

## FAMILIES IN DISASTER: PATTERNS OF RECOVERY\*

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### INTRODUCTION

On June 8, 1966, a violent tornado struck Topeka, Kansas. The tornado killed 17 persons, injured 550 and left 1600 families homeless; property damage was estimated at 100 million dollars (Taylor et al., 1970). How do victims of such a disaster recover? Who helps victims in such events? What kinds of resources do victim families possess to aid their recovery? Questions like these must be answered if we wish to understand the process of recovery through which victims seek to restore order and stability to their lives.

Literature in the area of altruism has sought to understand the conditions, motivation for, and variations in the emergence of "positive forms of social behavior" (Gouldner, 1960; Wispe, 1972; Midlarsky, 1968). Helping behavior has been viewed as a form or component of altruistic behavior in which there is "giving of assistance or aid toward a definite

object or end" (Wispe, 1972: 4). Disaster events have been viewed as a time when there is a great outpouring of generous, heroic and selfless activity. The emergence of "therapeutic communities" as Fritz (1957; 1961) labelled this phenomenon has been documented widely (e.g., Fritz and Mathewson, 1957; Quarantelli, 1960a; and Dynes, 1970). Barton (1969: 216–279) has proposed numerous hypotheses which specify variations in the speed and extensiveness of these "altruistic communities." Yet we still lack much understanding of variations in help received by victim families. Furthermore, though one source of help in recovery lies in help received from others, victims also possess some degree of internal resources which facilitate this process. Hence recovery after a disaster event can be viewed as mediated both by help from others and victim's own internal resources.

Following the 1966 tornado, the Topeka community rapidly responded in accordance with the prediction that researchers like Fritz (1961), Barton (1969) or Quarantelli and Dynes (1972) might offer. Taylor et al. (1970) have prepared a detailed account of the rise and gradual demise of an emergent "therapeutic community" as individuals throughout Topeka and its environs sought to help the 1600 who were left homeless and the thousands of others who incurred less severe losses.

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In this paper we will focus on a sample of victim families of this disaster and present a description of recovery patterns by examining both help extended to them by external groups and resources possessed by victim families. Upon examining help from external groups, we sought to ascertain which groups gave victims assistance, the kinds of help given to victims and the method in which help was obtained. In contrast to these questions about help from external groups, we also explored the recovery of victims through the utilization of internal family resources such as house insurance, car insurance, savings, etc. Finally, recognizing that some families received more help and possessed and utilized more resources than others, we sought to account for this variation.

## METHODOLOGY

During 1969 and 1970, interviews were conducted with 338 families who suffered losses through the tornado which occurred in Topeka, June 8, 1966. These interviews were conducted within the context of a larger study in which we sought to assess the long-term impact of this event on family functioning (Drabek et al., 1973). These families varied in degree of loss and were classified into two groups: (1) moderate damage, e.g., a few broken windows and debris in the yard and (2) extensive damage, e.g., personal injury or major damage to their house or car [1].

This sample of victims was drawn in accordance with the quasi-experimental design used in the larger study. Reflecting the design requirements of this study in which pre- and post-tornado family functioning was assessed, the victim sample came from four sources: (1) respondents from an Urban Renewal Family Relocation Study conducted through the years 1962–1964 (Key, 1967); (2) interviewees in an Office of Economic Opportunity Study conducted during the years 1965–1966 (Taylor et al., 1966); (3) families residing in the four Topeka census tracts with the lowest socioeconomic ranking which were located in the

path of the tornado [2]; and (4) families residing in the four census tracts with the highest socioeconomic ranking, which were also located in the tornado path. The UR sample, OEO sample and sample drawn from the low income census tracts were combined for analysis purposes and are referred to in the paper as “the low income group” (N = 238). The remainder of the sample (N = 100) will be designated as “the higher income group” [3].

Respondents were interviewed and asked about the impact of the tornado and sources of recovery used by the family [4]. These data served as the basis for our analyses. Following a discussion of help obtained from external groups, we will present an analysis of the internal resources of victim families.

## VARIATIONS IN EXTERNAL HELP SOURCES

Previous disaster research suggests that there are a variety of external groups which give aid to victims. The important role of kin and friends during the recovery period has been documented (Quarantelli, 1960b; Midlarsky, 1968; Hill and Hansen, 1962). Assistance from official agencies, e.g., American Red Cross, the Salvation Army and many ephemeral groups which emerge after most disasters has also been established (Moore, 1958; Barton, 1969; Dynes, 1970). Research also indicates that victims often prefer receiving help from kin, friends and those who appear to be acting on their behalf spontaneously, and may often reject help channelled through bureaucratic agencies. Midlarsky (1968), in interpreting these findings, suggests that the individual in need of help experiences feelings of helplessness and despair and is sensitive to the behavior of those who are in a position to help him. Victims are likely to wonder about the helper’s motives and if reciprocity is expected. If those offering help act freely, then the recipient feels free to express his gratitude in his own way (Midlarsky, 1968: 240).

