“Hey, Mom, Thanks!”: Use of Focus Groups in the Development of Place-Specific Materials for a Community Environmental Action Campaign

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We examined the relevance of five strategies to reduce the risk of exposure to environmental hazards for African–American and Hispanic children living in Northern Manhattan in New York City. Researchers conducting a community-wide intervention to increase awareness of environmental health hazards identified five strategies for keeping children healthy, preventing asthma, and promoting children’s growth and development. These strategies were based on current scientific knowledge of environmental health and were tested and refined through a series of focus groups. The 14 focus groups were conducted with women of childbearing age living in the communities under study. The purpose of the focus groups was to test the relevance of the five strategies and to obtain data to inform the intervention’s social action campaign. Here authors discuss the process of identifying strategies for risk reduction and incorporating community residents’ perceptions of risk into health risk messages. The authors argue that broader social and historical contexts are important in shaping community members’ interpretations of risk and subsequent response to health education campaigns.

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The mission of the Columbia Center for Children’s Environmental Health is to conduct a comprehensive community-based assessment of environmental risks to infants and children living in Northern Manhattan in New York City. Through a grant funded by the National Institute of Environmental Health Sciences and the U.S. Environmental Protection Agency, the center proposed to develop, implement, and evaluate a community-wide intervention to increase awareness of environmental health hazards in the Harlem and Washington Heights neighborhoods of New York City. The intervention began with a comprehensive environmental assessment of these two communities by the center, West Harlem Environmental Action (WHE ACT), and the Community Research Group. Steps were taken to involve community residents at all levels of planning, implementation, and dissemination of the intervention. Community participation was particularly important in the development of the intervention’s social action campaign—Healthy Home, Healthy Child: The Truth about the Environment.

African–American and Hispanic infants in Northern Manhattan in New York City are high-risk groups for asthma, adverse birth outcomes, impaired development, and cancer (1). At the start of the intervention, researchers proposed five strategies for preventing and reducing the risk of exposure to environmental hazards for children living in the communities under study. These strategies were based on current scientific knowledge that African Americans and Hispanics are exposed to the greatest levels of airborne pollutants and indoor allergens and have the highest rates of asthma morbidity and mortality in the United States and in New York City (1). The five proposed strategies were as follows:

- Keep your home free of tobacco smoke.
- Make sure your child eats a balanced diet.
- Ask your doctor about your child’s exposure to lead.
- Take steps to keep cockroaches and rodents out of your apartment.
- Get involved in the Clean Air Campaign in your community.

It was hypothesized that community education in these five areas would be effective in raising awareness of environmental health hazards and preventive behaviors that could reduce the risk of asthma for children living in the communities under study. The five areas became the proposed focal points of the social action campaign. The strategies were tested and refined in a series of focus groups with women from Harlem, Washington Heights, and the South Bronx. The goal of the focus groups was to elicit critical information about community members’ concerns and perceptions about their environment. Data from the focus groups were used to develop place-specific campaign materials for a community-wide social action campaign. Here we discuss the process by which researchers identified and tested the relevance of the five strategies. Specifically, data from the 14 focus groups are presented as context for the development of the campaign.

Methods

Study Site

Northern Manhattan–South Bronx is a densely populated urban area composed of a variety of subcommunities differing in their settlement history and current status. Each might be characterized as a “succession” community, one that has welcomed generations of immigrants, with concomitant population turnover as established groups moved to better housing or better opportunity and newcomers took their place in an increasingly stressed built environment. In addition to heavy use and minimal capital investment, the area has been affected by civic redlining, which led to the selective removal of services such as fire and sanitation services, and increased rates of destruction of vulnerable housing stock. This process of planned shrinkage was most devastating in the South Bronx, where some health areas lost as much as 80% of their housing. A third process of preferential siting of noxious facilities, such as diesel bus stations and sewage treatment facilities, has added to the health burdens faced by area residents.

Subjects

Fourteen focus groups were conducted with residents of the South Bronx, Harlem, and Washington Heights. Selection criteria included age, residency, having at least one child living in the home, and being concerned about children’s health. Participants were recruited through flyers, street outreach, and through a dense network of community

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contacts identified by the project’s community partners. A total of 103 women participated in the focus groups, with an average of 8 women per group. The women ranged in age from 18 to 50 years and had been living in the study area from 2 to 45 years.

