of the discussions of these groups was essentially undirected.

The two themes presented in detail here are transition back to the workplace and the workplace response to employees' psychological issues. The theme of transition back to the workplace had two major content areas: reconnecting with the workplace and peer support. The theme of workplace response involved two major content areas: employees' and managers' experiences of the response.

The workplace mental health response actually began with the first efforts to locate and contact employees. An immediate emotional need of employees after the disaster was to receive news about the survival and losses of co-workers. Disaster preparedness plans may address this need by providing multiple secure locations for ready access to emergency contact information of employees (Paul and Thompson, 2006).

After the workplaces of the study participants became operational again, managerial efforts to facilitate a timely and healthy return to work for their employees were viewed by the employees as an essential mental health intervention. Helping workers get back to work is good not only for the company, but also for the workers themselves, by boosting employees' confidence and personal sense of control over a potentially dreaded environment.

An important effect of getting employees back into the workplace was that it facilitated the natural process of peer support. Employees described this peer support as an important component of their emotional healing. For those who were developing PTSD, returning to the workplace and the company of co-workers may have helped to counter the post-traumatic avoidance and numbing responses they may have been experiencing. The temporary communal workspaces inhabited by employees on their return to work further facilitated opportunities for employees to share and process their experiences together in an environment that reduced isolation and fostered emotional support and recovery. This peer support in the workplace provided comfort that could not be equalled by family members, who did not share their proximal exposure to the terrorist attacks.

The utility of natural supports outside the system of formal mental health care represents an emerging theme in the workplace and community settings affected by disasters. Workplace survivors of the October 2001 anthrax attacks on Capitol Hill (North et al., 2005a) similarly emphasised the importance of peer support and camaraderie of fellow employees in workplace settings that was unequalled by their families. Research by Kaniasty and Norris (1993) with older adults residing in a flooded community found that peer support, but not family support, mediated the immediate and later impact of disaster stress. Nucifora et al. (2007) underlined the importance of social support in recovery from violent workplace incidents. The resounding endorsement of the value of peer support in the current study as well as in the published literature collectively suggests the potential for social support as a source of help to be tapped to foster resilience among employees who survive disasters.

A well-established approach to promoting emotional recovery in post-disaster workplace settings is through offering professional mental health services, such as psychological counselling and group processing or support sessions (Boscarino, Adams and Figley, 2005). These kinds of mental health services constitute the usual response to the emotional needs of employees after disasters in workplace settings (Schouten, Callahan and Bryant, 2004; Boscarino, Adams and Figley, 2005; Paul and Thompson, 2006). Although focus-group participants in our study expressed appreciation for the professional workplace mental health services supplied, they noted limitations in the depth, quality, quantity, and timing of those services, which are critical aspects

of the workplace mental health response, as discussed by Dutton et al. (2002) and Schouten, Callahan and Bryant (2004).

It is also well established that most employees in settings of workplace trauma do not participate in the formal mental health services that are offered (Harvey, 1996; Schouten, Callahan and Bryant, 2004). Research has demonstrated that most employees do not develop PTSD or other psychiatric illness after workplace disasters (North, 2007; North et al., 1989, 1999, 2009; Smith et al., 1990). Thus, limiting the workplace disaster mental health response to professional mental health services in the post-disaster setting without providing other interventions to address all employees' emotional distress does not align with the types of needs of employee populations and thus is not a sufficient response. Professional mental health services are important for those with psychiatric illness in the workplace post-disaster setting, but this is not enough. A broader response is required.

