

Effects of the 2002 Sniper Attacks on the Homeless Population in Washington, DC

Carol S. Fullerton, PhD, Robert K. Gifford, PhD, Brian W. Flynn, EdD, Karen M. Peterson, MD, Frederick L. Ahearn, PhD, Linda Plitt Donaldson, PhD, and Robert J. Ursano, MD

ABSTRACT

Objective: Despite the prevalence of homelessness, this population has rarely been included in disaster and terrorism planning. To better understand the mental health needs of the homeless during a terrorist event and to highlight the need to address methodological limitations in research in this area, we examined responses to the October 2002 Washington, DC, sniper attacks.

Methods: We interviewed 151 homeless individuals 1 year after the Washington, DC, sniper attacks.

Results: The majority (92.7%) was aware of the sniper events; 84.1% stayed informed through the media and 72.7% had someone to turn to for emotional support. Almost half (44%) reported identification with victims and 41% increased substance use during the attacks. More than half (61.7%) felt extremely frightened or terrified and 57.6% reported high perceived threat. Females, nonwhites, and participants with less than a high school education experienced greater threat. Women, nonwhites, and younger (<43 years old) participants were more likely to have decreased more activities and 32.7% increased confidence in local law enforcement; however, 32.7% became less confident.

Conclusions: During a terrorist attack the homeless population may be difficult to reach or reluctant to comply with public health programs. Addressing barriers to health care in vulnerable groups is critical to effective public health disaster response. (*Disaster Med Public Health Preparedness*. 2009;3:163–167)

Key Words: homeless, terrorism, sniper, disaster, trauma

For more than 3 weeks in October 2002, a series of deadly sniper shootings terrorized the Washington, DC, metropolitan area. Ten individuals were killed and 4 wounded, including 1 child. Five fatalities occurred in the first 15 hours. Four of the 14 victims were gunned down at gas stations, making daily routines an anxiety-provoking experience.

Nearly 3.5 million Americans experience homelessness each year.¹ We lack empirical investigations and disaster preparedness planning for predisaster homeless individuals, who are a substantial segment of large urban communities affected by disasters and terrorism. Mental illness is substantial in homeless populations.² A cross-sectional study of 10,340 individuals receiving treatment in the Adult Mental Health Services in San Diego County, California, found that 15% were homeless.³ About 22% of the homeless experience mental illness and 30% are substance abusers.⁴ Rates of traumatic life events are also elevated in homeless individuals.⁵ Those experiencing chronic homelessness are typically male, have less education, have mental health and substance abuse problems, and have a history of incarceration.⁶ Chronic homelessness is associated with an early age of onset of major depression, drug use, and conduct disorder; greater symptoms of alcohol use disorder, schizophrenia, and antisocial personality; and lower levels of education.⁷ The largest proportion of homeless populations is individuals without shelter for brief periods due to

unfortunate life events. The average length of homelessness is 7 months.⁴ In contrast to chronically homeless people, those who are temporarily homeless are demographically similar to an average American.⁶

To identify areas of needed research, methods for conducting more rigorous study of vulnerable populations such as the homeless population, and possible policy development for the effects of terrorism on homeless in communities, the present study examined the psychological and behavioral responses of homeless people who use shelters for food and rest to the 2002 sniper attacks. Our goal was to develop knowledge to better inform preparation and support for future adverse events through understanding the impact of this terrorist event on this unique population as well as to highlight limitations in conducting research with homeless people and to provide direction for future study.

METHODS

We interviewed 151 homeless individuals at shelters in Washington, DC, 1 year after the 2002 sniper attacks in the metropolitan area as part of a larger needs assessment of vulnerable populations in times of terrorist events sponsored and approved by the DC Department of Mental Health. Inclusion criteria consisted of being homeless in the DC area at the time of the 2002 sniper attacks, being at least 18 years old, having the ability to speak English, and not being in-

toxicated at the time of the interview. Potential participants were recruited as they came to shelters for services. The study was described, an informed consent document was read to them, and they were given the opportunity to ask questions and decide whether to participate in a brief (approximately 20 minutes) anonymous semistructured interview. At the completion of the interview, they received a small amount of money for their participation. Interviewers were trained, experienced shelter workers and social work graduate students. Training ensured standardization of interviews.

