

ARTICLES

THE MEDIA IN DISASTER THREAT SITUATIONS: SOME POSSIBLE RELATIONSHIPS BETWEEN MASS MEDIA REPORTING AND VOLUNTARISM*

Brenda D. Phillips
Maryville College
Maryville, TN 37801

This research looks at possible relationships between mass media reporting and voluntarism in disaster-threat situations. The setting is a small mid-western city in the United States which was inundated by flood waters in March 1982. Data were collected through interviews with volunteers, organizational and public officials, and the media. Additionally, numerous documents pertaining to the media and volunteers are content analyzed. Observations made on-site supplement the interviews and documents.

The media are found to have some effect in accordance with the suggestions of dependency theory. The media are also found to have been one of several instigators of increased voluntarism. Conflict arising out of media depiction of the volunteer effort is discussed. Further research on media effects of voluntarism in disaster situations is suggested.

INTRODUCTION

Crises, whether civil disorder, natural, or technological disasters, rise to the top of news selected for presentation (Weller 1970; Gans 1979). The role of the volunteer in a disaster-threat situation is typically presented through the mass media as a human interest story. Recruitment of volunteers is often seen by officials as essential to disaster

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particular aspect of the mass media. Further, the manner in which volunteers are depicted is even less commonly seen in academic study, prevention and recovery efforts, but little research has been done on this if at all. The purpose of this article is to examine some possible relationships between mass media reporting and volunteering in disasters. This is an exploratory study that suggests lines of inquiry for further research. As such, this article makes use of a case study to generate hypotheses as in the tradition of Glaser and Strauss (1967) and McCarthy and Zald (1973; 1977).

LITERATURE REVIEW

Literature on disasters and the mass media, while it does exist, suffers from an absence of systematic knowledge or theoretical frameworks (Quarantelli 1980). Most studies look at the external impact of the mass media rather than internal dynamics of the mass communication system in disasters, although this aspect seems an essential focus to cover. Studies which do begin to study internal media interactions such as the social construction of the news (Tuchman 1978; Gans 1979) do not directly address disaster situations. When studies do look at disasters, it is generally a critical view of media unpreparedness (Volkman 1980), press and public relations and distorted information (Larson 1980; Quarantelli 1981).

Larson (1980, p. 75) defines disaster information as "all forms of information that affect public understanding of, attitudes toward, preparations for, and responses to disaster." Disaster information, as seen in the mass media, tends to be concentrated on the impact period. Mitigation and advance warnings of imminent disaster are generally not selected as top news stories (Turner 1980; Kreps 1980; Jensen 1972; Smith 1981). Furthermore, details of actual disasters are inaccurate and often misleading. For example, reports of looting and numbers of deaths are often far from the actual events (Dynes and Quarantelli 1968; Taylor 1977). Catastrophic damage caused by a disaster is usually the main story content, rather than more specific items such as any economic problems created by the situation (Scanlon 1979). Such incorrect images of disaster behavior are ultimately translated into beliefs (Wenger et al. 1975).

Additional research has looked at the media during mass emergencies. Media systems also have their share of problems caused by the disaster, as well as being causes of further problems such as social control (Harless and Rarick 1974; Quarantelli 1971). To a journalist, such a situation might be equivalent to the proverbial "between a rock and a hard place." For the sociological researcher, unfortunately, this does not bring us any closer to an understanding of our research problem.

What we will study is the volunteer in disaster-threat situations and what role the media plays in recruitment and portrayal of this particular task-oriented group. Hypotheses are presented for further research into media effects on volunteering in disasters. The media effects literature shows there is a tripartite relationship between the larger society, mass media and the audience which is complex. In general, media effects research suggests that while media do have an impact on the audience, they are also a product of the larger society. In essence, media do not have "arbitrary" control over their audience (DeFleur and Ball-Rokeach 1982). Dependency theory (DeFleur and Ball-Rokeach 1982) postulates that people rely on media when their own informal channels are disrupted; this is especially true in disaster situations. Two aspects of dependency theory useful here focus on cognitive and behavioral effects of mass media. Cognitively, media can produce a change in attitudes, beliefs, and values, although we are cautioned that media are not monolithic in their effect. Behaviorally, we are interested in activation --that the audience would do something they normally would not have done. In the situation to be described here, we will examine the possible effects of mass media in disasters on cognition and especially behavior.