Our concern in this study was to not only ask victim families about the help they received from kin, friends, the Red Cross and Salvation Army, but also to ascertain whether help was received from other help sources which we thought would be important during this period. Hence we also asked victims if they had received help from religious organizations, governmental agencies, strangers and employers. In asking victim families about the sources from which they received help, our purpose was to ascertain: (1) how many victims received some type of help from an external source; (2) variation in the amount of help received; i.e., did some victims receive help from more sources than others; and (3) whether some sources overall gave help more frequently than other sources.

Our data supports previous research which indicates that the time following a disaster is characterized by an outpouring of help to victims. Most (77%) families indicated that they received assistance from at least one of the help sources listed. Over half (58%) reported that they were aided by two or more external groups. The important role of kin during this time as a source of help is also substantiated by our data. Relatives were the most frequent

source of help reported; over half (54%) of all victim families received help from kin. Friends, religious organizations and the Red Cross were also frequently mentioned (43%, 32%, 33%, respectively, see Table I). The five remaining sources gave help much less frequently.

In ascertaining what could account for these variations, we suspected that there would be a relationship between the amount of help received and the method in which victims received that help; i.e., were they offered help or did they have to ask for it. Our data indicated that nearly all help was offered, not requested. Note the variations presented in Table II. Thus, the impressionist evidence of "the therapeutic community" that has been reported by many (Fritz and Mathewson, 1957; Taylor et al., 1970; Barton, 1969) is supported by these data. By and large, victims do not go out looking for help. Rather they are bombarded with offers from many different types of sources.

Yet, why were some victims offered help while others were not? We felt that the helper's view of the victim in terms of the degree of damage experienced by the victim would be important. If help sources "perceived" certain victims as having extensive amounts of damage then these victims may have received more

TABLE I

Sources of Aid Reported by Victim Families\*

Source of Aid	Families Who Received Help	Families Who Did Not Receive Help
Relatives	54 (181)	46 (157)
Friends	43 (146)	57 (192)
Religious Organizations	32 (108)	68 (230)
Red Cross	33 (113)	67 (225)
Salvation Army	21 (72)	79 (266)
Voluntary Organizations	12 (42)	88 (296)
Governmental Agencies	13 (44)	87 (304)
Strangers	13 (44)	87 (304)
Employer	15 (50)	85 (304)
Total Number Reported	800	2,278

\*Numbers listed are percentages; corresponding N's are included in parentheses.

TABLE II

Frequency of How Help was Received by Victims\*

Help Source	Help Offered	Help Asked For	Joint Decision
Relatives	92 (164)	0 (0)	8 (14)
Friends	95 (127)	2 (3)	2 (3)
Religious Organizations	95 (106)	2 (2)	3 (4)
Red Cross	66 (72)	30 (33)	4 (4)
Salvation Army	78 (56)	19 (14)	3 (2)
Voluntary Organizations	86 (37)	12 (5)	2 (1)
Governmental Agencies	81 (35)	12 (5)	7 (3)
Strangers	100 (41)	0 (0)	0 (0)
Employer	92 (43)	6 (3)	2 (1)
Total Reported	88 (681)	8 (65)	4 (32)

\*Numbers listed are percentages; corresponding N's are included in parentheses.

TABLE III

Frequency of Amount of Help Received by Victims by Degree of Damage Incurred\*

Help Source**	Degree of Damage		X <sup>2</sup>	df	p
	Extensive	Moderate			
Relatives	62 (161)	25 (20)	33.04	1	.001
Friends	52 (135)	14 (11)	36.00	1	.001
Religious Organizations	38 (97)	13 (10)	17.20	1	.001
Red Cross	39 (100)	17 (13)	13.35	1	.001
Salvation Army	23 (60)	15 (12)	2.23	1	N.S.
Voluntary Organizations	13 (33)	10 (8)	0.04	1	N.S.
Governmental Agencies	16 (42)	4 (2)	10.01	1	.01
Strangers	16 (42)	4 (2)	10.01	1	.01
Employer	19 (50)	4 (2)	13.08	1	.001

\*Numbers listed are percentages, corresponding N's are included in parentheses.