A total of 151 individuals agreed to participate and completed the interview. Approximately half (53%, $N = 80$) were males. Median age was 43 years (range 19–61 years). The majority of participants were African American (90%, $N = 136$). Approximately one third (34.7%, $N = 51$) had less than a high school education, whereas 21.8% ($N = 32$) had some college or technical school education and 1.4% ($N = 2$) had completed college. The majority of participants (78%, $N = 117$) were not currently married, had children (66.9%, $N = 101$), and were currently unemployed (80.8%, $N = 122$). The majority of participants (71.6%, $N = 108$) had at least 1 traumatic or life-threatening experience during their lifetimes. Nearly two thirds (64.2%, $N = 97$) reported that violent crimes occur in the areas where they stay, and 51% ($N = 77$) have been victims of these crimes or witnessed them.

RESULTS

The majority of participants (92.7%, $N = 140$) were aware of the sniper attacks and 84.1% of the total participants ($N = 127$) reported that they stayed informed through media reports and by talking to people. During the sniper attacks, 69.5% ($N = 105$) believed they were somewhat or very likely to be shot by the snipers, and 30.5% ($N = 46$) believed that they were not at all likely to be shot. A total of 49 participants (32.7%) became more confident in local law enforcement during the sniper attacks. Although the majority of participants (96.7%, $N = 146$) did not personally know any of the sniper victims, 43.7% ($N = 66$) reported high identification with the victims. Higher identification was reported by females and nonwhites. Detailed results and significance testing are available from the author if not reported.

The majority of participants (72.7%, $N = 119$) reported they had someone to turn to for social and emotional support such as a friend, relative, pastor, caseworker, or mental health care provider. They also described receiving support from organized groups such as a church, a women's center, or Alcoholics/Narcotics Anonymous. A total of 62 (41.1%) participants increased substance use during the sniper attacks. Of the total, 34.4% ($N = 52$) increased tobacco use, 13.2% ($N = 20$) increased alcohol use, and 6.0% ($N = 9$) increased illicit drug use. Females were more likely than males to increase substance use.

Extreme Fright/Terror and Threat

A total of 92 (61.7%) participants reported a specific time or incident during the sniper attacks when they became extremely frightened or terrified. Participants who experienced extreme fright or terror reported feeling more threat (mean 10.9, standard deviation [SD] 2.70 vs mean 8.9, SD 3.06; $t = -4.122$, $df = 147$, $p < 0.001$). Participants who experienced extreme fright or terror also decreased more activities than those who did not (mean 2.96, SD 1.91 vs mean 1.79, SD 2.16; $t = -3.44$, $df = 147$, $p = 0.001$). More than half (57.6%, $N = 64$) of the participants reported high perceived threat (total score 10–15). Higher threat was reported by females and nonwhites. Those with lower levels of education (less than high school) also reported feeling more threatened (mean 10.8, SD 3.04 vs mean 9.7; SD 2.86, $t = -2.12$, $df = 145$, $p = 0.035$). The majority of participants reported moderate to high perceived threat being outdoors (83.5%, $N = 126$), being in large public places (72.2%, $N = 109$), going to shelters (47%, $N = 71$), taking public transportation (69.6%, $N = 105$), and attending religious activities (43.7%, $N = 66$). Participants who reported greater threat were also significantly more likely to report increased substance use and lower levels of safety and to decrease more of their activities.

