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The Impact of September 11 on Psychologists

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A variety of recent research studies have investigated the psychological impact on victims of the devastating events of September 11, 2001. The present study adopted a different approach, instead focusing on the experience of caregivers through a brief survey of state psychological association members. Overall, practitioners described modest but significant changes in both their professional work and their personal lives. Not surprisingly, those respondents working closest to Ground Zero reported the greatest changes. The sample also reported more positive than negative feelings regarding their work in the post-9/11 environment. Although the survey return rate was only 15%, the findings shed light on several important professional issues related to disaster relief, including service utilization, preparedness, and vicarious traumatization.

An entire nation was stunned by the destruction of life and property brought on by the crashing of four passenger airliners into the World Trade Center in New York City, the Pentagon in Washington, DC, and a field outside of Shanksville, Pennsylvania. Ultimately, over 3,000 lives were lost and countless others were forever changed in both obvious and immeasurable ways. The disaster was experienced not only directly by thousands of individuals but repeatedly by millions of television viewers from around the world. For many, the repetitive viewing of the attacks, eyewitness accounts, and stories of survivors and rescue workers had its own traumatizing and retraumatizing effects (Galea et al., 2002; Schuster et al., 2001).

The nature of the 9/11 attacks closely fit the features known to characterize disasters with the most severe impact. In a review of the empirical disaster literature over the past 2 decades, Norris, Byrne, Diaz, and Kaniasty (2001) concluded that by far the most damaging events were those resulting from mass violence (compared with those resulting from natural or technological disasters). Furthermore, the event-level factors identified as most likely to cause severe psychological effects were massive property damage, major financial problems for the community, malicious human intent underlying the disaster, and widespread trauma (e.g., loss of life)—precisely the circumstances that reverberated from Ground Zero in New York City. According to Norris et al., this constellation of factors also describes those disasters where the need for professional mental health services is widespread and the challenge of providing such services is daunting.

It is within this context that, following the 9/11 attacks, mental health professionals were suddenly thrust into urgent and unfamiliar territory, called upon en masse to respond to the needs of individuals, families, and organizations in psychological crisis at the very same time that their own lives were thrown into upheaval. Disaster relief is inevitably a high-stakes enterprise, and tending to the pain and suffering of others carries its own unique set of risks. For example, theory and research clearly indicate that therapists can be negatively impacted by their work with survivors of trauma (e.g., Palm, Smith, & Follette, 2002). One form such harm may take is secondary or vicarious traumatization, which Pearlman and Mac Ian (1995) have defined as "the transformation that occurs within the therapist (or other trauma worker) as a result of empathic engagement with clients' trauma experiences and their sequelae" (p. 558). In many cases, the therapist experiences subclinical versions of the deleterious effects experienced by trauma survivors themselves (e.g., Pearlman & Saakvitne, 1995a, 1995b). In short, the impact on the therapist can be serious and enduring, including profound changes in the individual's view of self and others.

Understandably, the preponderance of research conducted in the aftermath of 9/11 has had as its primary goal better understanding the impact of the attacks on the immediate victims, their families, and their neighborhoods. However, investigations directed toward illuminating the experience of those in the helping professions are

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also needed. These latter studies are potentially critical for more effectively supporting and preparing mental health workers as this country faces the prospect of future disasters. The survey research reported here represents one such example. Our particular focus was on the experience of practicing psychologists. How were their professional and personal lives changed by the tragic events of 9/11? What can be learned that might usefully inform future practice?

The Survey of Practicing Psychologists

In light of time and budget constraints, we focused our data collection efforts in two ways. First, Ground Zero in New York City—where the World Trade Center was destroyed and where the greatest human devastation in sheer numbers occurred—was selected as the geographic hub of the study. Second, one specific group of mental health professionals—psychologists—was selected to receive the survey. Other key professionals in related and equally important fields, such as social work and psychiatry, were not included in the study described here. On a random basis, half of the members of the state psychological associations of Connecticut, New Jersey, New York, and Pennsylvania received by mail a cover letter, a two-page survey, and a self-addressed business reply envelope (the other half of these memberships received a different and shorter survey that is not the basis for this article). A total of 4,728 of these surveys were mailed in bulk in mid-December, approximately 14 weeks after the September 11 attacks. Responses received after February 2002 were not included in this study.