Data Collection
Data were collected between December 1998 and July 1999 by a trained ethnographic researcher. The group discussions lasted from 1.5 to 2 hr and were audio taped. Subjects were reimbursed for travel expenses and compensated for their time. Demographic information and informed consent were obtained prior to each focus group. The interview guide was formulated on the basis of the study objectives and the ethnographer’s prior experience in the communities under study.

The major learning objectives for each of the 14 focus groups were: a) to assess existing knowledge and action concerning the five points in the Healthy Home, Healthy Child campaign; b) to explore channels for communication and the purveyors of information most likely to be respected by women in the community; and c) to explore the images and messages that exist in the community that may compete (i.e., cigarette ads) or help (i.e., lead poisoning outreach) with the campaign. These learning objectives were used to guide the on-the-scene formulation of questions that were relevant to study goals and sensitive to the evolution of each focus group’s process and content.

While data collection was in process, the project staff met regularly to discuss how findings from the focus groups could be used to inform the development of the social action campaign. Participants in these meetings included researchers, environmental activists, and community liaisons. During these meetings decisions were made to refine campaign materials in accordance with the concerns voiced in the focus groups. The data not only informed the design of campaign materials but also shaped the focus and direction of the campaign.

Data Analysis
The analysis included several tasks. First, a grid was created that outlined each question posed by the moderator and the responses generated by each participant in the group. Second, these grids were examined to delineate themes across all 14 focus groups. Third, conceptual mapping was used to organize themes into major and supporting themes. The fourth step involved reviewing transcripts and notes to identify comments related to each theme. Atlas*ti (2), a qualitative data management software, was used to facilitate coding.

Results
Scope of the Problem
Although we began the focus groups with a short and well-defined list of environmental problems, it quickly became apparent no such short list existed for people living in the area. To begin with, the concept of the “environment” was much broader than that used by people working for “environmental health” or even “environmental justice,” as shown in these comments:

For me [the environment is] the type of neighborhood you live in. It’s the people who live around you. (Group 7)

Decayed buildings, look like they’re crumbling. Kids run up in them buildings, the boys wanna climb and stuff. It’s the buildings. (Group 2)

The boilers in the projects are old. The smoke that comes out the top is bad. The new ones are on the ground outside. (Group 5)

But the problem is that the parks are infested with rats. My neighborhood was so bad that the minute it turns twilight I’m running out of that park. (Group 3)

Me and my daughter have asthma. So let me explain to you how environment played a big part on our asthma situation. Where I was living in Manhattan, my daughter was little, no problem. I moved to where I’m at now when she was three. By the time I moved in here I noticed that she was breathing really heavy. Her tonsils became enlarged. Because of all the things that were in the building. Because of the empty lot, the dust, the mold. Everything that was growing around her. (Group 7)

The garbage. It’s all over the place. (Group 11)

Second, women were worried about a list of environmental problems that was much longer than the list we proposed. In one focus group the women cited the following environmental hazards: junkies, needles, AIDS, drugs, violence, child abuse, battered wives, verbal/physical abuse, diseases, mental illness, pollution, rodents, broken-down buildings, and roaches. In general, the women had many concerns about their community and felt that the impact of those concerns was a constant source of tension in their lives. Although they agreed that the five campaign points were important, they saw other issues as more threatening. The concerns talked about most often were garbage and the impact of having drugs in the community. The tone and dynamic of the discussion often changed when discussing these issues. The women repeatedly added drugs and garbage to the list of areas of concern (Group 5).

FEMALE VOICE: What about the litter, the garbage? You gonna do something for that too? (Group 5)

MODERATOR: Well, that’s not one of the things that we have, but that’s one of the reasons why I’m sitting here talking to you.

FEMALE VOICE: You know we know because we live here.

MODERATOR: Anything else to bring up?

FEMALE VOICE: A drug-free zone.

FEMALE VOICE: That should be everywhere.

FEMALE VOICE: That would be nice.

FEMALE VOICE: People are like, “Well, if you can’t smoke it here, you can smoke it there.” Drug-free zones should be everywhere. They should have cops patrolling by the schools. That’s where the drugs dealers are.

One woman had been living in a deteriorated building and made a connection between her daughter’s poor health and the hazardous living conditions.

