UC Irvine
UC Irvine Previously Published Works

Title
Early Responses to School Violence

Permalink
https://escholarship.org/uc/item/1vt256f0

ISBN
9780203051320

Authors
Hawkins, Nikki A
McIntosh, Daniel N
Silver, Roxane Cohen
et al.

Publication Date
2007-09-12

DOI
10.1300/j135v04n03_12

Copyright Information

Peer reviewed

Early Responses to School Violence: A Qualitative Analysis of Students' and Parents' Immediate Reactions to the Shootings at Columbine High School

Nikki A. Hawkins
Daniel N. McIntosh
Roxane Cohen Silver
E. Alison Holman

SUMMARY. On April 20, 1999, two angry students attacked Columbine High School. The unprecedented murder/suicide resulted in 15 deaths, more than 20 injuries, and thousands of psychologically traumatized individuals. We present a qualitative analysis of interviews conducted two weeks after the incident with 4 Columbine High School students and 7 parents who were directly and indirectly affected. Findings highlight both similarities and variability in immediate emotional, cognitive, and social responses to the mass violence. Helpful and unhelpful support attempts are noted. Implications of the media's heavy in-

volvement in sensational traumas are discussed, emphasizing important considerations for future research on the psychological effects of school violence. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <http://www.HaworthPress.com> © 2004 by The Haworth Press, Inc. All rights reserved.]*

KEYWORDS. School violence, workplace violence, terrorist attacks, coping, media, adjustment, traumatic events, social support

On April 20, 1999, in a middle-class suburb of Denver, Colorado, two youths attacked Columbine High School. Before taking their own lives, they killed 12 classmates, one teacher, and injured more than 20 others using sawed-off shotguns, assault rifles, pistols, and 30 bombs (Bartels, 2002). Because the motive of the perpetrators appears to have been to punish the members of the school community for perceived years of teasing (Adams & Russakoff, 1999; Weintraub, Hall, & Pynoos, 2001), we see their attack as a dramatic attempt at emotional abuse.

The Columbine attack far exceeded the magnitude of previous school violence, and it remains America's deadliest school assault (Yettick, 2002). Over 2,000 people work and learn at Columbine. In addition to the 15 fatalities and over 20 severe injuries, many were traumatized through witnessing killings, seeing killed or injured peers, and seeing, smelling, and hearing indications of the attack. About 300 people were trapped in the school for hours while their families waited for news. Over 8,000 individuals were potentially eligible for victim assistance, with 9,000 estimated to be in the "high-risk" group for psychological difficulties (Weintraub et al., 2001, p. 147). Indeed, exposure to such violence is linked with distress, intrusive thoughts, difficulties concentrating, and social concerns, among other reactions (Buka, Stichick, Birdthisle, & Earls, 2001; Howard, Feigelman, Li, Cross, & Rachuba, 2002).

Those exposed to the incident were challenged with recovering from a trauma that was new to them and to most people who assisted in their coping efforts. The mental health community responded in large numbers to aid the victims and their families. In the first three days, the county mental health center spent 1,600 staff hours helping Columbine students, families, and staff; the number and type of interventions provided by local, state, and national organizations and individuals is inestimable (Weintraub et al., 2001). However, due to the unprecedented nature of mass school violence, these workers were necessarily functioning with less information and context than they needed

(Weintraub et al., 2001). In our discussions with mental health workers in the community, we repeatedly heard frustration about the need for more information that could help mental health professionals understand the experiences of individuals victimized by mass violence. Similar frustration has been expressed by those working to help victims of the September 11th terrorist attacks (Sealey, 2001). Moreover, community members felt their experiences were not adequately represented by the media presentations on the survivors' responses, nor reflected in the public comments made by vocal members of the mental health profession.

This report provides qualitative information from individuals interviewed in the immediate aftermath of the attack on Columbine. By documenting the experiences of some victims, we intend to give voice to the variety of experiences of victims of mass violence and allow for more informed study of responses to such events. Especially with the increased likelihood of terrorist attacks in the U.S., we must advance research that is sensitive to the experiences of victims of mass violence so as to provide consistent and genuinely helpful assistance in its wake.

The literature on coping with trauma is replete with studies on responses to many types of traumatic events (Norris et al., 2002). Our study adds to this body of research in three ways. First, reacting to traumatic events is a dynamic process in which responses are influenced by individual and social variables (Kaniasty & Norris, 1995; Lepore, Silver, Wortman, & Wayment, 1996; Tait & Silver, 1989; van der Kolk, 1996). The dynamic nature of responses requires early information on reactions, but few studies have collected such data (see Holman & Silver, 1998; Shalev et al., 1996, for exceptions). We focused on obtaining immediate responses (within two weeks of the event). Second, much of the literature on the effects of traumatic violence focuses on the minority of individuals who display signs of acute or posttraumatic stress disorders. In contrast, our investigation focused on a group of individuals who were not necessarily in need of, or desirous of, professional help. We set out to document a range of normal responses to an abnormal event. Third, we were particularly interested in the social context in which responses to trauma occur, and we recognize that providing social support to others can be a stressful experience (Cohler & Lieberman, 1980). The Columbine attack provided an opportunity to examine the effects on, and responses of, key members of the primary victims' social networks: Their parents.

Our intent was to glean from the adolescents and their parents insight into immediate psychological effects of their experiences with mass violence. We focused on understanding emotional and cognitive responses, feelings about talking to others about their experiences, and the larger context of general so-

cial responses. We considered these issues at the intersection of the victim's subjective experience and the support of the social network as crucial to understanding psychosocial adjustment after traumatic or stressful events (Holman & Silver, 1996; Pritchard & McIntosh, 2003; Silver & Wortman, 1980; Tait & Silver, 1989). Discussing traumatic experiences with a supportive audience can also facilitate long-term adjustment (Lepore et al., 1996; Pennebaker, 1989), whereas an unsupportive environment may exacerbate the maladaptive tendency to focus one's attention on the past (Holman & Silver, 1998; Holman & Zimbardo, 2003; Lepore et al., 1996; Tait & Silver, 1989). The dynamics and experience of such interactions may be affected by the type of trauma (Norris et al., 2002). Thus, we specifically considered our respondents' social experiences.

Moreover, as noted to us by community members, the media often focus on reactions that are dramatic and negative, omitting the heterogeneity of responses. Perhaps due to the lack of data on acute responses, the common use of clinical samples, and inaccurate portrayals by the media, laypeople and professionals hold several unsubstantiated beliefs about coping (Wortman & Silver, 1987, 1989, 2001). In analyzing our interviews, we examined two of these assumptions: (1) an expectation of uniformly strong negative emotions, with little expectation of positive emotions, and (2) a belief that talking or grief counseling immediately after a loss is a demonstrably useful intervention. Here, we consider the validity of these beliefs through interviews with individuals who did not seek immediate help from professionals following this trauma. In all areas, we wanted to hear what was important to our respondents, and present this as a guide for future research.