Most volunteers in disasters are recruited largely from the impacted population at the time of impact, yet literature most often addresses voluntarism when convergence is an issue (Meserve 1980). Most common in sociological research are instances where convergence is a problem the impacted community must deal with (Fritz and Mathewson 1957). We will not assess motivations such as altruism and egoism (Wolensky 1979) for voluntarism or other social psychological processes. Rather, we will examine the observable interplay between the media, the local community, the recruitment process of volunteers, the depiction of volunteers by the media, and perceptions of altruism.

Dynes (1974) developed a useful typology for examining the role of volunteers in disasters, although not from a mass media perspective. These volunteers are associated with expanding organizations, or those entities characterized by a small core of permanent personnel such as the Red Cross or Salvation Army. Additional personnel (volunteers) are recruited and mobilized through this core. What makes this research unique is the incorporation into the typology of individuals with little or no disaster experience.

Figure 1. Typology of Disaster Volunteers*

		Training	
		Yes	No
Previous organizational experience	Yes	Regular	Regular
	No	Emergency	Emergency

*Adapted from Dynes 1974, p. 158.

We are concerned primarily with the emergency untrained volunteer (EUVs) or "walk-in" since this is where most media coverage exists. This volunteer has had no emergency training or previous organizational connection and may not even realize he/she is now a quasi-organizational volunteer. In reality, the distinctions between organizational connection or no association at all may be blurred at best.

Dyne's typology, however, still serves to identify the dimensions of volunteer backgrounds prior to their disaster experience. In the disaster-threat situation described here volunteers were important resources, essential to success in alleviating the full force of the disaster's potential. Their story was covered to a large extent by the local and national mass media; one local newspaper later won a Pulitzer Prize for their coverage.

METHODOLOGY

The data used in this paper were taken from a case study of a mid-western town inundated by flood waters in March, 1982. Interviews were conducted with over thirty individuals including volunteers, neighbor-

hood leaders, public officials, emergency personnel, and the media. Documents relevant to the study were obtained and analyzed, including weather bulletins, media coverage, interorganizational materials, press releases, private notes, recordings, community data, disaster plans, and so on.

A content analysis of one local newspaper's articles and photographs will be discussed. The sample for this content analysis includes a souvenir edition of flood stories and photographs, special sections of the paper two- and eight-months post-flood, and all relevant flood articles/photos in the March 1983 papers. These issues were selected due to availability and appropriateness. The sample is not large enough to make generalizations across populations, but does serve as an indication of local media's treatment of the disaster and volunteer effort. A comparison of the content analysis of newspaper articles and photographs with demographics and interviews will enable us to assess how accurately the media were in their depiction.

As previous research suggests, the media often reflect the status quo (Gans 1979). Therefore, careful analysis should be done, where possible, on the demographic variables of the impacted community. Minority members in this case are likely to be underrepresented. Sex and age are also examined.

This exploratory analysis will point out directions for future research. The major analysis here is within the stories and photos we examine, rather than a comparison to other stories and photos. We will be looking for both the manifest and latent content in these units of analysis. Preestablished coding categories included, when possible, sex, race, age, organizational affiliation, and identification of the volunteer (for example, elderly, student, unemployed, etc.).

Observations from television and radio, including interviews, tape recordings, and video tapes are used where appropriate in our analysis. Primarily, they are used to look at our findings vis-a-vis the perceptions of local officials and emergency organization personnel. Additionally, in-depth interviews made during the field research are added where relevant. We begin our analysis with a discussion of the characteristics of the impacted community, followed by a description of the activities of the emergency untrained volunteers, and, finally, a discussion of the mass media's role in recruitment and depiction.

CHARACTERISTICS OF THE IMPACTED COMMUNITY

Anytown is located in a midwestern state at the confluence of two major rivers which join to form a third. Between March 12-19, 1982, all three rivers went above their respective flood stages due to a combination of sudden snowmelt and heavy rain. With this flood, impact was relatively slow in coming and non-life threatening. Flooding has been a continual hazard in Anytown, although this flood was the most serious since 1913. Several neighborhood areas, primarily the lower income ones, flood nearly every year to various extents. After the 1913 flood, the city built dikes, along with other flood prevention measures. These dikes were largely effective until 1982 when they were partially destroyed by the major flood discussed here. This 1982 threat resulted in the city's second federal disaster declaration for a flood. The first federal declaration for a flood was in 1959.