\*\*Numbers and percent listed refer to those victims who received help.

offers of help. Our data indicated that when help was received, victims who suffered extensive damage were more likely to have received it than victims who suffered only moderate damage (see Table III). Nearly two-thirds (62%) of the victims who suffered extensive damage received help from relatives, while only one-fourth (25%) of the victims who suffered moderate damage did so. The other help sources reflected a similar trend. Victims who suffered extensive damage are therefore more likely to receive help than those who suffered moderate damage.

Yet many of those who suffered extensive damage did not receive help from particular help sources. Thus other factors, in addition to degree of damage, must be included in any effort at explanation.

Given socioeconomic variations in life styles (Roach, 1967; Roach et al., 1969), intensities of kin involvement (Reiss, 1962; Troll, 1971; Klatzky, 1973), and community participation rates (Dotson, 1951; Greer, 1956; Litwak and Szeleny, 1969), that have been documented in other communities, it appeared likely that variations in disaster assistance received might have followed a similar pattern. For example, we expected that a smaller proportion of high income

families would receive aid from relatives and friends than those with low income. In discussing the relationship between socioeconomic position and helping behavior, Midlarsky points to evidence indicating that altruistic motivation is more likely to be found among the lower classes than among either the middle or upper classes. Middle class individuals are more apt to expect reciprocity for helping while lower classes are more likely to demonstrate modified altruism; that is, they give help in a crisis if they possess a particular skill or expertise (Midlarsky, 1968; 237-238). We also expected that lower income families might retreat from offers made by organizational officials. Thus, we contrasted the high and low income samples controlling on intensity of damage.

Our analysis indicated that among victims who suffered extensive damage, socioeconomic status made little difference for three help sources, i.e., the Salvation Army, voluntary organizations, and employers (see Table IV). However, a higher proportion of families within the high income sample received help from relatives, friends, governmental agencies and strangers. Families within the low income sample more frequently received help from religious organizations and the Red Cross.

TABLE IV

Frequency of Victims who Incurred Extensive Damage and Received Help by Sample\*

Criterion Group	Help Source**								
	Relatives	Friends	Religious Organizations	Red Cross	Salvation Army	Voluntary Organizations	Governmental Agencies	Strangers	Employer
Low Income	58 (98)	44 (74)	42 (72)	44 (75)	24 (41)	8 (14)	11 (19)	11 (18)	16 (17)
Higher Income	70 (63)	69 (61)	28 (25)	28 (25)	21 (19)	21 (19)	26 (23)	27 (24)	25 (23)
X <sup>2</sup>	4.29	14.64	5.07	6.33	0.25	0.03	9.25	11.53	2.97
	d.f. = 1	d.f. = 1	d.f. = 1	d.f. = 1	d.f. = 1	d.f. = 1	d.f. = 1	d.f. = 1	d.f. = 1
	p < .05	p < .001	p < .05	p < .02	p = n.s.	p = n.s.	p < .001	p < .001	p = n.s.

\*Numbers listed are percentages; corresponding N's are included in parentheses.

\*\*Numbers and percent listed refer to those victims who received help.

Interpretation of these findings led us to examine characteristics of Topeka as a community and this particular disaster event which might explain these differences in helping patterns for the low income and high income samples. For example, within the high income sample, many who received assistance from governmental agencies indicated that this help was provided by the National Guard. This organization, they recalled, had protected their homes and property against possible looting. In contrast, respondents within the low income sample rarely mentioned this agency as a help source. Thus, the variation concerning governmental agencies largely appeared to reflect either decisions made regarding placement of National Guard personnel following the event or variations in recall and awareness by persons within these two income categories. Likewise, it appeared likely that "strangers" might have been selective in terms of the "areas" in which they would venture to offer help. Note the higher percentage reported by families within the high income group. Relatives and friends of higher income victims perhaps gave help more frequently because they had more resources (e.g., an extra bedroom, extra food and clothing). In addition most of our victim families had been long-term residents of the city. For example, eighty-four percent had lived in Topeka at least since 1960. Such long-term residency was less

true among families in our high income samples – over one-fourth (28%) had lived elsewhere in the ten years prior to the past tornado interview in contrast to the low income sample wherein only 8% had lived in some other city during the same time period. However, the overall residential stability of the high income sample together with the probability of greater resources of friends and relatives of this group can perhaps account for more help being given to them than the lower income sample. The variation in aid received from religious organizations was in large part due to the emergence of a major ephemeral organization that was established in a church located near to the homes of many low income victims. Hence the ecological location of this one transitory organization of disaster-relief workers appeared to be important in determining whether or not help was received from this source. Finally, low income families may have been more likely to accept offers of help from the Red Cross because kin and friends were not offering help.