METHOD

Participants

We interviewed four female Columbine High School students ages 15 to 17, and seven parents (six female) ages 41 to 49. All students had one participating parent. Three Columbine High School parents did not have participating children. To increase confidentiality, we do not distinguish reports of the father from those of the mothers; moreover, there were no clear gender differences.

Procedures

Participants responded to flyers distributed the week after the attacks at a community memorial service, a local mall, and the makeshift memorial

grounds adjacent to the school. The flyers invited Columbine High School students and parents to participate in research on coping with the attack. To take part, students had to be at school on the day of the shootings. Parents had to have a child in attendance that day. All who volunteered participated in a structured interview with a trained interviewer in their own home or a quiet setting of their choice. Interviewers had been previously unknown to participants. Interviews lasted approximately one hour and were tape-recorded.

Unfortunately, a series of negative events in the Columbine area after the shootings (e.g., community reactions to media intrusion, pending litigation involving the Board of Education, an Internet threat resulting in another closure of the school, and the shooting deaths of two Columbine students) led to premature termination of data collection.

Measures

The interviews consisted of closed-ended and open-ended questions developed to assess cognitive responses (e.g., ruminative thinking, searching for meaning in the event, undoing, or counterfactual thinking), emotional responses (frequency and intensity of specific positive and negative emotions), and social adjustment (interpersonal support and conflict, frequency of ventilation with different social contacts) in the immediate aftermath of the shootings. Data used in this report primarily come from the open-ended questions. Examples of questions include, "What meaning have you found in this experience?" "Since the shootings, have other people done things that have been particularly helpful to you as you have tried to cope with the shootings?" and, "If so, what have they done?" Additionally, we asked whether the shootings had an effect on family, then friends, and then community relationships, and, if so, what effect they had.

Analysis

The interview audiotapes were transcribed. Responses to closed-ended questions were entered into a statistical program and analyzed to detect similarities, differences, and general trends in the reported experiences of students and parents. Responses to the open-ended questions were also entered into a database for coding, filing, memoing, and diagramming of the data. We coded the data specifically for content pertaining to cognitive responses, emotional responses, and social adjustment of students and parents. Below, we summarize these findings and highlight unanticipated themes that emerged from the open-ended responses.

RESULTS AND DISCUSSION

Exposure

Student exposure. All students heard bombs exploding, and most could smell smoke from the explosions. Two heard or saw guns fired. When the attack began, two were in classrooms. Of these, one heard screams in the hallway, but neither knew what was happening until after they evacuated the building. Once outside, they learned of the ongoing attack and were told to flee. Although these two were not aware of the danger until they were outside the school, their experiences were intense and traumatic [quotations have been edited to enhance confidentiality]:

> (Student) We were just standing around and all of the sudden we heard an explosion and we could see it across the street over by the parking lot and the cafeteria. We were like, "ok, this is serious." Kids were really crying and word started spreading around that people had been shot. People started looking for friends and starting to panic . . . It really started hitting home when we heard another explosion . . . And we just bolted into the neighborhood . . . I started freaking out then because I couldn't find my little brother. (Student) And we heard something, we didn't know what it was but I think now it was probably like a pipe bomb . . . We saw more kids running so we ran, all the way to [the] park and there we just kind of didn't know what was going on. One of my other friends was crying very hard . . . She had seen [a teacher] bleeding, he was shot and he was bleeding and she was very scared about that. I saw a lot of people out there. There were a lot of rumors going around about what had happened. From there, the whole group started running into the neighborhood, I don't know why, but we did.

Two students were not able to escape the building before knowing of the attack. One was in the cafeteria (where the shooting started) when the attack began, and the other was in the library (where most fatalities occurred). The student in the cafeteria said her first warning was from a student who yelled, "Someone has a gun" and a janitor who told everyone to "get down." She escaped to a room where she could hear gunshots and bombs exploding where she had been. This student fled the building with friends and stayed with them at a nearby public library.

The student who had been in the school library when the shootings began had the most direct exposure. This student hid under a table and witnessed the killing of several students:

> I was in the library and we started hearing gunfire outside and everyone kept working. I assumed it was construction, that's what it sounded like

to me. So everyone kept working and then a teacher came in and she started yelling "get on the floor there are students with guns" and she got on the phone and we got under the table and I just got under the table assuming it was probably some kid walking around thinking he was cool you know and had just pulled it out of his backpack or something. So I was just under the table talking to some kids I knew and we were just talking you know and we started hearing gunfire downstairs and people were screaming and it got pretty scary. They came into the library and started shooting people . . . and they shot the black kid because he was black . . . They shot people in the library and then they left, I don't know why.

When the shooters left the library, this student fled the building.

After escaping, all but one of the students congregated in homes of people they did not know. They watched television coverage of the attack, and tried to telephone their parents:

The basement was full, the first floor was full and we turned on the news and started to watch what was going on . . . everybody started to try and use the phones to call their parents because it was all over TV and we didn't want them to be, like, freaking out. But the lines were totally jammed; you couldn't get out. You kept getting busy signals. Even people's cell phones weren't ringing.

Although each student had a different experience, all shared a sense of confusion, chaos, and terror in response to the events. Information was scarce and largely inaccurate, students were unsure about what to do, and they were unclear about why they were doing the things they were doing. Many had difficulty finding parents and getting back to their homes. When they learned what had happened and who had been affected, all realized that they knew at least one person who had been injured and three realized that someone they knew had been killed.

Parent exposure. Five of the seven parents were at work when they learned of the shootings; two were at home. Most parents were notified of the attack by friends or relatives who telephoned them. The others learned through television or radio. Learning about the attack was stressful; six had to wait some length of time before hearing that their child was okay. None were in any danger from the shootings, but several were indirectly exposed. One heard gunshots from home and performed first aid on severely injured students. Another was in a hospital where students were being treated. Another witnessed a child being rescued by officers crouched down covering the child for protection while running to safety. Of the

parents not exposed in such direct ways, all but one reported being halted by road-blocks in route to meeting their children.

Negative Emotional Responses

Immediate reactions. All students and most parents said their initial reactions entailed confusion and disbelief. After learning more, however, most students and parents felt scared and panicked. Those who did not feel extremely panicked said they kept their minds on some particular task. For one student, that task was getting herself and her friends away from immediate danger. One parent indicated that she did not feel anxious because she was focused on helping injured students and paramedics stationed near her house. Whereas intensely focusing on tasks prevented these respondents from feeling panicked, others indicated that they were not able to focus on specific tasks because panic had overtaken them.