The concept of a disaster subculture has been noted in numerous studies (see below). Certainly the potential for a disaster subculture exists in this town. According to the definition, such a subculture is a set of cultural defenses developed to cope with recurrent dangers (Moore 1964; Quarantelli et al. 1983). It also includes norms, values, beliefs, knowledge, and technology. As such, it often "serves as a blueprint for resident's behavior before, during, and after impact" (Wenger 1977, p. 41; see also Anderson 1965; Osborn 1970; Weller and Wenger 1973; Hannigan and Kueneman 1978). Anytown is divided into over one hundred neighborhood associations, some of which are highly organized and active, including participation in flood mitigation efforts and disaster preparedness. Some of these associations were usefully employed in sandbagging, food preparation, temporary shelters, etc., during the 1982 flood.

More generally, Anytown is in the heart of the industrial/agricultural mix of the midwest. Surrounding areas range from rolling farmland to hilly regions to level land. Scattered lakes are drained by the rivers. The city's 1980 population was 172,349 with 17.7 percent minority residents (14.4 % Black, 2.2 % Hispanic). Unemployment at flood time was 12.8 percent locally compared to 12.9 percent statewide, and 9.5 percent nationally. Many unemployed community residents were singled out as a significant percentage of non-student volunteers.

ANALYSIS

The March 1982 flood occurred at a time when the city was not totally prepared for such an event. Further, the extent of the flood and subsequent dike damage went beyond the normal, planned means of public officials. This city was prepared for some flooding and had plans to use groups of trained volunteers in such a situation. The flood occurred, however, before much training had been completed. Most importantly, few anticipated the large scope of the eventual flood situation.

Approximately 30,000 volunteers, including about 18,000 students, responded to the call and effectively turned back floodwaters to save many homes and often large sections of neighborhoods. By any standards, this implies that a massive collective behavior incident was taking place. Some estimates range up to 60,000 volunteers with one-half being students. Most interviewees suggested the 30,000:18,000 ratio of total to student volunteers as correct. Records of individual volunteers exist (release forms) but were too voluminous and unorganized to be used. These were the emergency untrained volunteers (EUVs) Dynes described in his typology (Dynes 1974).

There had been some planning for this sandbagging to take place, but not to the extent which occurred, and not for this type of an emergency. A practice sandbagging session had been organized for Saturday, March 13. High school volunteers, recruited by the city, were expected to show up at the Street Department on that day to learn how to fill sandbags. It was also the warmest day of the year, 70 degrees and sunny, and few volunteers showed up. By coincidence, this was the day floodwaters rose and the Mayor opened the Emergency Operations Center. Calls were extended from local government through the media for volunteer help. Large numbers of volunteers did not show up, however, until Sunday night. Two local social scientists who volunteered at the Street Department early Sunday found the sandbagging operation unorganized and understaffed with volunteers.

Late Sunday, the media and area citizens began to perceive the seriousness of the situation. The city was declared a disaster area by the governor and the National Guard arrived to patrol the weakening dikes. The sandbagging effort was moved to the city coliseum to accommodate a rapidly increasing number of volunteers.

A number of factors encouraged the growth of a large volunteer effort. First, on Sunday night, television crews put extra reporters on the flood story and one station carried a special news edition. Many interviewees credited the media with "getting the word out" to volunteers. Media attention apparently increased public awareness and perception of the extent of the potential for disaster. Television and radio gave information and legitimacy to the emergency. Newspaper coverage initially depicted flooded areas and evacuees. Warnings were finally heeded and volunteer effort increased from this point on. Second, national media attention focused on Anytown by Monday and a Presidential visit on Tuesday--where he sandbagged a weakening dike himself--were additional verbal and visual cues to encourage volunteer turnout. Third, and also on Tuesday, schools and businesses closed, increasing the pool of available volunteers. High school student leaders made radio and television appeals for help.

Initial warnings are generally not heeded by the population at large (Mileti et al. 1975). This was indeed the case in Anytown. The media were crucial to alerting the population of the impending disaster by giving focus to official concerns that prompted a citizen response. We anticipate this will occur in the future. The role of the media in actual recruitment show that:

1. Volunteer response rises as media accounts of disaster threats increase.
 - 1a. The greater the number of accounts, the higher will be the needed volunteer response.
 - 1b. The greater the space allotted to disaster threats (whether newspaper inches, airtime, etc.), the better the volunteer response.
 - 1c. The greater the space allotted to the story the larger will be the volunteer turnout.

This is not to say the media directly produced the volunteer turnout. At best, we can only suggest an indirect link between media involvement and volunteer turnout. The visual and verbal impact may, however, have been critical in defining the situation and lending legitimacy to the volunteer behavior.