In brief, socioeconomic status did make a difference in the pattern of assistance received, although not in the directions that we expected. Greater proportions of victims with higher incomes were assisted by relatives, friends, strangers and members of governmental agencies. In contrast, lower income families

TABLE V

Frequency of Low Income Victims who Received Help by Race\*

Race	Help Source								
	Relatives	Friends	Religious Organizations	Red Cross	Salvation Army	Voluntary Organizations	Governmental Agencies	Strangers	Employer
Whites	55 (74)	40 (54)	33 (44)	26 (35)	16 (22)	7 (10)	9 (12)	9 (12)	10 (13)
Non-Whites	39 (41)	28 (29)	36 (37)	50 (52)	30 (31)	12 (12)	9 (9)	7 (7)	14 (15)
X <sup>2</sup>	5.53 d.f. = 1 <i>p</i> < .02	3.97 d.f. = 1 <i>p</i> < .05	0.19 d.f. = 1 <i>p</i> = n.s.	14.40 d.f. = 1 <i>p</i> < .001	6.06 d.f. = 1 <i>p</i> < .02	1.16 d.f. = 1 <i>p</i> = n.s.	0.01 d.f. = 1 <i>p</i> = n.s.	0.04 d.f. = 1 <i>p</i> = n.s.	1.26 d.f. = 1 <i>p</i> = n.s.

\*Figures listed are percentages of low income victims who did receive help, by race – corresponding N's are included in parentheses.

more often were aided by Red Cross workers, and persons they associated with religious organizations.

A further concern of our analysis centered about ascertaining variations in recovery patterns by race. Would whites be more likely to receive more help than non-whites? Would certain help sources be more likely to offer help to whites than non-whites? While our higher income sample was exclusively composed of white respondents, forty-four percent of our low income sample (N = 104) were non-whites. Analysis of this sample of respondents revealed several important patterns of racial variation in help received from external sources. No significant differences were found in the help obtained by whites and non-whites from religious organizations, voluntary organizations, governmental agencies, strangers and employers (see Table V). However, whites received significantly more help than non-whites from relatives and friends. Non-whites received more help from religious organizations and the Red Cross. Research in the area of "wealth accumulation" of whites and non-whites reports that across all class levels non-whites possess significantly fewer resources than whites (Terrel, 1971). Hence, friends and relatives of non-white low income victims may have offered help less frequently because they did not have the resources

that victims needed. Therefore, non-whites may have been more likely to accept offers of help from other agencies, e.g., the Red Cross and religious organizations.

Analysis of help received among differing age groups also revealed several patterns of variation within both the low and higher income samples. Within the low income sample, older persons were more likely to receive less help from religious organizations, the Red Cross, and as would be expected, employers. Older persons in the higher income sample were also less likely to receive help from the Red Cross and employers. However, they also received significantly less help from relatives, friends, the Salvation Army, governmental agencies, strangers and voluntary organizations (see Table VI). Hence the emergent picture is that older victims with higher incomes generally received less help from external sources.

#### What Kinds of Help were Received from External Sources?

What kinds of help did victims receive? Did the type of help vary among different help sources? Certainly we would expect that victims would receive different kinds of help from close kin than they would from strangers. Data presented in Table VIII permitted pursuit

TABLE VI

Frequency of Low Income Victims who Received Help by Age\*

Age	Help Source								
	Relatives	Friends	Religious Organizations	Red Cross	Salvation Army	Voluntary Organizations	Governmental Agencies	Strangers	Employer
39 or below	58 (34)	43 (25)	48 (28)	48 (28)	24 (14)	7 (4)	9 (5)	9 (5)	21 (12)
40-59	36 (36)	27 (24)	33 (30)	41 (37)	27 (24)	10 (9)	10 (9)	10 (9)	12 (11)
60 and above	49 (44)	34 (31)	27 (24)	24 (22)	17 (15)	7 (6)	8 (7)	5 (5)	7 (6)
X <sup>2</sup>	4.96 d.f. = 2 p = n.s.	4.32 d.f. = 2 p = n.s.	7.37 d.f. = 2 p < .05	9.93 d.f. = 2 p < .01	2.75 d.f. = 2 p = n.s.	0.64 d.f. = 2 p = n.s.	0.03 d.f. = 2 p = n.s.	1.25 d.f. = 2 p = n.s.	6.48 d.f. = 2 p < .05

\*Figures listed are percentages of low income victims who received help by age of respondent; corresponding N's are included in parentheses.