Change in Activities

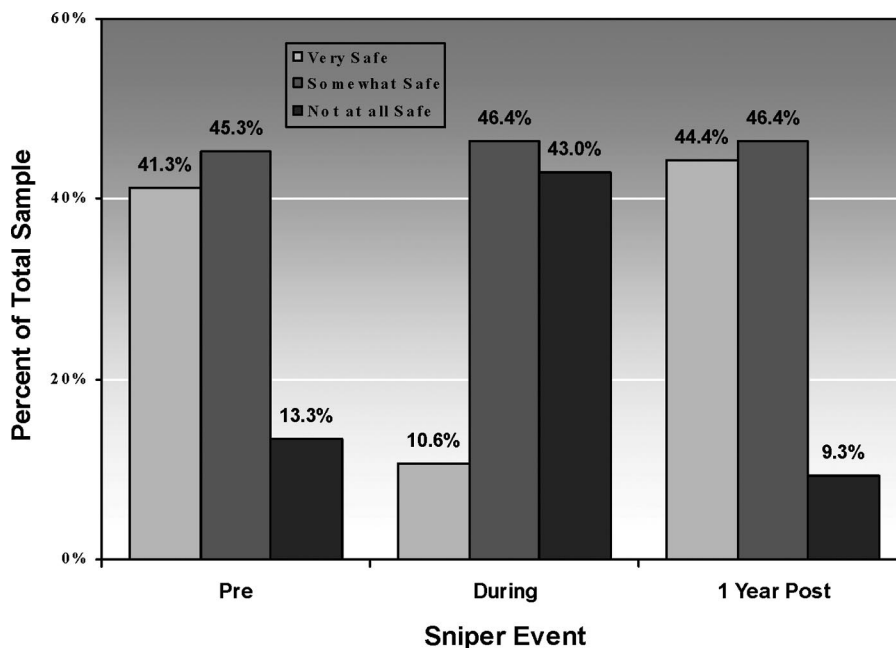
Participants reported decreasing an average of 3 of 7 activities (mean 2.50, SD 2.08, range 0–7). Women, younger people (≤ 43 years old), and nonwhite participants decreased more activities. Education was not related to change in activities. Slightly more than half of the participants (55.6%, $N = 84$) reported spending less time outdoors during the sniper attacks, and 62.3% ($N = 94$) spent less time in large public places. Importantly, 21.2% ($N = 32$) decreased their participation at homeless shelters during the sniper attacks. A total of 34 (22.5%) decreased their participation in religious activities; however, 10.6% ($N = 16$) increased attendance in religious activities. Although 11.9% ($N = 18$) decreased spiritual activities (eg, prayer, meditation), 33.1% ($N = 50$) increased these activities. A total of 49 participants (32.5%) decreased attendance at civic events or social clubs. Before the sniper attacks, 55.6% ($N = 84$) reported using public transportation as their primary method of transportation around town (bus = 37.1%, $N = 56$, and Metro (subway), 18.5%, $N = 28$). During the sniper attacks, however, 44.4% ($N = 67$) reported traveling less by public transportation (bus, Metro) during the sniper attacks.

Safety

Before the sniper attacks, 41.3% ($N = 62$) reported feeling very safe and 13.3% ($N = 20$) reported not feeling safe at all. During the sniper attacks only 10.6% ($N = 16$) reported feeling very safe, whereas 43% reported not feeling safe at all. At the time of the interview, 1 year following the sniper attacks, the perception of safety was similar to pre-sniper levels (Fig. 1). Females were more likely to report not feeling

FIGURE 1

Perceived safety in the Washington, DC, homeless population before, during, and 1 year after the 2002 sniper attacks.



safe at all during the sniper attacks compared with males (61.5% vs 38.5%, respectively, $\chi^2 = 9.66$, $df = 1$, $p = 0.002$).

DISCUSSION

Despite the prevalence of homelessness, this population has rarely been studied in disasters nor included in planning for disasters and terrorism. Our goal was to develop knowledge that may better inform preparation and support for future adverse events through understanding the impact of this terrorist event on this vulnerable population. In particular, this study highlights limitations in conducting research with this vulnerable population and suggests direction for future research methodology with homeless people.