Mobilization of volunteers was organized out of the city coliseum. Two city employees from the mayor's staff coordinated coliseum volun-

teers. The effort was so massive that traffic and parking volunteers were used to direct those arriving or departing. Further specialization in the volunteer division of labor developed. Once entering the coliseum, Red Cross volunteers registered volunteers who signed release forms. Different areas were used for training people on how to fill sandbags, load them on trucks, pass them along lines, and place them properly.

By Wednesday, March 17, ten thousand residents had been evacuated and a massive effort to save a dike "the consistency of toothpaste" was underway. One thousand emergency untrained volunteers remained on the dike every hour despite what appeared to be imminent danger and an order to evacuate the area. They were ultimately successful in securing the dike. The new sandbag dike was twelve feet high, thirty feet across, and five blocks long. Over thirty thousand bags were filled and placed by hand to prevent the original dam from collapsing. Approximately one third (10,000) of all the EUVs worked on this dike-rebuilding project alone. Subsequent volunteer effort after the rivers subsided on Thursday and Friday centered on city-coordinated efforts to clean homes. Figure 2 provides a summary of the event sequence.

Figure 2: Social Chronology of the Event

Friday, March 12	National Weather Service issues flood warnings. Mayor meets with top EOC staff. Pumps started in some neighborhoods; Street Department begins filling sandbags.
Saturday, March 13	Mayor opens EOC at 8 a.m. First media call for volunteers; record-setting warming trend.
Sunday, March 14	City and surrounding areas declared state disaster sites. National Guard begins to patrol dikes. Sand-bagging moved to city coliseum when volunteers begin to respond. Local media attention increases perceptibly.
Monday, March 15	National media attention begins. Dikes weaken further, volunteers increase. Sandbagging of dikes begins.

-more fig. 2-

Figure 2 (cont.)

Tuesday, March 16	Schools and businesses close. Volunteers continue to increase. President arrives.
Wednesday, March 17	Massive volunteer effort nears peak. Ten thousand volunteers on dikes every hour. One thousand residents evacuated.
Thursday, March 18	New sandbag dam completed. Rivers crest.
Friday through Monday March 12 - 22	Rivers drop, evacuees return home.

Media Roles: Defining the Situation and Legitimizing Behavior

Mass media in Anytown were viewed by local officials as crucial to the volunteer effort. Publicly released information from the mayor's office was relayed through media representatives in an effort to recruit volunteers. In other words, government officials saw the media as an information conduit. They were indeed this and possibly much more. Disaster officials set up hourly press conferences to encourage volunteer turnout. Interviews with pertinent officials indicate that good rapport existed between city personnel and the media at this time, which had not been true recently. A police strike was in progress the week before the flood and media-administration relations were antagonistic. This conflict stopped during the flood but resumed immediately after. Conflict resumed post-disaster, as other research would predict (Quarantelli and Dynes 1976).

Radio was subsequently viewed by local officials as the most capable medium of on-air messages, including calls for volunteers. Newspapers were used for more specific needs such as listing resources for flood victims. Television was useful for "trailers," the printed messages which flow across the bottom of the screen. Within the media, general impressions were that the local newspapers (one later received a Pulitzer Prize for their flood coverage) gave the best overall coverage, followed by television, and then radio. Television station broadcast problems were

created by lack of internal organization according to some media respondents. Radio was handicapped by a lack of mobility and visual imagery.

The media in Anytown were credited with successful recruitment of volunteers needed to mitigate the flood hazard. Media were used as the vehicle for information and coordination to the general population. Earlier attempts to organize groups of high school students failed, ironically, at the same time they were so urgently needed. Therefore, the following hypotheses are indicated for possible future research:

2. Volunteer response will increase when media is utilized as a means of communicating to the general public.
 - 2a. The more the media are used the higher the volunteer response.
 - 2b. The higher the visual imagery, the greater the public response.

Pre-disaster networking and recruitment had not been effective. Word of mouth communication in this type of disaster was also not sufficient to raise volunteers. Interviews indicated that many people, including media representatives, were not aware of the problem until Sunday night. Earliest coverage, for example, began Saturday morning for the newspaper when a staff photographer's home was flooded. Media accounts provided legitimacy to official calls for volunteers. Intermedia coordination was not essential to effective mobilization and recruitment.