I notice that my daughter always got ear infections in our old house. We moved so she’s okay now. (Group 5)

Finally, the women, although angry about the state of their environment, were not sure what could be done to improve the situation. They were certainly committed to efforts that were within their control. Cleaning the house, controlling pests, working for a cleaner apartment building, and if necessary, moving were actions women routinely described. However, the environment was much bigger than the individual, and solving the bigger problems—like cleaning the air—required a community response that did not exist. One woman discussed not allowing others to smoke cigarettes in her home, but having no sense of control over air pollution:

Like I say, you can’t control that person who doesn’t maintain their car. You can’t control the factories that are in our ways. The lead—you can control the things in your home. You keep your floor clean or whatever. But once you’re out of the house you lose it. (Group 2)

Another expressed frustration at not even being able to keep the halls and elevators in her building clean:

The smoke from the cars will be released. That’s better than smelling the piss. So we don’t even concentrate on the smoke coming out of the cars and pipes. It’s the piss that stinks. It’s the people. They need to report it and do something about it. It’s like fighting a losing battle. (Group 2)

In general, we sensed that the number of problems was large and the number of people available to solve the problems was small. If the world is indeed divided as proposed by 1960s adage, “If you’re not part of the solution, you’re part of the problem,” then the world they were describing was only 10% solution and 90% problem. People were an
important part of the problem, both those within and those outside the community. In one focus group the participants discussed being embarrassed and humiliated by their peers. One Hispanic woman had this to say:

I’m talking for me, not for everybody, where I live, in my community, they don’t care too much. And it’s a shame—and I hope you don’t think I’m a racist. But the filth comes from my own race, my own race! There are a lot of Black people that live in the building. They’re the cleanest. It’s my race throwing the garbage here, doing this and that. Very few people that really care. I would say ten people out of the whole building. (Group 4)

An African–American woman had the following response to her comment:

I’ll shed some light on that because we live in the same place. She pinpointed her race. I think it’s all of us. It’s just that you don’t see what the others do because they don’t allow you to see how they are. She can’t go to everybody’s house. But the children issue, I feel like the parents that do have the children care. (Group 4)

Two other African–American women felt the problem was beyond their influence and that in general community residents are too overwhelmed to adequately address the issues:

It’s embarrassing because the people are our people. They’re too stressed, trying to work, to pay bills. They don’t care. (Group 2)

Well, to be honest with you, they know what the situation is, they know about the toxic waste, that the water is polluted, the air is polluted. It’s not even in my scope. What can I do? Because if there was something I could do I would. (Group 9)

One woman felt she did all she could to protect her household but found the problems to be beyond her control:

The doctors would ask, You got cats? Do you have dust? I have really bad allergies and so I have to keep my house clean. I have to wet mop daily. So I couldn’t understand it. Then I found out not too far from me was buried trash. (Group 7)

Another woman agreed:

I dust my house every week. Got rid of all the stuffed animals. My daughter gets allergies. I bought this air cleaner machine for the house. (Group 6)

A different participant talked about the need to work with community residents to maintain a cleaner home:

I feel like they were putting their garbage out there so their area stayed clean. The kids got sick from smelling it in our area. It’s our people too, but it’s the politicians too. Because why would you keep that clean and let us stay in a rut? (Group 2)

Scope of the Solution

Although much of what the participants had to say highlighted the limits on action, the participants’ eagerness to join the focus groups was striking to us. Residents often exploded with excitement upon learning about the project from flyers posted in the community. They phoned the staff office frequently, and their eagerness and enthusiasm often surprised us. A large number of women contacted our staff after hearing about the study from friends and relatives. Many women said they were honored to be a part of the focus group. One woman’s response to being asked to participate was “Yes, I’m surprised that anyone’s even interested in what I got to say.” Such responses were typical of the women recruited for the study.

Their descriptions of their own efforts, maintained over years despite much that was discouraging, also told a story of a commitment to a better life. Women wanted clean neighborhoods, clean parks, clean air, and clean water. They did not know how to achieve these ends. Though at high risk of burnout from the odds stacked against their actions, these were women who had not given up. They had not only ideas for solutions but also a longing for leadership and direction. They could imagine a community that worked together to its own betterment, but they were not sure how to achieve that goal.