The survey contained 15 questions about the impact of September 11 and its aftermath on the psychologists. Responses to most of the items were provided on a 5-point Likert-type scale, ranging from 1 (*not at all*) to 5 (*very much so*), with response categories of *a little bit* (2), *moderately* (3), and *quite a bit* (4) in between. Four of the items inquired about engagement in new work related to 9/11, including pro bono activities, referrals from disaster-response services, new self-referred clients, and work with clients receiving financial assistance from the 9/11 charitable funds. Four other items measured changes in the respondents' psychological experience of work after 9/11. These questions asked about increased work-related stress, new feelings of work-related unpreparedness, increased positive feelings about work, and increased negative feelings about work.

Five survey items asked the respondents about changes in professional focus, greater demands on professional time, changes in their personal views of what constitutes an "irrational fear," the extent to which their personal lives have been affected, and heightened personal fears after 9/11. Two questions asked the respondents for percentage estimates of (a) the proportion of their clients experiencing clinically significant distress as a result of the 9/11 attacks and (b) the proportion of their clients for whom the events of 9/11 and their aftermath were not at all a clinical issue. With all of these items, the psychologists were also given the space to provide brief, open-ended descriptions expanding upon their numerical ratings. Demographic data regarding the psychologist and the nature of his or her professional practice were also obtained in the survey.

The work-address zip codes provided by the respondents were used to assign a geographic zone designation to each psychologist on the basis of four concentric circles of increasing radius from Ground Zero (zip code 10048). Zone 1 included all respondents whose primary practice location was within a 10-mile (16 km) radius of Ground Zero. This region incorporates all of Manhattan Island, Brooklyn, the Bronx, western Long Island, as well as Newark, Jersey City, and all of Hudson County and parts of Bergen County in New Jersey. Zone 2 included those respondents with office locations greater than 10 miles (16 km) but not more than 50 miles (80 km) from Ground Zero. Zone 3 represented the area greater than 50 miles (80 km) but not more than 100 miles (161 km) from Ground Zero. Finally, Zone 4 included all respondents with professional practices more than 100 miles (161 km) from Ground Zero. The size of the geographical zones selected was arbitrary; however, we believed that these bands could be used to identify, albeit in an approximate way, the respondents' differing levels of physical and psychological connection with the events in New York City proper.

A total of 712 completed surveys were returned. This number represented an overall return rate of 15%, ranging from a low of 12% for New York to a high of 20% for Pennsylvania. This return rate was somewhat lower than we had hoped for, but it is not unusual for a one-time mailing without follow-up. Nevertheless, such a return rate demands considerable caution in evaluating findings and generalizing from them. Because our focus was on the experience of psychologists working in clinically relevant settings, in the analyses that follow we included only those respondents who identified their primary area of work as clinical or school related. This produced a total sample size of 592. Of these respondents, 22% were from Zone 1, and 26% worked in each of the other three geographic zones. The demographic data collected from respondents revealed that there were more women than men (56% and 44%, respectively) and that the average age of the group was 51.00 years ($SD = 10.81$), with an average of 20.24 years of professional experience ($SD = 11.06$). The majority of the psychologists had obtained a doctoral degree (87%). In regard to primary area of professional focus, 52% identified themselves as primarily clinical psychologists working with an adult population, and 32% listed themselves only as clinical psychologists working with unspecified clientele. Clinical psychologists working specifically with children constituted 12%, and 4% of the respondents identified themselves as school psychologists.

Based on limited information that was available from state association administrative personnel, this sample appears to be reasonably representative of the overall state psychological association members in these four states. We cannot determine which factors might distinguish those psychologists who responded to our survey from those who chose not to reply. For example, were the psychologists who were most involved in post-9/11 work or those who experienced the most burnout from working with victims of the disaster among those who did not respond? Or were those clinicians who were least impacted by these events overrepresented among those who did not return their surveys? We do not know the answer to these questions; therefore, we must be circumspect in viewing our sample as representative of the associations' full memberships. Of course it should also be noted that psychologists as a group represent only one of several mental health professions. As such, their experience of 9/11 and its aftermath is not necessarily comparable to that of social workers, psychiatrists, and other caregivers.

