Psychological Stress in Contaminated Communities As Seen from Midway Village Housing Complex

By Steve Lerner

Imagine being told that your backyard is contaminated with toxic wastes. Suddenly your relationship with your home is turned upside down. Instead of living in what you considered a safe haven, all at once you begin to question whether or not the contamination has made you ill or may cause you to become sick in the future.

After being told that you might have been exposed to toxic chemicals, you begin to see your world in a different light. The backyard, playground, and local park – once a source of civic pride – become potential danger zones. The grass and dirt your children played in could be responsible for past, current, or future disease; and your vegetable garden now looks less like a source of nourishment and more like a repository of easily digested poisons.

Being told that your immediate environment is contaminated is scary and, for many, can cause high levels of anxiety and stress. Since the contaminants are often invisible, without extensive testing it is impossible to know if you or members of your family have been exposed; and if so how much you have absorbed into your body by breathing the air, drinking the water, eating vegetables grown in the soil, or through your skin. As one expert put it "You don't know whether or not you have been exposed. You don't know whether health effects could occur. You don't know how much you have been exposed to."

Living next to toxics can cause enough stress and anxiety that health experts are now devoting academic seminars to the subject. The Agency for Toxic Substances and Disease Registry (ATSDR) recently issued a "Report of the Expert Panel Workshop on the Psychological Responses to Hazardous Substances."[1] The experts who contributed to this report recorded a number of findings that track closely with the experience of residents at Midway Village Housing Complex in Daly City, California.

Since contamination is often invisible, exposed residents frequently experience feelings of uncertainty, Pamela Tucker, the lead author of the study reports. The knowledge that health outcomes from exposure to the contamination are uncertain also leads to feelings of loss of control, demoralization, and sense of isolation, she continues. The fact that experts often differ about the extent of the contamination or the risk to health can also intensify feelings of uncertainty and anxiety among residents, which translate into psychological stress. The slow pace of testing, remedial cleanup actions, and regulatory decision-making [some 15 years at Midway Village] can also cause frustrations that lead to further stress.

Since it is difficult to sort out which physiological diseases in contaminated communities are caused by neurotoxins and which result from psychological stress, it is important *never* to suggest that reports of illness among residents are simply the result of psychological disturbances without airtight evidence. The danger here is that reports of physiological illness in contaminated communities will be dismissed as being "all in the heads" of the exposed population. If the acknowledgment of the impact of psychological stress in contaminated communities were used in this fashion, it would be a potentially lethal disservice.

This caveat aside, it is important to note that the kind of severe stress engendered by residence in a contaminated area can lead to depression, chronic anxiety, and post-traumatic stress disorder (PTSD). For example, a study in the contaminated community of Alsen, Alabama,

located near a hazardous waste facility, “revealed high levels of near clinical anxiety and depression.”

High levels of stress can also instigate psychobiological changes such as “changes in blood pressure, heart rate, and biochemical parameters.” There is a documented association between occupational stress and cardiovascular disease, notes Dean Baker, M.D., director of the Center for Occupational and Environmental Health and clinical professor at the University of California at Irvine. Often, [as is the case of the Midway Village Housing Complex] residents have difficulty “working with and trusting a complicated, multi-agency cleanup process.”

Establishing a sense that the contamination problem is being effectively remediated can also be difficult in the types of communities that tend to be located near hazardous waste sites, the report notes. “In the United States, hazardous waste sites are more likely to be found near communities populated by minority groups, especially African American and Hispanic groups,” the report continues.[2] This sub-population typically lacks trust (often with good reason) that experts and government officials will do the right thing and protect the community’s health. This can lead to intensified feelings of loss of control and hopelessness that exacerbate stress.

A complicating factor in the experience of stress among residents in contaminated communities is that, at a certain point, the stress may *not* be related to how bad the contamination actually is. “It is all in the eyes of the beholder. It tends to ignore, somewhat what goes on in the objective environment,” notes Baker.[3] This can be problematic in communities such as Midway Village, where large-scale remedial actions have been undertaken. At Midway, serial efforts were made to dig out and haul away contamination and block pathways of exposure with clean soil, concrete patios, and asphalt. These actions may have either reduced the likelihood or intensity of resident exposure to contaminants. But if residents believe that some of the grounds are still contaminated, then they will continue to experience stress despite what officials claim is an improved environment.

Sociologists note that communities affected by hazardous exposures “tend to split into factions around shared viewpoints.” This happened at Midway where several competing grassroots groups emerged along with a number of residence associations. Lula Bishop, a long-term resident at Midway Village, says that one of the most stressful aspects of the contamination were the divisions in the community and the acrimony between various factions. Other contaminated communities have also experienced this kind of factional splintering. For example, post contamination community conflict was reported in Love Canal, New York, which was afflicted with toxic lechate; and in Leger, New Jersey, which suffered from contaminated groundwater.

“With the discovery of toxic contamination, many affected communities will suffer social conflicts,” notes Dr. Stephen Couch. Contaminated communities that experience what Couch describes as “chronic technological disasters” tend to break apart with neighbor fighting neighbor over what to do. “Residents who live close to these hazardous waste sites frequently have different views of their possible exposure and its health effects,” he continues. The resulting social conflict exacerbates the primary stress of the exposure, he adds. Couch breaks down the typical sequence of events that happens after the public becomes aware of a contamination problem as follows: “After the discovery a long period of environmental turbulence begins. First, there is short-term adjustment or initial coping on individual, family, social network, and institutional levels. If the initial coping fails, then a disabling and frustration of community occurs with social turbulence. At this stage efforts at collective coping are initiated. These efforts include mobilizing social support, seeking sources of trusted information, and utilizing community or individual power. If proactive coping works, then the community can successfully form a response to contamination. If efforts at collective coping fail, social turbulence occurs, dissension or community destruction ensues, and an environmental stigma is cast on the community.” This description (of failed collective coping) accurately reflects the experience reported by a number of Midway Village residents.

Low-income African-American and Latino communities [such as Midway Village] are particularly vulnerable when contamination problems occur because of their lack of resources, observed Dr. Mildred McCain. These communities suffer multiple problems such as racism, economic deprivations, dependence on jobs with the polluting industries, fear of speaking out, lack of any services or systems to help deal with any stress, as well as endemic violence and drug abuse, she continues. “There is a high level of mistrust in government agencies” along with a history of not addressing problems, and “a lack of resources to empower people to participate and a perceived lack of power.” All these factors, plus the extra stress of living near a hazardous waste site, can turn residents into “walking poison time bombs,” she concludes.

What is needed is practical help for people living in “superfund communities;” and an acknowledgement that they face special problems, Tucker suggests. People in these communities need to be allowed to tell their story and be involved in designing solutions to their problems. Resident input into shaping a solution is critical because community members “must be accepted as experts on their own community,” Tucker continues.[4] Further, there needs to be an effective dialogue between residents and scientific experts, observes Dean Baker. Residents should be involved in efforts to “minimize the threat, to minimize uncertainty, and to enhance individual and community control,” he adds.

All the recommendations listed above failed to happen at Midway Village and, as a result, residents continue to distrust the cleanup process and continue to experience high level of anxiety and stress.

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ENDNOTES

[1] Pamela Tucker, M.D. et al, "Report of the Expert Panel Workshop on the Psychological Responses to Hazardous Substances."
[2] *Ibid.*, p.33.
[3] *Op.Cit.,* p.13.
[4] *Op.Cit., p.2.*