In the days after the shootings, respondents reported experiencing an array of emotions. Almost all reported feeling devoid of emotion or "numb" immediately after the shootings. However, during the days immediately following the events, feelings of numbness began to subside. With time, students and parents reported thinking more about the effects of the events and they became increasingly aware of their emotions, which were often intensely negative. "I'm finding it more difficult to carry on now than I did in the immediate crisis," said one parent almost two weeks after the shootings; "I'm finding out that I do really well in the moment of crisis and in the aftermath . . . but [now] it's harder for me."

Most experienced many intense negative feelings in the first two weeks, and nine of eleven reported that these feelings were more prevalent than positive feelings. Half the students reported that the negative emotions were overwhelming at times and prevented them from functioning; half said that the negative emotions were never very strong. All parents indicated that overwhelming negative feelings had prevented them from normal functioning at times.

Respondents reported how often they experienced nervousness, misery, guilt, and irritability. Nine experienced all these, even if only momentarily, during the first two weeks. Among the students, the most common negative feeling was nervousness; among the parents, it was misery and irritability. Some students reported being nervous specifically about returning to school, a place filled with reminders of their proximity to a life-threatening incident.

Nervousness and anxiety. Nervousness related to returning to the site of the event is particularly important in school and workplace violence, because victims are often re-exposed to the site after the incident. Although an attack in the school or workplace may allow victims to avoid the site for a short period, it often neces-

sitates a return some days later. Work and school are arenas in which individuals must function well. Nervousness related to the introduction of a violence-related stimulus after some delay may be an unusual aspect to consider when evaluating the ongoing impact of such violence.

Aside from nervousness regarding returning to school, students experienced nervousness that they could not attribute to any source. This free-floating anxiety infiltrated other emotions and activities:

> Sometimes getting out and trying to have fun helps, but I find that I'm really tense and nervous at times. Like, I went out on a date with my old friend that I hadn't talked to in a long time who had called. And I was, like, trying to be happy because I'm just totally optimistic about things but there were times when I just got really tense and weird.

Irritability. Almost all respondents reported feeling extremely irritable during the two weeks following the incident. Parents, especially, said that they felt irritable quite often and with extreme intensity. In some cases, these feelings were directed toward parenting responsibilities. Parents who had other children commented that they felt "preoccupied and not as attentive" to the other children as they would normally have been. Some reported that they had little or no energy left for their other children, and as a result, many reported feeling irritated when they needed attention. These feelings of irritation led to feelings of guilt for several parents:

> I've been more irritated with my younger [children . . .]. [I'm] having less patience with them and their questions and [I'm] just really not wanting to be available to them at all. And, I have a lot of guilt there . . . I have a lot of guilt and issues with that.

Parents also felt irritation with spouses, friends, and co-workers. One said that co-workers had not been supportive the day of the shootings and this parent felt extremely irritated with them for their lack of support. This parent now felt annoyed by almost anything they did:

> Just anyone saying anything I don't like, it really irritates me. I just can't control it, and I've always been able to control my irritability with people and be nice and now it's like, I don't care. Even my boss, I don't care. They irritate me. [They're] bothersome, and their complaints are petty. I have no patience.

This increased irritation among survivors and their primary caretakers is notable due to its potential consequences for social support. At a time when

the survivors and their caretakers may obtain benefit from the support and assistance of others, their expressions of irritability and impatience may lead members of their potential support network to retreat from engaging them.

Friction between potential support providers and the victims may complicate social support provision following a trauma (Coyne, Wortman, & Lehman, 1988; Herbert & Dunkel-Schetter, 1992). Here, we find that this problem applies not only to direct witnesses of violence but also to their supporters. Thus, normal support networks may be strained severely, especially during large-scale events. One question raised by these interviews is whether, in the case of mass violence, the shared experience of the attack increases or decreases the availability of support. Notable in our interviews were reports of difficulty with social relationships *outside* the affected community (old friends, non-Columbine parents, co-workers). Might the social nature of mass violence provide a ready-made support network? Or, might the shared nature of the attack serve to severely strain and damage support networks that have been affected? We suggest future work examine specifically the types of support, and types of social friction, that occur among differing groups (e.g., co-workers, spouses, family, friends) following such violence.

Positive Emotional Responses

Although negative feelings dominated much of the respondents' experiences after the shootings, students and parents also reported experiencing positive feelings. In fact, all reported many positive feelings in the first weeks after the events, including happiness, vigor, affection, and satisfaction. The most common and intense positive emotion reported by the respondents was affection. One parent expressed intense feelings of affection for a daughter who had escaped gunfire:

> I didn't want to let her out of my sight. I wanted to be holding her all the time or hugging her or be around her or comfort her or be around her. I couldn't do enough for her, pick up after her, whatever I could do to make her life better.

Feelings of affection were also strikingly prevalent among the students. Students reported feeling affectionate just as often as they felt nervous (the most common negative feeling), and affection was the most intense of *all* feelings reported in the two weeks after the shootings.

Although some have noted the occurrence of early positive emotions in survivors of various types of trauma and loss (Silver, 1982; Wortman & Silver,

1987; see also Tedeschi & Calhoun, 1995), there remains an almost exclusive emphasis in the literature on negative emotions and negative reactions soon after a trauma. Positive emotions soon after a traumatic event also continue to be relatively unexpected by laypeople and the popular media who commonly judge those displaying positive feelings as reacting inappropriately (e.g., von Fremd, 2002). Finding that our respondents all experienced an array of positive emotions very soon after experiencing the shootings should be taken as an important reminder of this relatively understudied, and unexpected, but apparently common phenomenon.

Variability in Emotional Experience

Almost all respondents recognized losses and gains because of the events. Students lost friends and a sense of security in their everyday routine and parents lost the trust that they had in the protection of the school. All recognized gain in the emotional closeness that they developed with family, friends, or others in the surrounding community following the shootings. The emotions reported in the two weeks after the tragedy reflected this range of outcomes. Sometimes respondents felt intense pain over the threat and loss from the events, and other times they felt happy that they had survived and were able to experience the resulting emotional closeness. ". . . [Y]ou have good days and bad days; and when they're bad, they're really bad and when they're good they're only ok," said one student.

Documenting our respondents' range of emotions is particularly important. Although negative emotions prevailed for most, all experienced positive emotions, and the most intense emotion reported by most was positive. Further, the negative emotions were broader than might have been expected. Although nervousness was dominant among those most directly affected (the students), irritability was also prominent, and most experienced a wide range of negative emotions. Further, irritability was more prevalent among the parents than among the students.

Coping occurs in a social context, and our interviews highlight that potential supporters should be aware of the probable variability in the targets of their assistance. Ironically, the traumatized individual's emotional response to the event may hinder social assistance (Silver, Wortman, & Crofton, 1990). This is especially true if the support network is not aware of the typical range and variability in emotional responses. Survivors who are not acting appropriately in the eyes of potential helpers (e.g., not sad enough, too happy, too irritable) may receive less support. Members of the victim's social network may be confused by the desire for a hug at one moment, and an irritated reply at another. Many emotions can be viewed as normal reactions to the abnormal occur-

rence. Future work should examine expectations of others regarding the emotional sequelae of victimization, and their responses to the emotional variability among survivors.