Overview of Survey Responses

For each survey item, Table 1 presents the geographic zone-by-zone means, the standard deviations, and the percentage of psychologists who did *not* select the *not at all* option for that item. We conducted regression analyses in which each survey item was used as a criterion measure, with the geographic zone variable as a predictor variable and years of professional experience and gender as two covariates. When we controlled for years of professional experience and gender, distance from Ground Zero proved to be a significant predictor of responses on all 15 survey items ($p < .01$), with those psychologists working closest to the site of the attacks reporting the largest changes in professional and personal experience following 9/11, the largest percentage of clients clinically affected by the disaster, and the lowest percentage of clients for whom 9/11 was not a significant issue. This finding confirms previous research documenting the impact of proximity in disaster situations (e.g., Norris et al., 2001). Controlling for the effect of geographic zone, years of professional experience and gender tended not to be significantly related to the criterion measures. The exceptions were as follows: Years of professional experience was negatively related to both reported increased work stress and feelings of unpreparedness (ps $< .01$), and gender was related to feeling personally more afraid, with women reporting higher levels of fearfulness than men ($p < .01$).

Post hoc analyses examining the differences among the four geographic zones revealed that the means for Zones 1 and 2 were different for all survey items except those measuring referrals by disaster-relief agencies, self-referrals, use of charitable funds, increased positive feelings about work, and changed view of irrational fear. Means for Zones 2 and 3 were significantly different from each other except for items measuring increased negative feelings about work, changed view of irrational fear, personal life affected, personally more afraid, and percentage of clients not distressed. Means for Zones 3 and 4 were equivalent to each other on all items except for the two client distress measures.

A close inspection of Table 1 reveals another important pattern in the responses of the psychologists. On the one hand, the means suggest that the respondents' reactions to their post-9/11 environment were relatively modest, with no single mean rating for any item reaching the midpoint (i.e., "moderate" level) of the 1–5 response scale. On the other hand, the percentage of respondents who reported at least "a little bit" of change indicates that the impact of 9/11 was quite pervasive in this sample. For example, when these percentage figures were averaged across the four zones (not shown in Table 1), we found that 42% of the psychologists engaged in some level of volunteer activity, and 49% reported providing 9/11-related services to new self-referred clients. It should also be noted, however, that only 20% of the sample reported providing services to clients referred from disaster-relief agencies, and an even smaller number (6%) had any clients who were receiving financial assistance via the charitable funds established to aid victims of the 9/11 attacks.

In regard to the items assessing the psychologists' professional and personal experiences, 57% of the respondents reported an increase in work-related stress; 50% acknowledged at least slight feelings of being professionally unprepared; 62% indicated some measure of change in their professional focus; 57% reported greater demands on their professional time; and 39% acknowledged that their view of what constitutes an irrational fear had changed at least a little bit. The percentage figures are even more striking in the personal domain: 82% of the psychologists reported that their personal lives had been affected to some degree, and 72% admitted to being at least slightly more fearful since the attacks. Not surprisingly, all of these percentages tended to be higher for

Table 1
Means, Standard Deviations, and Percentage of Respondents Who Selected a Response Other Than "Not At All" for Survey Items, by Geographic Zones

	Geographic zones											
	Zone 1			Zone 2			Zone 3			Zone 4		
Survey item	*M*	*SD*	%	*M*	*SD*	%	*M*	*SD*	%	*M*	*SD*	%
Volunteer activities	2.30	1.29	65	1.88	1.05	52	1.51	0.97	28	1.44	0.83	29
Referrals by disaster-relief agencies	1.62	1.07	31	1.47	0.92	26	1.26	0.70	15	1.17	0.52	11
Self-referrals	2.13	1.17	62	2.06	1.12	60	1.54	0.74	41	1.58	0.88	37
Use of charitable funds for therapy	1.16	0.45	14	1.19	0.66	12	1.01	0.08	1	1.02	0.13	1
Increased work-related stress	2.53	1.23	76	2.13	1.10	64	1.81	0.99	49	1.65	0.88	45
Unprepared for new work challenges	2.19	1.16	66	1.93	1.04	57	1.66	0.89	45	1.56	0.90	35
Increased positive feelings about work	2.36	1.34	61	2.23	1.25	63	1.85	1.06	50	1.73	1.00	44
Increased negative feelings about work	1.37	0.78	23	1.18	0.56	13	1.09	0.40	6	1.06	0.32	4
Change of professional focus	2.55	1.13	81	2.11	1.01	68	1.82	0.92	54	1.72	0.86	50
Greater demand on professional time	2.47	1.24	74	2.20	1.10	69	1.77	1.00	46	1.66	0.92	44
Changed view of irrational fear	1.78	1.04	46	1.59	0.90	38	1.55	0.83	39	1.49	0.80	35
Personal life affected	2.94	1.13	90	2.50	1.12	81	2.49	1.04	82	2.29	1.06	77
Personally more afraid	2.24	0.83	85	2.03	0.92	70	1.93	0.72	73	1.74	0.73	62
Clients distressed	34.1	30.6		21.7	25.0		16.2	21.0		10.0	14.1	
Clients not distressed	34.2	33.3		47.6	38.1		50.2	39.8		62.9	37.7	