According to the focus group participants, the biggest obstacle to uniting people for action may be the people themselves. High levels of suspicion and isolation often prevented residents from becoming involved in community activities. In general the women felt this lack of unity would be a significant impediment to making any sort of community-wide impact. Unfortunately, some of the women had had negative experiences when they attempted to work with others in their building. The following excerpt exemplified challenges faced when they tried to work with others to address community issues:

FEMALE VOICE: And what bothers me is when you try to communicate with the people and say, “Look, we all live here. Could you not put your garbage there because it bothers me? And there are a lot of us that try to keep it clean.” And they will cuss you out. (Group 9)

FEMALE VOICE: Yeah. I mean, she’s right. FEMALE VOICE: “What are you! Who are you tell me.” They’ll say, “I’ll put my garbage anywhere I want.”

The primary reason cited for such harsh responses was a lack of unity within the building and the community. Many community residents were suspicious of one another and of outsiders. The women gave numerous examples of working to overcome this lack of unity. One example follows:

So that goes back to being active and involved. One of the things that people have also said is that in general people aren’t very receptive of doing things together, they’re very suspicious. They don’t trust people. And they’re not willing to work together on something…but there were a lot of drugs going in and out of my building. So everybody got together, talked to the landlord. And now we got cops that come every night. And if they catch you in front of the building they’ll take you. And they put up a sign and everything. In the back of the building there’s a yard, but everybody throws their garbage out there, out the window or off the roof. They stopped that. I have the key for the roof and nobody’s allowed to go up there, only me. And you know that’s what really bothers me. Because sometimes my kids were doing it, and I’d be yelling at them. (Group 4)

It was clear from the focus group data that the campaign would need to foster a sense of community and break down the barriers that separate residents. The women continually discussed the divisions and separations that existed and prevented residents from successfully rallying around a cause. The women felt there was a need not only for residents to unite but also for everyone who lives and works in the community to work to achieve the common goal of a cleaner, healthier environment. The following two comments illustrated this need for a collective vision:

FEMALE VOICE: It’s a combination of things, not just the residents. That’s what I’m talking about, I think the city needs to take responsibility for those vacant buildings. You know how stores have to clean up the front of their buildings. A lot of times these vacant lots are just left and no one cares for them. There’s not a lot on my block. There’s like this big empty space. And you have to walk in the street because the rats are ridiculous. We saw a rat kill a cat. They are that big. They climb stairs and leap. (Group 2)

I work for New York City Housing. And I used to be out there cleaning up the—-they throw everything out. And we take down their name, their address and everything. We give it to our supervisor and he gives it to the manager. Do you think they people are at their apartments? They don’t do anything. They’re supposed to give them a fine, a summons to tell ‘em about a warning. But they don’t do anything about it. It doesn’t matter about no fines. They throw it outside. (Group 5)
When asked to discuss possible reasons for the separation and isolation, the women felt that, in general, community residents were overwhelmed and burdened and often felt as though they needed to protect themselves and look out for their own interests.

FEMALE VOICE: Okay, so one of the issues is that people are stressed out. People just want a roof over their heads so they won’t be cold, and don’t care what’s going on around them. (Group 12)

FEMALE VOICE: That stress, yes.

FEMALE VOICE: And one way is through getting together with other people.

FEMALE VOICE: And you don’t have to say that you’re going to an AA (Alcoholics Anonymous) meeting, or one of those. It’s just to get together, you know, like a group in your building, or you know, or something like that, or somebody having a meeting at their house. You know, just something. I mean, but when you start saying that AA thing it makes us feel like—we have problems.

Many of the women felt this need to “just get together” but were at a loss about what they should do about it. The women often said they lacked the resources needed to make an impact. They recognized the need to rally around a cause, but were unclear about the most effective way to go about organizing others. Participants were willing to be a part of a community social action campaign targeting the areas of focus discussed during the groups.