TABLE VII

Frequency of Higher Income Victims who Received Help by Age\*

Age	Help Source								
	Relatives	Friends	Religious Organizations	Red Cross	Salvation Army	Voluntary Organizations	Governmental Agencies	Strangers	Employer
39 or below	76 (25)	85 (28)	28 (9)	39 (13)	24 (8)	15 (5)	30 (10)	39 (13)	33 (11)
40-59	68 (21)	65 (20)	26 (8)	32 (10)	23 (7)	32 (11)	32 (11)	26 (8)	26 (8)
60 and above	55 (20)	42 (15)	28 (10)	8 (3)	11 (4)	11 (4)	6 (2)	11 (4)	8 (3)
X <sup>2</sup>	3.19 d.f. = 2 p = n.s.	13.82 d.f. = 2 p < .001	0.04 d.f. = 2 p = n.s.	9.55 d.f. = 2 p < .01	6.91 d.f. = 2 p < .05	9.91 d.f. = 2 p < .01	7.36 d.f. = 2 p < .05	6.65 d.f. = 2 p < .05	7.65 d.f. = 2 p < .05

\*Numbers listed are percentages of high income victims who received help by age of respondent; corresponding N's are included in parentheses.

of these types of questions.

The type of help reported most frequently was, not surprisingly, the rendering of personal services. A close second was receipt of food and clothing. Both of these types of actions would be expected after such events. However, we were surprised that loans of money ranked third. Thus, at least one-fourth (26%) of these families borrowed money from one of the help sources listed. Providing shelter and items for the house were mentioned frequently, as would

be anticipated. Other kinds of help were given, but much less frequently, as detailed in Table VIII.

Also, as is evident upon inspection of the table, the type of help offered varied greatly among the different help sources. For example, families who received help from relatives were given "major" kinds of help. Relatives most frequently provided: (1) shelter, (2) food and clothing, or (3) rendered personal services. Friends offered similar types of aid, with one

TABLE VIII

Kinds of Help Received by Victims by Specific Source of Help\*

Source of Help	Transportation	Shelter	Food and clothing	Loaned money	Facilities	Personal services	Emotional support	Items for the house	Total
Relatives	40 (4)	671 (76)	11 (45)	9 (12)	23 (3)	32 (126)	27 (6)	8 (6)	24 (278)
Friends	20 (2)	20 (23)	13 (53)	11 (14)	15 (2)	26 (104)	27 (6)	10 (8)	18 (212)
Religious Organizations	10 (1)	2 (2)	18 (70)	21 (27)	8 (1)	11 (42)	0 (0)	14 (11)	13 (154)
Red Cross	0 (0)	2 (2)	23 (92)	27 (36)	31 (4)	4 (17)	5 (1)	39 (30)	16 (182)
Salvation Army	0 (0)	2 (2)	22 (85)	0 (0)	0 (0)	2 (6)	0 (0)	8 (6)	09 (99)
Voluntary Organizations	0 (0)	0 (0)	6 (23)	3 (4)	0 (0)	5 (21)	0 (0)	3 (2)	04 (50)
Governmental Agencies	0 (0)	3 (4)	3 (11)	4 (5)	8 (1)	7 (28)	0 (0)	1 (1)	04 (50)
Strangers	10 (1)	3 (4)	2 (6)	0 (0)	0 (0)	8 (32)	36 (8)	3 (2)	05 (53)
Employer	20 (2)	1 (1)	2 (10)	25 (33)	15 (2)	5 (18)	5 (1)	14 (11)	07 (78)
Total	01 (10)	10 (114)	34 (395)	11 (131)	01 (13)	34 (394)	02 (22)	07 (77)	

\*Maximum possible number of mentions by each respondent is four; numbers listed are percentages; corresponding N's are included in parentheses.

important exception – they far less frequently provided shelter than did kin.

A similar pattern was found concerning kinds of help received from religious organizations. Again food and clothing and personal services were the most frequently mentioned kinds of help. But more victims reported that they received loans of money from this source (21%) than from either relatives or friends (9% and 11% respectively). Employers also provided a large proportion (25%) of the loans reported.

We expected that a somewhat different pattern would be reflected in help received from the Red Cross and the Salvation Army since they both are bureaucratic organizations with long traditions of disaster involvement. Furthermore, Taylor et al. (1970) noted that these bureaucratic organizations played a different role in this disaster situation. “. . . the ephemeral institutions were the major vehicle for im-

mediate emergency help . . . it was only after the unique and short-term emergency was met that the bureaucratic organization could function and show its strength” (Taylor et al., 1970: 127).