Note. Zone 1 is nearest to, and Zone 4 is farthest from, New York City. Numbers in the percentage columns represent the percentage of respondents who did not respond *not at all* to that item. Sample sizes vary due to missing values for specific items, but they are approximately 128 for Zone 1, 155 for Zone 2, 156 for Zone 3, and 180 for Zone 4. Significant mean differences ($p < .01$) by zone were found for all 15 items.

those psychologists working nearer to Ground Zero. Of particular note as well is the large difference between reported increases in positive versus negative feelings about work. In percentage terms, 54% of the psychologists reported at least some increase in positive feelings about work, whereas only 11% reported an increase in negative feelings. A t test revealed that the difference between means on these two survey items was significant, $t(600) = 16.11$, $p < .01$.

Open-Ended Comments

The psychologists' open-ended comments to the survey items provide further insight into their professional and personal reactions following 9/11. Almost all of the respondents provided such remarks to several of the survey items. For example, the most frequent responses to the increased positive feelings about work item were tied to the personal meaning and satisfaction derived from feeling that as psychologists, they were making real and important contributions to the welfare of individuals and the healing of the nation at a time of great need. In some cases this included a renewed sense of purpose in their professional work, which sometimes took the form of a feeling of greater connection with clients and their experiences. Further, the public recognition of the value of the profession also produced a sense of satisfaction for many respondents. The most frequently reported response to the increased negative feelings about work item was the sense of inadequacy and/or helplessness in the face of such enormity of suffering. Also common, but somewhat less so, was the feeling of burnout and exhaustion from the experience of working to help victims of 9/11, related in part to feeling both overburdened and, on occasion, underappreciated.

The most frequent open-ended comments in response to the increased work-related stress item took three primary forms. One noteworthy source of stress was the daunting challenge of providing effective support and assistance to clients while struggling to come to grips with comparable or identical issues in their own personal lives (e.g., loss, fear, etc.). Second, the sheer magnitude of the clients' pain, suffering, and grief brought on by the terrorist attacks and their aftermath exceeded what the respondents could readily handle. A third source of stress was the increase in referrals and other demands on their time reported by some of the psychologists. Those respondents who offered comments on the item concerning being unprepared for new work challenges most frequently referred to a lack of sufficient training in skills or techniques they deemed especially important to have in responding to the tragedy. Specifically mentioned were unfamiliarity with trauma work, crisis intervention/disaster-response training, and community outreach strategies. Some of the psychologists also described a more emotional sense of being unprepared to handle both their clients' and their own personal reactions at the same time.

Responses to the item regarding greater demand on professional time often referred to increased referrals and/or more time (e.g., phone calls) devoted to ongoing clients. Volunteering at disaster service centers was a related greater demand, as was the time committed to new training/workshops in specific disaster counseling skills or meetings to address organizational or community needs. Finally, some respondents also noted that their roles as psychological professionals spilled over into their personal lives, with friends and family calling upon them for assistance and support in dealing with 9/11 and its aftermath. Not surprisingly, the open-ended descriptions on the change of professional focus item most often referred to greater reliance on intervention approaches and strategies targeted specifically to client issues and distress surrounding the 9/11 attacks. These client reactions clustered around heightened anxiety, trauma-related reactions, and issues of grief and loss. At the same time, many of the psychologists also noted changes related to their own activities, such as increased volunteer work and/or the pursuit of additional training (or offering of such training to others) in those arenas deemed most relevant to more effectively helping clients (i.e., crisis intervention techniques). In regard to the changed view of irrational fear item, open-ended comments described a range of reactions without any especially dominant themes. Included were ideas that fears of flying or tall buildings are no longer irrational, that "paranoid" thoughts are now suddenly "healthy," and that irrational thinking is far more pervasive than it had previously been.