We need to get our act together and speak about it. It only takes two or three people to be heard, not a whole million of people. We can make a difference, just gotta go out there and make a difference. (Group 2)

How the Campaign Might Be Part of the Solution

Throughout the data collection process, researchers met continually to review community members’ responses to the campaign and the proposed focal points. Early on, it became clear that a social action campaign targeting Northern Manhattan needed to be global in scope. The focus group participants were adamant in their definition of the term “environment” as including all aspects of community life—from the parks and sidewalks to the merchants and buildings. The data clearly supported an expansion of what we initially considered hazardous to children’s health. Consequently, two themes were added to the campaign: managing garbage properly and fighting drug and alcohol abuse. These concerns were not included in the original proposed focus points for the campaign, but data clearly supported the inclusion of these issues as threats to children’s health. In addition, because of increasing concerns among scientists about exposures to pesticides, we modified our theme of pest control (rodents and cockroaches) to focus on how to control these pests safely. The final list of campaign themes for the Healthy Homes, Healthy Children campaign are listed in Table 1 alongside the strategies researchers initially thought would be relevant to the campaign.

Focus group participants emphasized the need for campaign materials that were easy to read, informative, and vividly illustrated. Reviewing the data led to the development of a series of attractive campaign materials under the heading of “The Truth about . . .” (figure available on the EHP website: http://ehpnet1.niehs.nih.gov/members/2002/suppl-2/265-269green/green-full.html).

The answer came in an accidental photo of a Harlem street (cover photograph for this issue). We were interested in an illustration of a neighborhood scene that showed the cluster of environmental problems. In the figure, it is possible to see a number of environmental problems, such as dilapidated housing, garbage bags on the street, and advertisements for cigarettes. But as we studied the photo, another image gained salience: that of a woman walking away from the camera carrying heavy bags of groceries. Her effort resonated with the efforts described by women in the focus groups. We came to a deeper appreciation of what it takes to be an environmentalist in such dispiriting conditions. A new concept emerged, that of the “Hey, Mom, Thanks!” campaign, which would thank people for all they were doing to better the environment. Young people engaged in neighborhood cleanup, superintendents managing the garbage, mothers taking food home, and fathers serving on block patrols would all be pictured in attractive “Hey Thanks!” posters (available on the EHP website: http://ehpnet1.niehs.nih.gov/members/2002/suppl-2/265-269green/green-full.html).

Discussion

This study engaged urban women of childbearing age in a series of guided discussions designed to elicit information that would inform the development and implementation of a community-specific environmental education campaign. We used qualitative research methods to identify the structural parameters of situations in which low-income women and children are at risk for poor health and illness. The goal was to translate the research strategy into social practice and action. The focus group methodology was chosen based on its utility for both involving participants and uniting researchers with community concerns. The use of qualitative methods to inform social marketing campaigns is well documented (3,4).

According to the women in the study, the problems associated with urban living are complex and often misinterpreted. Few programs address, much less reduce, the powerful social, political, and economic forces that push urban residents into ill health (5). Although our goal was to educate women of childbearing age about environmental health hazards and preventive behaviors, it became increasingly clear that any attempt to improve health in the area must address the multidimensional and complex nature of the environments under study.

Like other urban neighborhoods the three communities presented in this study are known for the excess morbidity and mortality of their residents (6). In the two decades preceding this study, Central Harlem lost more than one-third of its housing stock, and area residents experienced excessive rates of injury, violence, addictive disorders, and AIDS (7). During this same period Washington Heights was known as “Cocaine Central” and suffered greatly from the violence generated by drug trafficking,
while the South Bronx was “hollowed out” by fires that left behind burned out and abandoned buildings (8,9). Epidemics of substance abuse, AIDS, and homelessness added insult to injury for these communities. Families and social groups from all three communities were greatly damaged by the social upheavals of the 1980s and 1990s. According to Wallace, the social controls that permit large numbers of people to live together in densely packed neighborhoods were greatly disrupted, resulting in physically denuded areas with hyperconcentrations of poor people at increased risk of disease (9).

These processes, which are not under the control of average citizens, are reflected in the data reported here. The findings support previous studies showing that the health of residents in Northern Manhattan–South Bronx has been greatly influenced by multiple facets of both the physical and social environment (7–9). The data suggest that the lived experience of community residents is far removed from what “used to be.” The area is no longer a community where neighbors take care of one another, maintain their homes, and rear children collectively. Instead, residents are distressed by community life and feel powerless to overcome its negative forces. This distress is analogous to that experienced by survivors of major physical disasters.