Mass media play a significant role in linking the population at large into a network. They provide information, organization, and feedback on population response. Further, the volunteer effort then becomes a media story; the media has socially constructed their own copy. The media has a vested interest in doing this. First, depiction of such topics guarantees audience viewing or purchasing.

3. As the situation becomes increasingly defined as altruistic, the higher will be the media coverage (newsworthiness).

A shift then occurs in media roles from indirect recruitment to direct portrayal. The media role has become one of depiction.

Conflict and Selective Depiction

A content analysis of newspaper coverage on the volunteer effort reveals a strong emphasis on the student/non-student volunteer ratio.

Students were held up as exemplary and characteristic of the volunteer spirit. This eventually created some animosity among volunteers from other groups. Content analysis of the March 1982 photographs shows that approximately 57 percent of the EUVs portrayed were identified as student volunteers (total N=37). Considering the estimated 18,000:30,000 student to non-student ratio, this photo coverage is close to actual volunteer involvement. Written stories (N=11), however, show that 77 percent of these articles discussed student voluntarism. The media here seem to be focusing on altruistic behavior from an unexpected source. This exceptional behavior is covered as being newsworthy.

Both photos and articles depict the EUV nearly 100 percent of the time. This may be due to the large number of these types of volunteers as compared to those with previous organizational experience. If so, then this seeming distortion may, in fact, be accurate. Only one or two Red Cross and Salvation Army photos were printed. Other organizations were not depicted in photos or in articles.

The issues printed two- and eight-months post-disaster show articles and photos representing both students and other groups including organizations. This portrayal seems accurate since other research has found that there is a greater likelihood that organizations will increase in importance during post-flood periods whereas family and friends are of greater importance during impact of the event. Initial volunteer help will have subsided while organizations continue to respond.

One year after this disaster, the entire month of March was surveyed for newspaper articles/photos of volunteers. These were always reminiscent of the flood anniversary. Students composed nearly all of the volunteers discussed in articles and seen in photos. For example, one photo essay followed up on seven high school students and the leadership qualities they possessed. All seven planned to continue on to college. What we see here is more of a selective media representation of the volunteer effort one year later. Some idealization of the volunteers has occurred, possibly reinforcing feelings of neglect among other volunteers (also probably deepened by a free concert given for the students).

Very few photos reflected the racial makeup of the community. White residents were the majority of the volunteer images with the com-

posite result being a homogeneous, selective representation. What makes this finding even more interesting is that 17.7 percent of the community is composed of minority races. Minority members are more likely to be unemployed than are white citizens. Theoretically, then, minority members with a higher unemployment rate are more likely to have the time to volunteer in such a disaster-threat situation. Interviews provided evidence that minority members did volunteer; however, the actual percentage is not known. Additionally, the unemployed were consistently singled out as contributing to the volunteer effort. Selective use of sources (images here) reflects values representative of a minority, often the status quo (Gans 1979). It is significant here to recall that the newspaper is considered to be an indicator of the community (Hannigan and Wigert 1973). There was little or no concern made over this possible distortion. Conflict occurred only over the student effort depiction.

In constructing the news story on the disaster-threat situation, key points will be identified as foci for the media. These angles will serve as not only initial coverage but as points of reference for later stories (two, eight, or twelve months after). People are chosen to represent population segments. Media use them as foci, and also as tools to further serve the community interest. For example, in Anytown, selected representatives (in this case, high school leaders) aided in issuing calls for volunteers over the radio. Such leaders later served as role models taken from the volunteers. The students represented one year after the flood were all going on to college. A link was forged between their efforts in the flood and their success in life. Several hypotheses can then be developed on the angles of media coverage:

4. The more frequent the depiction of one particular group in the disaster, the more likely will resentment occur in the community among other volunteer groups.
 - 4a. The stronger the media depiction of one particular group, the more obligated will be the officials to reward that group.
 - 4b. The more one group is rewarded, the more resentment will be experienced.
 - 4c. The longer the focal group is rewarded, the higher the degree of conflict.

The media, as powerful agents of socialization, can reinforce preexisting feelings of resentment even though this may be unintentional.

Conflict here was referred to by respondents as "hard feelings" within the community. These emotions were expressed to me in numerous interviews. The media and officials were cognizant of this feeling and expressed concern about the conflict. Furthermore, media angles focus on the difficulties volunteers experience. This serves to further legitimize the story and provoke empathic feeling among viewers/subscribers. One example of this was the story of exhausted students who stayed on the dikes for hours and refused to leave. The stories, of course, were true and exemplary but tended to mitigate the experiences of non-students who worked just as hard or even harder.