In a different realm, the most frequent open-ended responses to the personal life affected item took either of two directions. On the positive side, many psychologists noted that they felt closer to their families as well as an increased awareness of the need to adjust priorities, stay connected (or reconnect) to deeper values and relationships, and so on. On the negative side, some respondents reported increased personal anxiety, tiredness, sorrow over personal loss, and a loss of boundaries demarcating work from personal life. Finally, in their open-ended reactions to the personally more afraid item, the psychologists' most common responses involved fears of additional terrorist attacks, bioterrorism, and crowds. They also reported hesitancy to travel (especially by air), greater caution and hypervigilance in general, and fearfulness that their "old way of life" would now be lost.

Predicting Work Stress, Unpreparedness, and Positive Feelings

To further clarify some of the potentially important relationships among the survey variables, we conducted hierarchical multiple regression analyses to examine the extent to which various factors were able to predict the psychologists' responses on three key work-related dimensions: increased work stress, feelings of unpreparedness, and enhanced positive feelings about work. For each model, the psychologists' years of experience, gender, and geographic workplace zone were entered first. Next, the four types of new post-9/11 work (i.e., volunteer activities, etc.) were entered. Finally, the items measuring change in professional focus, greater demands on professional time, changed views of irrational fear, impact on personal life, heightened personal fearfulness, and proportion of clients' experiencing significant 9/11-related distress were entered as predictors.

Table 2 presents the summary statistics for these three full regression models, all of which were statistically significant. In the full model predicting increased work-related stress, the impact of geographic zone and new work related to 9/11 was largely accounted for by other variables. The most important predictor of increased stress was greater demand on professional time, with change of professional focus, impact on personal life, heightened personal fear, and client distress also significant (and all positive) predictors. The changed view of irrational fear variable did not

Table 2
Regression Analysis Summaries, Including Standardized Coefficients and R^2 for Full Models

Predictor variable	Increased stress β	Feeling unprepared β	Positive feelings β
Years of experience	−.08*	−.06	.02
Gender	.01	.04	−.04
Geographic distance zone	−.06	−.12**	.01
Volunteer activities	−.04	−.01	.19***
Referrals by disaster-relief agencies	.06	−.01	.05
Self-referrals	−.01	.04	.08
Use of charitable funds for therapy	.00	.03	.01
Change of professional focus	.13**	.07	.22***
Greater demand on professional time	.36***	.16**	.09
Changed view of irrational fear	.01	.20***	.09*
Personal life affected	.16***	.04	.13**
Personally more afraid	.11**	.12**	−.05
Clients distressed	.16***	−.01	.05
R^2 (full model)	.49***	.23***	.30***

* $p < .05$. ** $p < .01$. *** $p < .001$.

contribute to the model. Years of professional experience was a modest negative predictor, with more experienced psychologists reporting less increased work-related stress.

In the full model predicting feelings of unpreparedness, the impact of the new work variables was again accounted for by other variables, but geographic zone remained a significant predictor in the complete model; those psychologists working closer to Ground Zero reported stronger feelings of being unprepared. Although not a significant factor in the work-related stress model described previously, changed views of what constitutes an irrational fear was the most important predictor of feelings of unpreparedness, followed by greater demand on professional time and feeling more personally afraid (all positive beta weights). Change in professional focus, impact on personal life, and client distress were not significant predictors of felt unpreparedness even though these three variables did contribute to reported increases in work-related stress.

In the full model predicting increased positive feelings about work, the impact of geographic zone was accounted for by other variables, but volunteer activities related to 9/11 remained an important positive predictor. The change of professional focus and impact on personal life variables were also significant positive contributors. Although greater demand on professional time was important in the work-related stress and unpreparedness models, it was not a significant predictor of increased positive feelings about work. Not surprisingly, it appears that the heightened demands were not themselves sources of greater satisfaction; instead, specific aspects of the increased workload—the change in professional focus and volunteer activities with those directly impacted by the disaster—created more positive feelings about work.

Implications for Professional Practice

Providing Disaster Relief Services

Overall, our respondents reported only a modest increase in new clients following the terrorist attacks. Even those practitioners working closest to Ground Zero indicated that only a third of their current clients were experiencing significant clinical distress linked to the events and aftermath of 9/11. This raises important questions about the extent to which the public utilized the skills and services of psychologists (and other mental health professionals), especially in light of concerns over the high percentage of New York City residents with possible stress reactions of clinically diagnosable levels immediately following the attack (e.g., Galea et al., 2002; Graham, 2001).