Cognitive Responses

Rumination. All respondents reported unpleasant thoughts about the shootings or their aftermath two weeks later. These ruminative thoughts were troubling and largely undesired, and only one student and one parent said they were able to prevent the ruminations. Among those who could not control them, all had trouble doing other things because the vivid memories, thoughts, and pictures of the attack played repeatedly in their minds.

Although all reported some rumination, the frequency of rumination varied substantially between individuals. For example, one student reported that the ruminations occurred only rarely and blocking them from her mind was not difficult. In contrast, one parent experienced constant ruminations and could not block them at all. Interestingly, the frequency of rumination was unrelated to the objective level of exposure to the attack. Those who faced the least direct exposure generally reported experiencing ruminations just as often as did those who had been directly exposed to guns, blood, and explosions. This finding is consistent with work by Silver, Holman, McIntosh, Poulin, and Gil-Rivas (2002), who found that the degree of psychological effects of a major trauma (i.e., the September 11th terrorist attacks) are not predicted simply by objective measures of exposure to or loss from the event.

Whereas level of exposure was not associated with the amount of time respondents ruminated, those most directly exposed spent more time and energy trying to *block* their unpleasant thoughts and memories. This suggests that either the ruminations themselves were more intense or these individuals were more troubled by the ruminations than were the others. This discrepancy underscores the importance of considering the content and nature of ruminations. Ruminative thoughts categorized broadly may not adequately explain the amount of distress incurred by them. These findings also emphasize the need to examine more thoroughly which responses might vary by exposure (e.g., perhaps content of ruminations, or response to ruminations) and which might not (e.g., the amount of rumination).

As a group, parents reported more frequent ruminations, more attempts to block them, less success in doing so, and more interference because of them than did the students. This was unexpected, as one might predict that students, who had more direct exposure to the attack, would consequently think more about their proximity to disaster. Developmental differences between adults and adolescents are one plausible explanation for this difference. This

observed difference emphasizes the importance of developmentally-informed research on responses to traumatic events, as there may be age differences in processes of adjustment to such events (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001).

Content of cognitions. Besides thinking about the event itself, respondents also reported spending considerable amounts of time thinking about ways that the shootings could have been avoided or how it could have been worse. For many, these counterfactual thoughts dominated their ruminations, which were themselves considered a source of trauma to the survivors:

> Probably one of the hardest parts was [thinking about] if [my other child] had been there. [That child] is a [part of a group targeted by the shooters], and would have been in the cafeteria. So the "what if's?" . . . By the grace of God, if [that child] hadn't [been absent], [that child] would have been there. And knowing my [child] as well as I do, [my child] probably would have tried to do something. So the "what if's" are even more so than what had happened. So, you know, the thought of "gee I could have lost [my other child]" was really traumatic.

Most said they thought about things others could have done to prevent the incident. Two students and two parents also reported thinking about what they, personally, could have done to prevent it. Both students who reported having these feelings also reported having had contact with one or both of the perpetrators before the attack. The parents who reported these feelings did not report having any prior contact with them; however, they were the parents of the students who reported thinking about what they could have done to stop the attack. It is unclear whether the feelings of personal responsibility displayed by the parents reflect an extension of the contact between their children and the perpetrators or a style of personal control shared by the parents and children. Future work should examine factors that influence assumption of potential personal control over a traumatic event, and the degree of association between a parent and child's responses to negative life events.

Aside from ruminations and counterfactuals, several other cognitive responses were noted. For example, all felt that the results of the shooting were unfair.

> (Student) It was like all the kids that never said anything [mean] to anybody . . . that were totally sweet and were those who everybody loved. It's just funny how that always happens. The kids that never would have said two [mean] words to these people. That was really hard to deal with.

> (Parent) It was just the unfairness of it all, the way they got hurt. And you know the kids [in the hospital] that could be permanently paralyzed. It's just the randomness of things that's so scary.

Vulnerability. Although no respondent was physically injured in the events, more than half felt personally cheated because of the incident. They felt stripped of a sense of security in their surroundings. Some reporting losing a sense of certainty in the future, and others reported a lost sense of control. A common feeling was that of surprise and disbelief that the shooting had happened in their neighborhood, previously believed to be immune from this type of incident:

> (Parent) Well, it shook me that it could happen here. I did feel really safe and protected in that neighborhood. I still feel good about the kids, the area, and the school . . . but, you know the safety . . . I was like, "wow."

> (Student) You know if it could happen here it could happen anywhere although it seems like Columbine was like a really extreme case. It's kind of like, we used to joke around [by saying] "Columbine 90210" because even the shooters drove like BMW's, we have a friend with a [very expensive car] that's brand new that he got when he turned 15 and it's just . . . maybe it's more extreme than other places.

It is common for trauma survivors to experience a surprising sense of vulnerability. According to Janoff-Bulman (1989), most non-victimized people operate their day-to-day lives holding to several fundamentally positive assumptions about themselves and their environment. These assumptions, known collectively as an "illusion of invulnerability," consist of three beliefs: (1) the world is benevolent, (2) the world is meaningful, and (3) the self is worthy. When individuals experience a traumatic event, these assumptions can be seriously challenged or shattered. The reactions of the respondents in our sample indicate that the shootings posed a significant threat to their feelings of invulnerability and their illusions of the world as a benevolent and fair place.

Finding meaning. When assumptive frameworks are sundered, successful coping may depend on the victim's ability to interpret the event in meaningful terms and to integrate this information into a new coherent, stable, and adaptive conceptual framework (McIntosh, 1995; McIntosh, Silver, & Wortman, 1993; Tait & Silver, 1989). By the second week after the attack, some respondents had already made progress in rebuilding their assumptive frameworks.

By the second week, all reported having tried to make some sense of the events. However, the importance of finding meaning in the events varied notably. For some, making sense of it was very important; for others, it was less so. Only one indicated that the search for meaning in the event was not at all

important. In terms of time devoted to finding meaning, the respondents' answers ranged from thinking about it only rarely to thinking about it all the time. Among the five who said that they had spent considerable time trying to make sense of the shootings, one student and two parents reported that they had been able to do so. These three each expressed unique perspectives on the meaning they had found; however, in all their accounts there existed a similar sense of understanding and identification with the shooters:

> (Student) Well, I can understand why they did it, I guess. That's not an excuse and that's a horrible thing to do, but I can kind of understand.

> (Parent) During church that morning I reflected on what it means to be on the outside–because that's what I felt. And that's when I really had a reflection on the two killers, and what it must be like for them. To be on the outside all the time, be told you can't, you can't do this, you can't do that, or you can't belong or you can't be part of it.