According to Wallace, many survivors of major physical disasters are found by rescue workers to be in a state variously described as “shock,” “dazed,” “stupor,” “apathy,” “stunned,” or “numbed” (10). Wallace labeled such a condition the “disaster syndrome” (10). Individuals displaying the disaster syndrome have seen a part of their community destroyed and a part of their culture rendered or revealed as inadequate (10). The psychosocial response is often a sense of victimization, both in the individual and collective sense (11). Our research supports the application of this term to residents living in Northern Manhattan–South Bronx. It was clear from the focus groups that community members are experiencing varying degrees of shock in the aftermath of widespread community destruction. Similar to that described by Fullilove et al. in a study of Central Harlem residents, participants described moving carefully through a geography of danger (7). Many residents adopt passivity, aggression, or drug use to manage painful emotions, and attempt to gain support from a limited number of interpersonal relationships (7). Consequently, any attempt to improve the health and well-being of area residents must engage members of the community in the collective striving for neighborhood improvement.

With these issues in mind, we followed three guidelines in developing campaign materials. First, at each point of campaign development, we made an effort to become aware of the intricacies of community life in the Northern Manhattan–South Bronx area. Women living in the area clearly articulated their fears and it was our responsibility to respect their insights. For example, although the issue of substance abuse failed to arouse our attention as an environmental health concern, we became acutely aware of its significance and emphasized its importance accordingly. Second, we sought to understand the quality of life issues raised by community residents. Women in the study discussed multiple community stressors and their effect on their children’s health. The women found it difficult to merely discuss poor air quality in their neighborhoods without mentioning the lack of safe and clean places for their children to play out of doors. Last, it was clear that the communities under study have been bombarded with health information and campaigns designed to reduce health risk behaviors. We wanted to do more than increase their knowledge; we understood the importance of supporting their capacity to act. The depth of the data allowed us to clearly see how much women were doing in the community and how burdened they were. The focus groups promoted thought-provoking dialogue and encouraged consensus building among the women, resulting in a process of conversation that shed light on the exact nature of their sense of powerlessness. It became our goal to develop materials that could affirm the community’s intense struggle for survival, even as residents expanded their actions in response to their children’s risk for illness and disease. The “Hey, Mom, Thanks!” campaign was designed to thank people for all they were doing to better the environment and enhanced their capacity to participate in widespread community change.

The data generated by this study forced us to expand narrow concepts of health and environmental risk to include factors outside our original focus for the campaign. In addition, the focus groups inspired researchers to develop a campaign that supported community residents’ capacities to participate in environmental change by affirming the efforts they were making against the odds.

REFERENCES AND NOTES

1. Weiss KB, Wagener DK. Changing patterns of asthma mortality: identifying target populations at high risk. JAMA 264:1682–1687 (1995).
2. Muh T, Atts*n. Berlin:Scientific Development, 1997.
3. Singer M, Stopka T, Siano C, Springer K, Barton G, Khosla K, Gorry de Puga A, Heimer R. The social geography of AIDS and hepatitis risk: qualitative approaches for assessing local differences in sterile-syringe access among injection drug users. Am J Public Health 90(7):1049–1056 (2000).
4. Morgan DL. Focus Groups as Qualitative Research. Portland, OR:Sage Publications, 1996.
5. Freudenberg N. Health promotion in the city: a review of current practice and future prospects in the United States. Am Rev Public Health 21:473–503 (2000).
6. Fullilove M. Promoting social cohesion to improve health. J Am Med Women’s Assoc 53(2):72–76 (1998).
7. Fullilove M, Green L, Fullilove R. Building momentum: an ethnographic study of inner-city redevelopment. Am J Public Health 89(6):440–444 (1999).
8. Fullilove M, Heon V, Jimenez W, Parsons C, Green L, Fullilove R. Injury and anomie: effects of violence on an inner-city community. Am J Public Health 88(6):924–927 (1998).
9. Wallace R. A synergism of plagues: ‘planned shrinkage,’ contagious housing destruction and AIDS in the Bronx. Environ Res 47:1–33 (1988).
10. Wallace AFC, Mazey disintegration: the individual’s perception of socio-cultural disorganization. Hum Organ 16:23–27 (1977).
11. Beamish TD. Environmental hazard and institutional betrayal: lay-public perceptions of risk in the San Luis Obispo county oil spill. Org Environ 14(1):5–33 (2001).