In this light, it is important to acknowledge the broad range of volunteer activities described in the respondents' open-ended comments, as well as their self-reported changes in professional focus and increases in demands on professional time. Direct service to individual clients was complemented by a diverse array of other ways in which psychologists contributed their expertise outside of the confines of their standard clinical practices. They engaged in a variety of psychosocial and psychoeducational activities in their communities, providing support to other volunteers, coworkers, and schools (students, teachers, and administrators), including talks to parent–teacher associations and other groups and interviews on local radio and television on how to reassure children and adults alike. Beyond this, many psychologists noted the "quasi-professional" support they provided to friends and family.

Evidence from traumatic disasters in other countries documents that it is not unusual for the demand for professional mental health services to be modest, often reflecting a cultural resistance to any implication that professional psychological help is needed (e.g., Bracken, Giller, & Summerfield, 1995; Dwairy & Van Sickle, 1996; Morris & Love, 1992). It is possible that the same public response may characterize the United States as well. Moreover, many victims were appropriately instructed that their stress reactions were normal responses to an abnormal and extraordinary event—for which emotional and economic support were deemed more fitting than psychotherapy. This underscores the importance of psychologists' efforts to find alternative ways to reach out and provide help in disaster emergencies. In this regard, professional associations can assist by promoting public recognition of psychologists as not only clinicians who treat pathology but as experts in behavior and emotions and the normal problems of living as well.

The Question of Vicarious Traumatization

Proximity to Ground Zero was at least modestly associated with greater reported changes on the part of the respondents in virtually all areas we measured in our survey. This is not surprising (e.g. Norris et al., 2001), but it does demonstrate that the psychologists working in the immediate vicinity of the disaster site faced a unique set of compound challenges. As such, one of the serious risks to these caregivers was vicarious traumatization (e.g., Norcross, 2000; Pearlman & Mac Ian, 1995). Indeed, several of the factors believed to promote these complications—the recounting by clients of horrific losses in graphic detail, the therapists' own identification with the experience of clients, and the human-made nature of the disaster itself—were undoubtedly present in the aftermath of 9/11. Nevertheless, only a small percentage of the respondents with practices near Ground Zero rated their work stress as "very much" increased, and the Zone 1 group on average reported a significantly greater increase in positive rather than negative feelings about their work.

One reason that the psychologists we surveyed may have escaped the hazard of secondary traumatization is that they appear not to have been faced with the cumulative impact of heavy caseloads of clients retelling their trauma-related experiences. Although this is a serious risk for those practitioners who engage exclusively or predominantly in work with trauma survivors (e.g., Pearlman & Mac Ian, 1995), the Zone 1 psychologists in our sample reported that on average, the impact of 9/11 and its aftermath was a clinically significant issue for only a third of their clients. This perhaps inadvertent balancing of clients with and without trauma issues is consistent with the recommendations of researchers on vicarious traumatization (e.g., Pearlman & Saakvitne, 1995a, 1995b). The factors that potentially contribute to adverse reactions by trauma specialists are complex (e.g., Follette, Polusny, & Milbeck, 1994; Kassam-Adams, 1995; Schauben & Frazier, 1995). However, one specific benefit of more widespread training in disaster relief and trauma work is that, when a large-scale crisis arises, it would enable the unique stresses of trauma counseling to be distributed more widely among caregivers, thereby acting as a bulwark against the vicarious traumatization of any single practitioner.

Another factor that appears to mitigate the secondary stress experienced by trauma workers is the presence of a supportive organizational environment. Batten and Orsillo (2002), for example, have reported on findings showing that therapists who received empathic support from others during their work following the Oklahoma City bombing had lower levels of secondary traumatization and psychological distress. Although our survey did not investigate these issues, it is broadly recognized that one noteworthy aspect of the aftermath of 9/11 was the way in which citizens across the country "pulled together" in a united display of resilience and resolve. In this light, psychologists (and other mental health providers) may well have felt supported in their efforts by millions.