> (Parent) I can understand the pain, the rage, and the feelings of powerlessness that those boys must have felt. I felt some of the same pain when I was in high school . . . so, I can understand.

In addition to understanding the perpetrators' motivations, one student said she also made sense of the experience by believing that God let it happen to encourage growth and closeness in the survivors and the community. One parent made sense of it by believing that the shooters' parents and the police department were negligent and guilty of allowing the situation to occur.

Despite the success achieved by these respondents in their search for meaning, other respondents said they had searched and been unable to find answers:

> (Student) I mean . . . can you even visualize yourself doing that? I can't make sense of it. Never mind that I think it came out because they had a diary, they had been planning it for a year. That really blew everybody's mind. For most people, you get mad at somebody and it's gone 10 minutes later. You're like, "Oh, I hate them," and then it goes away. Imagine saying that for a year and then killing people. Nobody can understand.

Several who had not been able to make sense of the events expressed an *in*ability to identify with the attackers. They held the shooters responsible for their behavior:

> (Student) And when I think back on that I guess I can see how those kids didn't fit in. But it was, like, self-inflicted. They just, like, separated themselves on their own. I know they got teased, but everyone gets

teased, and I know it wasn't an everyday thing because it wasn't like, "Hey, let's pick on those kids."

Forgiveness. For several respondents, forgiveness was something that they were not ready to consider or did not think they would ever be able to extend. However, over half were trying to forgive the assailants within the first two weeks after the attack. One student had already forgiven them. As a group, respondents who expressed a desire to forgive were not more invested in finding meaning, more able to make sense of the incident, or more religious or spiritual than were those who were uninterested in forgiving the shooters. Instead, forgiveness appeared to be an independent decision made by each individual who had been affected, either directly or indirectly.

Helpful Social Responses

Those recovering from traumatic events frequently benefit from being involved in an informal social support system (Norris et al., 2002). Respondents cited many instances in which support from others was helpful. Most found it helpful spending time talking with both people who had experienced the event and those who had not. Just spending time talking and being with friends and family was the support most often mentioned as helpful. This appreciation of talking is consistent with findings on its value (Lepore et al., 1996; Pennebaker, 1989). Several said that they especially liked calls and visits from people with whom they had not spoken recently. One parent said it was helpful to know that old friends still cared.

Approximately half the respondents mentioned being greatly helped by feeling that there was a larger network of community support that had become cohesive and was supportive of them. One student felt encouraged by seeing others in the community wearing shirts and ribbons that represented the school. Many mentioned visits to the community-sponsored memorial grounds as helpful. At the memorial, it was possible to experience support from the community visually in the collections of posters, cards, flowers, and the like. The gestures mentioned as helpful fit with research suggesting that collective grieving is helpful because it allows victims to express solidarity and thus unity and collective action (Norris et al., 2002).

Quite a few respondents spontaneously mentioned their appreciation of being hugged, being close, and being held by others. One student explained her appreciation of the increased physical affection: "To actually physically hold someone and be like, 'Oh, you're still here.'" Previous research on coping with trauma has not closely examined the role of physical affection in social

support, which may be particularly important to some individuals early after a trauma.

For parents, especially, tangible forms of support were greatly appreciated. Childcare, prepared meals, and towels and sheets (given to replace ones donated to treat victims of the attack) were particularly helpful. Several students mentioned appreciation of sentimental gifts, such as stuffed animals. The parents also valued these; however, they reported gifts that relieved some normal responsibilities to be more helpful.

Unhelpful Involvement of Others

Social networks can have negative consequences, particularly when people fail to fulfill expectations for aid (Belle, 1991). This was seen in our respondents' networks. Some were disappointed by the level of support from close others, even immediately after the attack. Four parents indicated that they wanted to talk to their children about the events more than their children did, and one student indicated that family and friends did not always want to listen to what she had to say. One student wanted to talk to her parents about the events, but found that their conversations were unhelpful because they became angry so quickly. One parent said there had been less spousal emotional support than usual. "My [spouse] and I have tracked differently through this, so, we haven't been the kind of comfort we normally would be to one another."

Smothering. When respondents did receive support, it was not always perceived as helpful. Most unhelpful support could be classified as gestures that were uninvited and too restrictive of the respondents' coping efforts. For example, one student complained that her sibling tried to protect her by screening her calls. She understood her sibling was trying to help but reported that it was more frustrating than helpful because she *wanted* to talk to people. Such acts of smothering appear to be a typical response by supporters of a partner in crisis. Support given by close others who become overbearing, albeit with good intentions, can be a detriment to the well-being and recovery of the support recipient (Coyne, Wortman, & Lehman, 1988).

Structured counseling. Several respondents mentioned that structured counseling activities offered through school and the emergency response systems were not helpful. In fact, some reported these activities to be unhelpful and irritating:

> (Student) That nice little counseling activity was pretty retarded . . . limiting time on how long you can speak and making it so structured. That [counseling] activity and that day was so structured and everybody is telling everybody what to do and how to handle everything, it just doesn't work, especially when so many kids are in so many different

spots recovering. Kids who weren't even there aren't taking it as hard as the kids who were in the cafeteria, like my friend [who was] watching [the shooters] reload. It's not helping. They're trying to treat everyone necessarily the same way . . . And it was just like so hard because they're making us talk about it and, I guess that was "good" for us but it was hard.

(Parent) I remember a fireman came in and said "we need to get somebody to talk to these kids" and they did call an advocate and she came and she was probably the least helpful person there that whole day. She was *not* very effective.

These responses underscore the importance of evaluating the efficacy of post-traumatic interventions. Without such evaluation, well-intentioned interventions may do more harm than good. Programs that may be helpful to individuals who have sought professional services after a trauma may not be appropriate as community or mandatory interventions. This is consistent with work examining "confrontative" strategies for grief, in which survivors are encouraged to think about their relationship with the loved one or how the death occurred; these often portend subsequent difficulties (Archer, 1999). Some therapies show empirical evidence of success (e.g., Foa & Rothbaum, 1997; Resick & Schnicke, 1992); thus, we advocate research on *which* interventions are helpful for those experiencing violence, and on *whom* these interventions are likely to help. As our respondents' reactions point out, not all interventions will be experienced as helpful by everyone.

Too much talking. The quote above suggests that the counseling activity was aversive to the student in part because it required talking when she did not want to talk. Several parents also expressed their frustration with being asked to talk too much. "Constant interviews [were annoying]. Having to retell the story on the phone, over and over and over, to people. Rediscussing it, and rediscussing it, and rediscussing it."