Our data indicated that from both the Red Cross and the Salvation Army food and clothing were the most frequent kind of help received. But the Red Cross also reportedly loaned money to victims (28%) and provided items for the house (39%), whereas neither of these activities were reported with much frequency for the Salvation Army. Hence, while both organizations provided similar kinds of help (food and clothing), the Red Cross played a greater role in recovery through issuing financial grants and household items.

The remaining help sources provided similar kinds of help. Thus, voluntary organizations and governmental agencies most frequently



gave victims food and clothing and rendered personal services. Strangers and employers were more likely to render personal services when help was given, but as noted above, employers also loaned money to victims.

In light of the variety of help provided by these help sources, we were interested in ascertaining if victim families were satisfied with the help which was offered to them. We indirectly tapped this dimension by asking victims if they encountered any problems in receiving help from any of these external groups and would they turn to these help sources again if a similar event occurred.

Very few victims indicated that they encountered any problems in receiving help. Among all victims who received help from any of the nine sources listed (N = 800) there were only eight instances listed of any difficulties. Furthermore, victims overwhelmingly indicated they would turn to the same sources again if a similar event occurred. Only four percent of the victims who received help indicated they would not do so. This pattern was reflected for all nine sources of help. We concluded that these data clearly indicated that victims were satisfied with the help they received from these varied external groups.

#### VARIATIONS IN INTERNAL RESOURCES

While external groups primarily aided victims immediately after the tornado, the kinds and amounts of internal resources controlled by victims constrained and patterned their long-term recovery, especially for those who suffered extensive damage. For victims whose house, car and personal belongings were destroyed, car insurance, house insurance, credit rating, savings, etc., are critical factors in aiding their recovery. We therefore examined the types of resources possessed by victim families and variations in these resources by socioeconomic position, race and age.

The interview schedule contained several questions about various family resources that

TABLE IX

Variations in Internal Resources by Sample\*

Type of Internal Resource	Low Income	High Income	X <sup>2</sup>
Life Insurance	77 (183)	89 (89)	6.57**
Hospital Insurance	71 (169)	93 (93)	19.54****
Car Insurance	75 (136)	93 (85)	13.73****
House Insurance	88 (165)	95 (71)	0.19
Personal Savings	42 (99)	79 (79)	39.52****
Credit	74 (176)	87 (87)	6.95***
Bank Credit	51 (121)	74 (74)	15.47****
Household Items Insurance	60 (142)	84 (84)	18.82****

\*Figures listed are the percentages of the criterion group which reported possession of the resource; corresponding N's are included in the parentheses.

\*\* $p < .05$

\*\*\* $p < .01$

\*\*\*\* $p < .001$

might have existed prior to the tornado, such as types of insurance, credit and personal savings. Examination of these resources by sample indicated, as expected, that higher income families commanded greater amounts of internal resources than those with lower incomes (see Table IX). This held true for every type of internal resource about which we queried except one. Nearly all who owned homes reported some type of house insurance (95% – high income; 88% – low income). Most likely this reflects the requirement of lending institutions which want to protect their investment. For other types of insurance the differences were greater, as indicated in Table IX.

Analysis of the low income sample by race revealed several differences in the degree and type of internal resources possessed by whites and non-whites. Greater proportions of whites possessed every type of internal resource, with the exception of house insurance (see Table X). They were significantly more likely to have life insurance, hospital insurance, car insurance, personal savings, credit, bank credit, and household items insurance. Hence, the recovery capacity of whites, even within the low income

TABLE X

Variations in Internal Resource of Low Income Respondents by Race\*

Race	Life insurance	Hospital insurance	Car insurance	House insurance	Personal savings	Credit	Bank credit	Household items insurance
Whites	83 (112)	76 (102)	67 (89)	73 (98)	51 (69)	81 (108)	57 (76)	67 (90)
Non-Whites	68 (71)	64 (67)	45 (47)	67 (67)	28 (30)	65 (68)	43 (45)	50 (52)
X <sup>2</sup>	7.73 d.f. = 1 <i>p</i> < .01	3.891 d.f. = 1 <i>p</i> < .05	10.837 d.f. = 1 <i>p</i> < .001	1.49 d.f. = 1 <i>p</i> = n.s.	7.168 d.f. = 1 <i>p</i> < .01	7.34 d.f. = 1 <i>p</i> < .01	4.236 d.f. = 1 <i>p</i> < .05	7.168 d.f. = 1 <i>p</i> < .01

\*Figures listed are percentages of low income respondents who possessed various internal resources by race of respondent; corresponding N's are included in parentheses.

sample, was far greater than for non-whites within that same sample. Again this supports previous research which has pointed to the greater resource base of whites, in comparison to non-whites across all class levels (Terrel, 1971).