The focus-group participants identified other workplace interventions by management and leadership outside of professional mental health services that successfully addressed their psychological distress, including encouragement to return to work, memorials and commemorative gatherings held at the workplace, and nonclinical forums for personal sharing and support. Consistent with these observations, the benefits of interventions outside the context of clinical mental health services have been described by Harvey (1996) as instrumental to post-traumatic response and recovery. After the 9/11 attacks, Wessely (2004, p. 154) echoed these sentiments, emphasising 'the importance of non-therapeutic factors underlying many institutional and professional responses to trauma'. By listening to the employees' descriptions of their experience and perceptions in our focus groups, we learned directly about their identified needs and what they found to be helpful. The needs expressed do not match the focus and extensive discussion in the published literature on provision of mental health services for psychiatric disorders and symptoms. Paul and Thompson (2006) cautioned that provision of support services to employees affected by collective trauma in the workplace should be directed according to employees' opinions about their own needs rather than employers' assumptions regarding their employees' needs.

Managers in the focus groups described their own set of issues in the post-9/11 workplace environment. A clear message from managers was that they felt insufficiently prepared to address the tasks demanded of them and to respond adequately to the magnitude and intensity of the emotional issues of their employees. They found it difficult to deal with their own emotions while being responsible for simultaneous and effective support of the needs of their employees as well as for attending to the pressing issues of grieving families of the employees who died in the attacks. The managers expressed a desire for formal training to prepare them for future critical incidents. In the aftermath of 9/11, they were left to rely on common sense and to draw from their own personal experience as fellow trauma survivors in their efforts to respond compassionately. Employees in these focus groups clearly were appreciative of managers' practical approach to their emotional distress as they re-entered the workplace following the attacks.

Several limitations to this study are worth noting. The participants comprised a volunteer sample that may not be representative of their workplaces, and the workplaces may not represent workplaces in general or other populations affected by this disaster or by other disasters. In particular, the participating companies in this research may have had unusual concern for their employees' emotional recovery that may have reflected down the chain to managers and employees. Women were overrepresented in the focus groups. The period of time that elapsed from the attacks to the time of the groups was approximately one to two years, potentially reducing clarity of recollection of early post-disaster experiences and contaminating participants' perspectives by external influences on their views over time. Even though confidentiality was assured in the research procedures, the group setting may have inhibited personal disclosure. Studies are needed of larger, more representative samples providing systematically collected data that may further clarify the issues identified in these focus-group discussions of highly affected, directly and intensely exposed survivors of the 9/11 terrorist attacks on the WTC.

The published literature contains little systematic guidance for post-disaster workplace response beyond recommendations for the provision of professional mental services. Dutton et al. (2002) underscored the importance of compassionate leadership to help stabilise the workplace emotionally, functionally, and financially after a traumatic incident. Argenti (2002) distilled the wisdom from a collection of anecdotal experiences after the 9/11 attacks that managerial/executive staff from several highly exposed workplaces had shared with him. More recently, Burton, Gorter and Paul (2009) described steps to build resiliency and support mental health and wellness initiatives that organisational leaders and employee assistance professionals can take to prepare for trauma in the workplace and to intervene afterward. A list of practical corporate measures to promote healing after trauma collectively identified in the above articles includes: physical presence of leadership; effective communication; modelling compassion and concern; addressing employees' immediate issues; directing resources to aid employees in need; re-establishing the work routine; formalising time-off procedures; facilitating employee discussion and processing; and memorialisation and commemoration of the event and those lost. Many of these elements resonate with workplace responses described as helpful by members of our focus groups. These practical recommendations can be applied by leaders in the workplace who are not mental health professionals (National Academy of Sciences Institute of Medicine, 2003; Flynn, Flanigan and Everly, Jr., 2005). These recommendations for responding to emotional needs after trauma in the workplace are consistent with many of the principles of psychological first aid, as previously suggested by other authors (Flynn, Flanigan, and Everly, Jr., 2005; Attridge and Vandepol, 2010).

This practical advice for managers and executives who are not mental health professionals was not systematically available to workplace management at the time of the 9/11 attacks, and they were largely left to develop and implement their own strategies for emotional recovery and healing in the workplace. Ready access to formal sources of information and training for managers and corporate leadership in effective response to the emotional needs of employees and management may help to prepare them for future critical incidents.

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