This frustration with talking too much about the incident is surprising, as much social support literature contends that trauma victims want to talk openly about an event during the first two weeks (Pennebaker & Harber, 1993), and that they often desire *more* contact and support than others are willing or able to lend (Herbert & Dunkel-Schetter, 1992; Janoff-Bulman, 1992). This complaint is especially notable, as only people who *volunteered* to speak with an interviewer were in our sample. As such, this feeling may have been more prominent among those who did not volunteer. Further, in general, our respondents said that talking with others was helpful.

There are several possible explanations for the difference between our findings and the well-documented findings of the coping literature. For one, our

interviews were conducted very soon after the trauma. At this time, the incident was new and our respondents may not have talked to many friends and relatives about the events more than once. It is possible that our respondents experienced the more typical pattern of disinterest and avoidance from their support networks as time passed. In fact, research that has found dwindling or inadequate social support following severe crises has often been conducted a considerable time (several months) after the tragic event occurred (e.g., Bowler, Mergler, Huel, & Cone, 1994).

A second factor that may help explain the heightened interest of friends and family in this instance is the nature of this trauma. In contrast to other events, which may be devastating but relatively common, the Columbine attack was unprecedented. People are drawn to the unusual and unfamiliar and, thus, the phenomenal nature of violence like this may create a unique context in which supporters are more interested in hearing about the events in the immediate aftermath. Consequently, dramatic incidents of violence may have a unique effect on the type of support victims of these events receive from others.

Third, we believe that the contradiction can be reconciled by focusing on the victim's desires. The talking that was reported as aversive was initiated by others (i.e., friends, family, and counselors) who requested information and discussion. Voluntary talking was experienced as very helpful. This discrepancy suggests that it may be most helpful to present opportunities to talk, but not actually request or require discussion. Negotiating this line is likely to be difficult, and we encourage careful work examining this distinction.

Reactions to media involvement. The Columbine attack received worldwide media attention. One media representative stated, "The town was flooded with reporters, and students and their family members were inundated with flowers, fruit baskets, and good wishes on behalf of famous journalists seeking 'the get'" (Trigoboff, 2000). The media normally are not considered as components of a victim's social network; however, our respondents repeatedly talked about the media when asked about the social consequences of the events.

In the immediate aftermath of the shootings, respondents seemed to be helped by the media coverage. Several parents were notified of the situation by news programs. Students who quickly found their way to a television set after being abruptly escorted from the school learned of the complexity of the situation and of the methods advocated by police for reuniting with family members. Despite these preliminary advantages, however, students and parents experienced frustration with the inaccuracy (especially the exaggeration) of media reports:

> (Student) They hardly ever wore those trench coats. I mean, like they called themselves the trench coat mafia but they hardly ever wore them.

They made it to be like this huge deal in the media, which was just kind of retarded.

(Student) I was getting my hands on any piece of news I could, which became really disappointing because a lot of it was inaccurate. The local media did an awesome job, but I don't know . . . the national was pretty crappy. Reading it, reading how much of it was wrong, it was just kind of a letdown.

Irritation with media inaccuracy persisted three years later, as many reportedly considered media reports about their school to be "completely and utterly ridiculous" (Bartels, 2002, p. 8S).

As the hours after the incident progressed, respondents experienced many instances in which intense media involvement served as unhelpful and even hurtful social interaction. Several mentioned media intrusion being particularly unhelpful at the makeshift memorial park. As one parent expressed, it was particularly troublesome "not being able to go to the park and grieve without having a camera stuck in our faces." Others expressed irritation with being asked repeatedly to give interviews while they tried to pay their respects at the park.

(Student) The first guy who stopped me, he had a tape recorder and he was from a newspaper. He's like, "I have a casualty list do you want to see it?" and I'm like "yes" and I grabbed it from him and he's like, "I don't know if it's spelled right." And that's when I saw [a close friend of mine] was dead, which is someone I have in [class] who has been a really good friend of mine . . . Looking back on it, I got really mad because you know he showed me that just for a reaction. I didn't get halfway through the list; I was just bawling. [. . . We] just all hugged and the media was right there with their cameras just going away. They interviewed us and were just asking questions like "What were these kids like?" you know, and "How does this reflect on the school?" It was just really horrible. And so I talked to like all these media, and I got up to where I wanted to pay my respects to my friends and, um, there was a ring of 20 cameras and I had to walk through them to get to the flowers to lay them down and I didn't feel like I could stay there. I'm like "this doesn't really . . . you know . . . it's kind of something that you want to be like a private thing." So I laid them down and as soon as I did they're like, "Who are you laying those flowers down for?" You know, like one person starts talking to you and they've got a camera in your face and then five people put a camera in your face because they want it too and they don't have to ask the question. I mean it happened the whole way back and it was just totally awful.

Several complained about media following them to their homes. One parent said members of the media knocked on the door at all times of the day and night requesting interviews and that this lasted for nearly two weeks. "They'll get your name," said one student who reported receiving calls from a number of major media sources, "and it's all over."

In sum, media played an influential role in the events following the Columbine attack. The widespread attention given the events contributed to supportive gestures from the non-involved public. However, as is often the case with highly publicized traumas, support from outsiders was short-lived and resented by some (Norris et al., 2002; Trigoboff, 2000). Intrusive media involvement may exacerbate the trauma of victims of mass violence. Media influence on victims' should be studied in future investigations. The sensational nature of large-scale events is likely to generate a heavy media presence whenever they occur.

Impact on Relationships

We asked respondents whether events related to the shootings and their aftermath had an impact on any relationships, and all said the events had affected their relationships with family members, friends, and others. All students believed the events had strengthened their social ties. Students felt closer and more affectionate with their parents, they believed their relationships with their friends had grown stronger, and they reported finding a new respect for, and closeness with, others in the community. These reports of positive effects on relationships vary from descriptions of disturbances in relationships reported by adolescents who had directly experienced or witnessed interpersonal violence and who showed strong signs of PTSD (Layne, Pynoos, & Cardenas, 2001). Whether it is the mass nature of the Columbine attack, the selection of a community vs. clinical sample, or both, the factors that contribute to potential varying effects on relationships cannot be disentangled. Clearly, further work on mass violence specifically, and non-clinical samples generally, is warranted to avoid possible inappropriate generalizations.

Among the parents, the impact on relationships was less uniform. Whereas three said the incident had brought their families closer together, four felt differently. Several suggested that the events had, at least temporarily, made relationships feel more strained or distant. Some felt less patient and more irritated with loved ones, while others felt less secure and more distant from them. In terms of relationships with friends, similar differences emerged. Two felt closer with friends, three felt less close, and two were closer with some friends but more distant with others. These latter two believed that the experience had

served to weed out "real" friends from more superficial ones. All parents reported feeling increased closeness with others in the community.