Further analysis of the low income and higher income samples by age groups also revealed important patterns of variation in the amount and types of internal resources possessed by victims. For the low income sample no significant differences were found among the different age groups regarding types of internal resources, with the exception of personal savings. Here, significantly more older persons (those 60 and above) possessed savings (54%), while only thirty-seven percent of those below the age of 39, and thirty-one percent of those between the ages of 40 and 59 indicated that they had savings (see Table XI). Within the higher income sample, significantly fewer older persons indicated that they had life insurance, credit, and bank credit, but more reported that they had household items insurance (see Table XI). All those below the age of 39 reported that they had life insurance as did nearly all (96%) of those between the ages of forty to fifty-nine.

In terms of utilization of internal resources,

our data indicates that of the victims who had the various types of resources, house insurance, household items insurance and car insurance were used most frequently and as would be expected victims who suffered extensive damage were significantly more likely to utilize these resources than victims who incurred moderate damage. Ninety percent of our victims who incurred extensive damage utilized their house insurance, while sixty-four percent of those who incurred moderate damage utilized this resource. Seventy-one percent of the victims who incurred extensive damage utilized household item insurance, while only six percent of those who incurred moderate damage utilized this resource. Finally, over half (55%) of the extensively damaged victims utilized their car insurance, while 40% of the moderately damaged victims did so.

Victims also reported little difficulty in the utilization of these resources; of the 686 possible mentions of problems (two for each possible source, for each victim) only fifty-five instances were reported. However, there was socioeconomic variation in difficulties encountered with the higher income sample reporting twice as many instances of problems than the lower income sample, i.e., 27% vs. 10%.

TABLE XI

Variations in Internal Resources of Low Income and High Income Respondents by Age\*

Age	Life insurance		Hospital insurance		Car insurance		House insurance		Personal savings		Credit		Bank credit		Household items insurance	
	Low income	High income	Low income	High income	Low income	High income	Low income	High income	Low income	High income	Low income	High income	Low income	High income	Low income	High income
39 or below	79 (46)	100 (33)	70 (41)	96 (32)	63 (37)	87 (29)	62 (36)	63 (21)	37 (22)	69 (23)	72 (42)	90 (30)	51 (30)	84 (28)	55 (32)	69 (23)
40-59	78 (71)	96 (30)	70 (63)	93 (29)	60 (54)	93 (29)	68 (62)	77 (24)	31 (28)	77 (24)	76 (69)	96 (30)	58 (53)	80 (25)	54 (49)	87 (27)
60 and above	73 (66)	72 (26)	72 (65)	88 (32)	50 (45)	75 (27)	74 (67)	72 (26)	54 (49)	88 (32)	72 (65)	75 (27)	42 (38)	58 (21)	67 (61)	94 (34)
X <sup>2</sup>	1.03 d.f. = 2 p = n.s.	16.34 d.f. = 2 p < .001	0.11 d.f. = 2 p = n.s.	1.75 d.f. = 2 p = n.s.	3.22 d.f. = 2 p = n.s.	4.82 d.f. = 2 p = n.s.	2.43 d.f. = 2 p = n.s.	0.46 d.f. = 2 p = n.s.	10.18 d.f. = 2 p < .01	3.89 d.f. = 2 p = n.s.	0.55 d.f. = 2 p = n.s.	7.65 d.f. = 2 p < .05	5.03 d.f. = 2 p = n.s.	7.32 d.f. = 2 p < .05	3.97 d.f. = 2 p = n.s.	8.17 d.f. = 2 p < .02

\*Numbers listed are percentages of low and high income victims who possessed various internal resources by age of respondent; corresponding N's are included in parentheses.

## SUMMARY AND CONCLUSION

We began by asking a rather simple question, but one which we know relatively little about — how do victims of a disaster recover? Our research confirms and extends observations made by previous researchers who have rated the emergence of a “Utopian mood” following large scale disasters in American communities (Fritz and Mathewson, 1957; Barton, 1969; Dynes, 1970). Many victims reported during our interviews that they were surprised at the amount of help and offers of help they received. Thus, three years after the event, this aspect remained an overwhelming part of their memories. But this point has further implications for future theory. Participation in the “Utopian mood” was not equal for all victims. A disaster like this one cannot be conceptualized as if it were a simple uniform stimulus. In this paper we have explored one dimension of the disaster experience; the recovery of victim families.