Importantly, homeless people responded to the Washington, DC, sniper attacks much like other members of the community, regardless of proximity or actual exposure. They reported being frightened, terrified, threatened, and not safe. The majority (92.7%) were aware of the sniper events and stayed informed through the media. More than half (61.7%) felt extremely frightened or terrified sometime during the sniper attacks and 57.6% reported feeling highly threatened. Females, nonwhites, and people with less than a high school education were more likely to feel threatened during the sniper events. In addition, women were more likely to report feeling not safe. Outreach to these groups would be particularly important in the response and recovery phases of disasters and terrorist events; however, empirical research is

needed to determine effective outreach programs for disaster preparedness with the homeless population.

Perhaps surprisingly, the majority (72.7%) also reported they had someone to turn to for help (eg, friends, relative, pastor, caseworker, mental health care provider). This may be related to the fact that these homeless individuals were using shelters and therefore had maintained community and interpersonal networks. More rigorous study of support networks in the homeless population should include data obtained from organizations and individuals providing supportive resources to homeless people and comparison of these data to reports from homeless individuals.

Participants also reported substantial disruption of their usual activities. More than 65% restricted their activities, resulting in less exposure to outside and public places and even decreased use of shelters. This behavior, which appears to have been protective, may be helpful after some disasters, but may also make homeless individuals more difficult to find and vaccinate or evacuate in other disaster or terrorist events. Our results indicate that women, nonwhites, and younger homeless people would be less public and visible. Substantially fewer individuals (about 22%) decreased involvement with religious activities. Therefore, churches and ministers may remain the best contacts for reaching the homeless population after disasters and terrorism. These findings highlight Klinenberg's concept following the 1995 Chicago heat

wave suggesting that people who are disconnected from communities, vulnerable, and isolated while living in places that foster social withdrawal and insecurity, are at risk following disasters.⁸ Future research should examine primary sources for additional data on networks and resource use.

Risk communication is critical during terrorist and disaster events for homeless individuals as well as other members of the community.⁹ The majority of homeless people (84.1%) used the media to obtain information on the sniper attacks, some of which was available at the shelters where we recruited. The relationship is complex among compliance, behavioral change such as evacuation, and media communication of risk. For example, factors related to media communications to evacuate before and during Hurricane Katrina (eg, timing and number of communications) were confounded by the ability to evacuate (eg, owning a car, access to transportation).¹⁰ Although homeless people used the media to remain informed during the sniper attacks, they may not have the means to evacuate and may be difficult to locate to provide assistance to them.

Communication via the media is also important in sustaining confidence in law enforcement, which predicts compliance with public health recommendations.¹¹ In our study, 32.7% of homeless people reported increased confidence in local law enforcement during the attacks; however, 32.7% became less confident. Trust and familiarity with media communications has been shown to modify behavioral responses.¹²

Almost half (41%) of homeless people increased substance use during the sniper attacks and females were more likely to increase substance use. Increased substance use during and in the aftermath of a terrorist event is not uncommon. Following the September 11, 2001 terrorist attacks, Manhattan (New York) residents increased substance use.¹³ Baseline rates of alcohol and drug abuse in homeless people are high, approximately two thirds and 50%, respectively.¹⁴ Planning for increased substance use and resulting withdrawal and medical care needs is needed for disaster preparation for this population. To better understand health care needs in homeless people, data sources such as hospitals and shelter use should be included in future research studies.

Slightly less than half (43.7%) of homeless participants reported high identification with the victims of the sniper attacks. Females and nonwhites were more likely to identify with the victims. This cognitive process of identification with the victims of trauma is associated with increased risk in disaster workers following disasters.^{15,16} No studies have examined identification with victims in homeless people as a potential risk factor.

Overall, studies of the homeless population are limited. The characteristics of the population and lack of consensus on the definition of homelessness make sampling, tracking, and generalizing across studies of homeless people difficult. Most of our knowledge about the homeless population is based on

chronic homelessness, rather than the larger proportion who experience homelessness on a short-term basis. Further complicating efforts to gather data and generalize findings, studies of the homeless typically rely on cross-sectional and point-prevalence samples, retrospective self-reports, and the members of the homeless community who use shelters.