CONCLUSIONS AND IMPLICATIONS

A key finding from this study is that there exists important variation in responses during the earliest period after a traumatic event. Models of reactions and strategies of intervention that do not consider such individual variation will fall short. In particular, emotional reactions were quite variable during the first two weeks after this trauma. Although numbness was common early, there was soon variation within and between individuals. Perhaps most striking, negative emotions were not uniformly more prominent than positive ones; indeed the most intense emotion reported was affection. The importance of making sense of the event varied notably between individuals, and the desire and ability to do this was not uniform. The importance individuals place on finding meaning in a traumatic life event may moderate the implications of not finding meaning (Downy, Silver, & Wortman, 1990). Future research should examine this possibility more closely.

Regarding social support, respondents noted that talking and being with friends and family was most often helpful. However, we noted an important limitation to this: Being asked or forced to talk was perceived by several as harmful. Consistent with the within-person variability in emotions, the social needs of the respondents varied over time. At times, they desired interaction with others, and at other times, they found interactions were annoying. It is important to consider this variability in the context of normal coping responses, especially when assessing the merits of psychological interventions to people coping with mass trauma.

Coping with school and workplace violence. One theme that emerged from our interviews was the difficulty the students were having returning to the scene of the attack. Responses to school and workplace violence may differ in important ways from those that occur at chance locations. Individuals who are victimized by school and workplace violence are often initially prevented from returning, and then are forced to return, or make a significant change in their lives. In the case of the Columbine attack, many students chose to finish high school at a different school because "theirs was too burned, too bloody, too spooky" (Bartels, 2002; p. 2S). The institution had to make changes, also. Balloons are banned, and the cafeteria no longer serves the meals that were on the menu on the day of the attack (Bartels, 2002; Yettick, 2002). Our respondents reported being conflicted about returning in the immediate aftermath of the attack. Indeed, half the employees working at Columbine during the attack (and all administrators but the principal)

have left, resulting in an unusually high level of turnover for the district (Curtin & Aguilera, 2002; Yettick, 2002). Future research should examine the impact of school and workplace violence on functioning within the institution, as well as the effects on, and of, post-attack attrition. Although high rates of turnover may be common after such an event, the impact on long-term functioning may be *less* than expected in some cases. For example, although a psychologist predicted in May, 1999 that Columbine High School would subsequently become dysfunctional for the students, this has not been the case according to various educational measures since then (Weintraub et al., 2001; Yettick, 2002).

Future Research

Our analysis highlights several issues in responding to mass violence and examines similarities and differences in the experiences among students and their parents. Overall, we stress the importance of considering the emotional, cognitive, and social impact of this type of event on adolescents and their caregivers. We do not intend these data to provide firm conclusions about the psychological effects of coping with mass violence (the sample is small, and almost exclusively female), nor do we wish to evaluate the experiences or coping efforts of the individuals we interviewed. Instead, this investigation informs the ongoing pursuit to better understand the psychological aftermath of mass violence. We suggest several areas for future research.

Responses across time. In some instances (e.g., desire to talk), our respondents' comments contradicted findings from studies using data collected more than two weeks post event. Our findings underscore the importance of collecting information very early after events occur. We believe that "time since event" is a crucial consideration in examining responses (Pennebaker & Harber, 1993).

Due to the early termination of data collection, we were unable to address the influence of the interval of time since the event on the reactions of interest. Coping is a process, and rates and interrelationships of responses are likely to change over time (Benight et al., 2000; Holman & Silver, 1998; Silver et al., 2002). In combination with the necessity of longitudinal studies to address the plausibility of certain causal claims (e.g., whether coping responses matter, see Silver et al., 2002), we advocate studies that begin immediately after the occurrences of violence, and continue at regular intervals for substantial amounts of time thereafter.

New topics. Qualitative studies uncover issues of importance to those who experience trauma. Two such topics emerged here. First, individuals who were able to find meaning in this event often appeared to do so by empathizing with the perpetrators. As Norris et al. (2002) point out, coping with human-caused events involves different psychological processes than coping with natural disasters. Here,

we have uncovered one way the process may differ. Future work should examine the prevalence, predictors, and outcomes of empathizing with perpetrators.

Finally, the social and psychological effects of the media deserve careful consideration. Although the media provided help early in the process to those most directly involved in the trauma, the media quickly became a significant problem. In the wake of the attack, the massive onslaught of media intrusion received a fair amount of attention by the media itself; however, the psychological effects of media intrusion after a crisis remain generally unknown and unstudied. It is important for researchers and mental health professionals to recognize the magnitude of impact that the media can have on victims and to explore further the consequences of heavy media involvement in the aftermath of sensational trauma.

REFERENCES

Adams, L., & Russakoff, D. (1999, June 12). Dissecting Columbine's cult of the athlete. *Washington Post*. Retrieved September 5, 2002, from http://www.washington post.com/wp-srv/national/daily/june99/columbine12.htm.

Archer, J. (1999). *The nature of grief: The evolution and psychology of reactions to loss*. London: Routledge.

Bartels, L. (2002, April 13). Columbine 2002: The Last Class. *Rocky Mountain News*, *S*.

Belle, D. (1991). Gender differences in the social moderators of stress. In A. Monat, & R. S. Lazarus (Eds.), *Stress and coping: An anthology* (3rd ed.), pp. 258-274. NY: Columbia University Press.

Benight, C. C., Freyaldenhove, R. W., Hughes, J., Ruiz, J. M., Zoschke, T. A., & Lovallo, W. R. (2000). Coping self-efficacy and psychological distress following the Oklahoma City bombing. *Journal of Applied Social Psychology*, *30*, 1331-1344.

Bowler, R. M., Mergler, D., Huel, G., & Cone, J. E. (1994). Psychological, psychosocial, and psychophysiological sequelae in a community affected by a railroad chemical disaster. *Journal of Traumatic Stress*, *7*, 601-624.

Buka, S. L., Stichick, T. L., Birdthistle, I., & Earls, F. J. (2001). Youth exposure to violence: Prevalence, risks, and consequences. *American Journal of Orthopsychiatry*, *71*, 298-310.

Cohler, B. M., & Lieberman, M. A. (1980). Social relations and mental health: Middle-aged and older men and women from three European ethnic groups. *Research on Aging*, *2*, 445-469.

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin*, *127*, 87-127.

Coyne, J. C., Wortman, C. B., & Lehman, D. R. (1988). The other side of support: Emotional overinvolvement and miscarried helping. In B. B. Gottlieb (Ed.), *Marshaling social support: Formats, processes, and effects* (pp. 305-330). Newbury Park, CA: Sage.

Curtin, D., & Aguilera, E. (August 18, 2002). Fleeing the pain. *Denver Post*, A-01.

Downey, G., Silver, R. C., & Wortman, C. B. (1990). Reconsidering the attribution-adjustment relation following a major negative event: Coping with the loss of a child. *Journal of Personality & Social Psychology*, *59*, 925-940.

Foa, E. B., & Rothbaum, B. O. (1997). *Treating the trauma of rape*. NY: Guilford.