Future Preparedness

The attacks on 9/11 were both unanticipated and devastating. This human-engineered disaster and its catastrophic consequences surpassed anything readily imagined by a citizenry largely unfamiliar with the first-hand experience of terrorism. In this light, it is certainly unreasonable to expect that either the "man in the street" or the practicing clinician would have been fully prepared for what lay ahead when we all awoke on the morning of 9/11. And yet this issue of disaster preparedness—at both the individual and the collective level—is now an unavoidable priority for our nation and our profession. Our survey highlights important factors related to the feeling psychologists have of being unprepared to face the professional challenges posed by the aftermath of 9/11, and each has implications as we look forward.

First, feeling unprepared was linked both to unexpected changes in the psychologists' own perceptions of what constitutes an irrational fear and to increases in their own personal fearfulness. Many clinical approaches, in one way or another, engage the practitioner and client in a collaborative venture to assess, understand, and perhaps alter the problematic or "distorted" beliefs that interfere with the client's healthy adjustment. Often, we communicate that the source of the client's difficulties is not solely the negative experiences themselves but also the meaning that these events have for him or her. For example, when we treat people who suffer from severe anxiety, we may rely heavily on the notion that the terror our clients experience is truly an overreaction to a level of danger that they must simply learn to disregard.

However, whether openly or covertly, we often use our own personal level of apprehension as a yardstick for assessing whether dangers are realistic and whether avoidance behaviors are appropriate in a given situation. Clearly, such therapeutic models depend heavily on explicit or implicit benchmarks for categorizing reasonable as opposed to irrational fears, and these are just the standards that experiences like 9/11 can shatter—even if only temporarily. In the larger picture, unless catastrophes the magnitude of 9/11 tragically become a regular part of our daily lives, then objective measures of risk will change very little (e.g., the car rides to and from the airport will remain more dangerous than the legs of the journey traveled by plane). But as practitioners we are likely to be challenged more than in the past when attempting to persuade our clients—or ourselves—that certain fears or worst-case scenarios are still implausibly unrealistic. Should circumstances evolve whereby these perceptions are transformed into legitimate concerns, then as practitioners we will need to learn, as our colleagues have done in areas of protracted conflict around the world (e.g., Batten & Orsillo, 2002), how best to assist our clients in coping with high levels of chronic threat.

Although our survey does not allow us to answer the important question of whether practicing psychologists were able to fully meet the need for their services, the respondents reported that their feelings of being unprepared were in part tied to the greater demands on their professional time following 9/11. This is not surprising. Sudden crises will inevitably stretch the resources of those called upon to provide aid, particularly when these workers are already fully engaged in their professional work prior to the disaster. The challenges posed by heightened demands on time are obviously exacerbated when practitioners must devote part of their time to learning the basics or specifics involved in working with traumatized populations.

In this light, it may be important to recognize that for psychologists, training in trauma work can no longer be the domain of only a specialized segment of our professional community. We need to be both technically and emotionally prepared to work with those

struggling from deep personal and shared losses. Training at both the graduate-school level and through continuing education opportunities should be constructed with an awareness that all of us are increasingly likely to be called upon to help individuals, families, and communities who are confronting the prospect or reality of traumatic losses brought on by human-made disasters. However, because it is simply not feasible to expect that all psychologists will become trauma experts, it is crucial that those with these skills be readily identified when needed. Here organized psychology—at national, state, and local levels—can take on valuable roles in disseminating educational and best-practice information (e.g., Foa, Hembree, Riggs, Rauch, & Franklin, 2001) and in mobilizing support networks (including supervision and consultation), such as the American Psychological Association's (2002) Disaster Response Network, for psychologists who suddenly find themselves in the eye of the next storm.

The Silver Lining

As a final note, it seems important to reiterate the finding that our respondents reported levels of increased positive feelings about work that overshadowed increased negative feelings about work in the aftermath of 9/11. Anecdotal evidence from open-ended survey comments suggests that many psychologists greeted the new professional challenges with energy and dedication that enhanced their sense of purpose and that perhaps enabled them to respond resiliently during a period of heightened stress. It is noteworthy that participating in volunteer activities appeared to contribute significantly to the respondents' favorable outlook on their work, as did the reported change in their professional focus. The "value added" features of being a professional psychologist in the aftermath of 9/11 may have served to at least modestly rejuvenate the practitioners who responded to our survey. Of course, it should be remembered that our sample was a relatively small subset of those to whom we mailed the survey and that our survey assessed only the short-term impact of these events on the respondents.

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