Studies of the homeless population show a wide range in demographics varying by city/region and location of sampling (eg, shelters, streets, service centers). Therefore, generalizing is always challenging. The present study participants use homeless shelters in the Washington, DC, area. Compared with the general Washington, DC, population, males are overrepresented in the DC population of homeless (76%).¹⁷ Our study group is highly comparable to those using shelters in the Washington, DC, area. Further study is needed and should include larger and more representative samples of various homeless populations using multiple methodologies and should make use of primary data as well as self-report.

In this study reports were also retrospective; however, relatively little is known about the effect of recall of traumatic events in accuracy of reporting in the homeless population. The potential for recall bias is high in this group due to substance abuse, mental health problems, and social issues.^{18,19} In a review of the accuracy of self-report in a community-based population of homeless, however, Gelberg and Siecke²⁰ concluded that homeless people are fairly accurate reporters. Establishing a rapport with homeless study participants is effective in obtaining reliable self-report information in this population and minimizing the potential for socially desirable responses.²¹ Given the limitations of recall bias in this population, this study highlights the need for empirical data from multiple sources to better understand the response of homeless individuals to disasters and terrorism. In addition, future longitudinal studies should include data collected in the acute phases of disaster as well as long-term study of homeless people.

We know of no other studies of homeless populations after a terrorist event. Studies of homeless people are inherently methodologically difficult. We believe this study identifies important hypotheses for future study and suggests the need for more rigorous methodology in research with homeless people, such as the use of hospital records to facilitate longitudinal study of this population. Increased planning specifically for the evacuation, health care, and mental and behavioral responses of homeless individuals during disasters and terrorism may be particularly critical in infection and contamination events. Health care providers for homeless populations are in the process of developing emergency preparedness policy for homeless individuals.²² As a result of the multiple preexisting and emerging needs of homeless people in extraordinary events, special attention should be paid to integration of preparedness, response, and recovery among key agencies and authority (eg, mental health, substance abuse, public health, medical, social services, law enforce-

ment, and faith community). Special risk communication strategies for this population are required. Lessons learned from Hurricane Katrina indicate that risk communication to vulnerable populations is critical during public health threats, including pandemic influenza, anthrax, and severe weather such as blizzards when sheltering in place is recommended.²³ Making information accessible, keeping it simple, and speaking through trusted sources is central to dealing with barriers to preparedness, especially in vulnerable populations. Consistent with studies of disaster preparedness efficacy,²⁴ planning with the homeless population instead of planning for them may result in greater compliance with instructions and directives from official sources.

CONCLUSIONS

Homeless people, an integral part of large urban communities, are often forgotten in public health planning for terrorist, bioterrorism, and other disaster events. During a terrorist attack, bioterrorism, or natural disaster, homeless people may be difficult to reach or reluctant to comply with public health outreach programs such as vaccination or quarantine, shelter in place, and evacuation. Behaviors such as not going to homeless shelters can put homeless individuals at risk of not receiving health interventions and has the potential of spreading disease to the general population. Assertive outreach programs for homeless people should be a part of all disaster planning. Disaster health policy planning for this vulnerable and often forgotten group is needed to ensure an effective public health response that addresses health needs and barriers to health care. Additional empirical studies with multiple data sources and methodologies are needed to better understand responses of the homeless population to disaster and terrorism.

About the Authors

Drs Fullerton, Gifford, Flynn, Peterson, and Ursano are with the Center for the Study of Traumatic Stress, Department of Psychiatry, Uniformed Services University of the Health Sciences. Drs Ahearn and Donaldson are with the Catholic University of America.

Address correspondence and reprint requests to Carol S. Fullerton, PhD, Department of Psychiatry, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Rd, Bethesda, MD 20814-4799 (e-mail: cfullert@erols.com).

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