Resentment over perceived neglect rose among the non-student volunteers. The strength of the link between media depiction and community conflict is indeed unclear. What is clear is that there was resentment and media were involved to some extent in reinforcing this feeling.

In general, the emergency untrained volunteer is the focus of the media during impact. Organizations are the focus post-impact. Volunteers serve as examples of the increase experienced in community spirit during a disaster. They are symbols of the community pulling together during a severe threat to their well-being. Emergency untrained volunteers are depicted as the most altruistic. The focus on the youth of Anytown and their efforts served as the epitome of the altruistic, untrained, emergency volunteer. Additionally, the unemployed served as a group which exemplified this spirit. It should be no surprise, then, that these two groups are consistently singled out for giving to the community. Altruism is a highly valued character trait in the United States (Quarantelli and Dynes 1977). The unemployed, who needed so much themselves, gave more than was expected. Likewise, the students, not yet fully participating in the community, gave beyond what was expected. Television and newspapers, especially, are visual and verbal vehicles of the state of the community. They not only have an economic investment in reporting stories which sell, but also receive rewards for promoting such altruistic incidents:

5. The higher the level of perceived altruism, the more likely the media coverage.

The students obviously reflected high levels of altruism, giving more than they received. The government and media attempted to restore equity through rewarding altruism. This inadvertently raised the inequity and distress of other volunteer groups. The media were taken as reflectors of the community by the distressed groups who felt their altruism toward their community was virtually ignored.

Selective Media Use and Volunteer Recruitment

Finally, different types of the media are most effective in different areas. For example, the visual impact of televised media may be more conducive to developing immediate, positive images of the volunteers. Newspapers can also serve this function, especially when they provide a medium which can be retained for future reference and remembrance. Newspapers are least effective in serving as communication links for recruiting volunteers. Newspapers are hampered by reporting what has happened rather than what is happening. Radio is the most effective communication link for recruiting volunteers due to the possibility of repeated messages and announcements. Radio is also the most readily accessible to the general population. Radio is found more readily in cars, homes, and offices whereas televisions are not and newspapers are slower with news output. Visual impact seems to develop and encourage altruistic behavior.

6. The more the media visually legitimizes the story, the more likely the volunteer turnout.

SUMMARY AND IMPLICATIONS FOR FUTURE RESEARCH

Media roles in disaster-threat situations have generally been the focus of criticism. Media often distort and misrepresent the facts, although at least one researcher has recently cautioned us against blaming the media alone (Goltz 1984). This study takes a unique angle in looking at multiple media roles in recruitment and portrayal of volunteers. Obviously, the media here were highly useful in producing a massive volunteer effort. In doing so, they played a dynamic role in creating their own story.

Overall, newspaper coverage seems fairly accurate on some depiction and not so accurate on others. For example, student effort seems correctly portrayed during impact. One year later, the representation was not as accurate. Hard feelings had surfaced among other volunteers over this. The nostalgia raised over the student volunteer effort was offensive to others.

Minority volunteer effort was not on target. Structural conditions were right for high volunteer effort, but this was not shown in the media. We do not have any good way to assess social class depiction. It is likely that the lower social classes were represented in the volunteer effort due to the unemployment situation. The higher social class volunteers were most likely involved in emergency organizations. Post-impact organizations were illustrated more than the EUVs. We would expect this to be the case since organizations are more likely to be handling recovery than groups of untrained volunteers.

To conclude, the interplay between volunteers and the mass media has been nearly completely ignored in disaster literature. This study provides a useful way to examine media effects and dependency theory. There was an obvious relationship between the mass media and emergency untrained volunteers in Anytown; the media assisted in producing some cognitive and behavioral effects. We urge further research on media effects, dependency theory, and disaster situations.

This research suggests further areas of inquiry. This case study provides a useful amount of information as well as hypotheses for future researchers. Additional research beyond the single case could prove quite fruitful. The utility of these hypotheses is that they can be tested through both quantitative and qualitative means. Study of media representation of volunteers is one way to study a large, anonymous population. The emergency untrained volunteers here were crucial to the town's survival. Depiction of this group is something everyone can "see" through the media. The social construction of that depiction, and the images sent out, are often accurate, yet also selective. We need to understand this process, especially the role media play in legitimizing altruistic behavior or underscoring altruism as a social norm. In disasters, the "unknowns" can become "knowns." Research on media recruitment and depiction of voluntarism in disaster situations is one way to study the "unknowns."

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