We have found that the help sources from which the largest proportion of families received aid was relatives and friends. Of course, many families — about one-third — also received various types of assistance from the Red Cross, Salvation Army, and other formal organizations. But the importance of informal groups in such emergencies cannot be underemphasized. Despite the extreme permeation and dominance of large-scale, highly bureaucratic organizations that provide much structure to American communities, these informal networks remain more critical than many analysts have assumed (Litwak and Szeleny, 1969). In crisis events like natural disasters, they are even more important, regardless of the socioeconomic characteristics of the families under study.

We expected that a smaller proportion of high income families would receive aid from relatives than those with low incomes, and possibly that lower income families might retreat from offers made by organizational officials. However, this was not the case. More high income families received aid from kin than did

those with low incomes. The organizational picture was mixed. More high income families received help from governmental agencies and unspecified voluntary organizations. But lower income families more frequently reported aid from the Red Cross, the Salvation Army, and religious organizations. Most of this aid, regardless of the source, was offered, not asked for.

Whites in the low income sample more frequently received help from kin and friends, but non-whites were more likely to receive help from religious organizations and the Red Cross. Older persons in the low income sample (those 60 and above) received less help from the Red Cross, employers, relatives, friends, Salvation Army, governmental agencies and strangers.

Certain kinds of help were given to some victims more than others. For example, frequently mentioned were food and clothing and rendering of personal services. Transportation rarely was mentioned. Certain types of help were supplied by only one or a few sources. For example, most shelter was provided by relatives. Other kinds of help were provided by a variety of sources, e.g., food and clothing. Most victims reported satisfaction with the help they received.

In examining the internal resource structure of victim families, we analyzed variations by socioeconomic status, race and age. Of course, as would be anticipated, families with higher incomes possessed more internal resources. However, even within the low income sample, whites possessed more internal resources than non-whites in every category with the exception of house insurance. Older persons in this sample more frequently mentioned that they had personal savings than younger persons. And for the higher income sample, older persons less frequently reported that they had life insurance, credit and bank credit but more frequently reported that they had household item insurance.

In conceptualizing victim families during this recovery period we found the analogy of the family as an open system exceedingly helpful. The external groups which provided help to

victim families can be viewed as linkages which aided victim families in adapting to their environment. The linkages which these victim families established varied in terms of the type of linkage established (for example, kin versus the Red Cross) and the number of linkages established. As an open system, victim families also possessed internal resources which also varied in amount and type. We are therefore arguing that "recovery" of victim families after a disaster is a complex process involving many dimensions both internal and external to the family. In this paper we hope we have begun to specify some of the critical dimensions involved in this process.

## NOTES

- 1 Our classification was made along these dimensions because of the low mortality and injury rate. Within the entire city only 17 were reported dead and 550 injured as a result of the tornado. Within the total victim sample (338) only 6% had any member with physical injury and only 3 family members in the entire 338 family sample had an injury serious enough to require hospitalization. Hence, the major type of loss for victims centered around their possessions, e.g., house, car, furnishings.
- 2 Determination of the lower census tracts was based on 1960 U.S. census data, using the variable of property value and median income for each census tract. These two variables gave us the best available index of the socioeconomic characteristics of each census tract. When we ranked the census tracts by median income and median property value, there was the expected high correlation between the two variables ( $r = .92$ ). (For a detailed description of this procedure see Drabek et al., 1973).
- 3 Such an "ecological" procedure can result in distortions, i.e., many persons with low incomes might reside in census tracts which have as a collective characteristic high median family incomes (Robinson, 1950; Barton, 1969: 214–216). However, as we have reported elsewhere, analysis of aggregated data based on individual responses such as level of formal education supports the validity of our sample designation in this instance. For example, nearly two-thirds (65%) of the low income victim sample ( $N = 238$ ) completed eleven years of formal education or less, while all but eighteen percent of the high income sample ( $N = 100$ ) had graduated from high school or had more years of formal education (Drabek and Key, 1975).
- 4 Specifically, in terms of help from external groups, nine sources of potential aid were identified; relatives, friends, religious organizations, Red Cross, Salvation Army, voluntary organizations, governmental agencies, strangers and employers. Our concern was with answering the following questions:
  1. Which groups aided victim families?
  2. What kinds of help did these groups give?
  3. Was help offered to victim families or did they have to ask for it?
  4. Did victim families report problems in receiving help from these groups?
  5. Would victim families turn to these groups again for help if a similar event occurred?
 Similarly, for aid obtained in recovery through the utilization of internal resources, we asked the following set of questions about several potential resources, e.g., house insurance, car insurance, savings, credit and the like.
  1. Prior to the tornado, what types of internal resources did victim families have?
  2. Did victim families utilize these resources as a result of the tornado?
  3. Did victim families have any problems using these resources?

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