Herbert, T. B., & Dunkel-Schetter, C. (1992). Negative social reaction to victims: An overview of responses and their determinants. In L. Montada, S. H. Filip, & M. J. Lerner (Eds.), *Life crises and experiences of loss in adulthood* (pp. 497-518). Hillsdale, NJ: Erlbaum.

Holman, E. A., & Silver, R. C. (1996). Is it the abuse or the aftermath: A stress and coping approach to understanding long-term responses to incest. *Journal of Social & Clinical Psychology*, *15*, 318-339.

Holman, E. A., & Silver, R. C. (1998). Getting "stuck" in the past: Temporal orientation and coping with trauma. *Journal of Personality & Social Psychology*, *74*, 1146-1163.

Holman, E. A., & Zimbardo, P. (2003). *The social language of time: Trauma, time perspective, and social relationships.* Manuscript under revision.

Howard, D. E., Feigelman, S., Li, X., Cross, S., & Rachuba, L. (2002). The relationship among violence victimization, witnessing violence, and youth distress. *Journal of Adolescent Health*, *31*, 455-462.

Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. NY: Free Press.

Kaniasty, K., & Norris, F. H. (1995). Mobilization and deterioration of social support following natural disasters. *Current Directions in Psychological Science*, *4*, 94-98.

Layne, C. M., Pynoos, R. S., & Cardenas, J. (2001). Wounded adolescence: School-based group psychotherapy for adolescents who sustained or witnessed violent injury. In M. Shaifii, & S. L. Shafii (Eds.), *School violence: Assessment, management, prevention*. Washington DC: American Psychiatric Association.

Lepore, S. J., Silver, R. C., Wortman, C. B., & Wayment, H. A. (1996). Social constraints, intrusive thoughts and depressive symptoms among bereaved mothers. *Journal of Personality and Social Psychology*, *70*, 271-282.

McIntosh, D. N. (1995). Religion as schema, with implications for the relation between religion and coping. *The International Journal for the Psychology of Religion*, *5*, 1-16.

McIntosh, D. N., Silver, R. C., & Wortman, C. B. (1993). Religion's role in adjustment to a negative life event: Coping with the loss of a child. *Journal of Personality & Social Psychology*, *65*, 812-821.

Norris, F. H., Friedman, M. J., Watson, P. J., Byrne, C. M., Diaz, E., & Kaniasty, K. (2002). 60,000 disaster victims speak: Part I. An empirical review of the empirical literature, 1981-2001. *Psychiatry*, *65*, 207-239.

Pennebaker, J. W. (1989). Confession, inhibition, and disease. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 22, pp. 211-244). San Diego, CA: Academic Press.

Pennebaker, J. W., & Harber, K. D. (1993). A social stage model of collective coping: The Loma Prieta earthquake and the Persian Gulf War. *Journal of Social Issues*, *49*, 125-145.

Pritchard, M. E., & McIntosh, D. N. (2003). What predicts adjustment among law students? A longitudinal panel study. *Journal of Social Psychology*, *143*(6), 727-745.

Resick, P. A., & Schnicke, M. K. (1992). Cognitive processing therapy for sexual assault victims. *Journal of Consulting & Clinical Psychology*, *60*, 748-756.

Sealey, G. (2001, November 5). Fragile psyches: Mental health counselors gear up for potential crisis in New York. *ABCNews.com*. Retrieved September 6, 2002, from http://abcnews.go.com/sections/us/DailyNews/STRIKE_nypsyche011005. html.

Shalev, A. Y., Peri, T., Canetti, L., & Schreiber, S. (1996). Predictors of PTSD in injured trauma survivors: A prospective study. *American Journal of Psychiatry*, *153*, 219-225.

Silver, R. L. (1982). *Coping with an undesirable life event: A study of early reactions to physical disability*. Unpublished doctoral dissertation, Northwestern University, Evanston, IL.

Silver, R. C., Holman, E. A., McIntosh, D. N., Poulin, M., & Gil-Rivas, V. (2002). Nationwide longitudinal study of psychological responses to September 11th. *Journal of the American Medical Association*, *288*, 1235-1244.

Silver, R. L., & Wortman, C. B. (1980). Coping with undesirable life events. In J. Garber & M. E. P. Seligman (Eds.), *Human helplessness: Theory and applications* (pp. 279-340). NY: Academic Press.

Silver, R. C., Wortman, C. B., & Crofton, C. (1990). The role of coping in support provision: The self-presentational dilemma of victims of life crises. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 397-426). NY: Wiley.

Tait, R., & Silver, R. C. (1989). Coming to terms with major negative life events. In J. S. Uleman, & J. A. Bargh (Eds.), *Unintended thought* (pp. 351-382). NY: The Guilford Press.

Tedeschi, R. G., & Calhoun, L. G. (1995). *Trauma and transformation: Growing in the aftermath of suffering*. Thousand Oaks, CA; Sage.

Trigoboff, D. (2000). Lessons of Columbine: Newspeople, recalling the horrors of Littleton, are learning to put saving lives first. *Broadcasting & Cable*, *130*, 26-31.

van der Kolk, B. A. (1996). The complexity of adaptation to trauma: Self-regulation, stimulus discrimination, and characterological development. In B. A. van der Kolk, A. C. McFarlane, & L. Weisaeth (Eds.), *Traumatic stress: The effects of overwhelming experience on mind, body, and society* (pp.182-213). NY: Bruner/Mazel.

Von Fremd, M. (2002, July 3). Doubts on Death Row: Was Texas Death Row mom wrongly convicted? *Good Morning America*. Retrieved 8/2/2002, from http://abcnews.go.com/sections/GMA/GoodMorningAmerica/GMA020703Texas_death row_mom. html.

Weintraub, P., Hall, H. L., Pynoos, R. S. (2001). Columbine High School shootings: Community response. In M. Shaifii, & S. L. Shafii (Eds.), *School violence: Assessment, management, prevention.* Washington DC: American Psychiatric Association.

Wortman, C. B., & Silver, R. C. (1987). Coping with irrevocable loss. In G. R. VandenBos, & B. K. Bryant (Eds.), *Cataclysms, crises, and catastrophes: Psychology in action* (Master Lecture Series, Vol. 6) (pp. 189-235). Washington, DC: American Psychological Association.

Wortman, C. B., & Silver, R. C. (1989). The myths of coping with loss. *Journal of Consulting & Clinical Psychology*, *57*, 349-357.

Wortman, C. B., & Silver, R. C. (2001). The myths of coping with loss revisited. In M. S. Stroebe, R. O. Hansson, W. Stroebe, & H. Schut (Eds.), *Handbook of bereavement research: Consequences, coping, and care* (pp. 405-429). Washington DC: American Psychological Association.

Yettick, H. (April 20, 2002). Columbine: Three years later: Echoes of a tragedy. *Rocky Mountain News*, 1B, 3B.