

Trust, Social and Personal Attitudes after Wildfires in a Rural Region of Greece

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We investigated the trust in institutions, social values and personal attitudes of individuals in a part of Greece, after a wildfire disaster. The design of the study was a cross sectional, case-control study. Data collected were trust in institutions, social and personal attitudes, type and number of losses. The results show that victims and controls have low trust in all the institutions and share similar social and personal attitudes. Controlling for other variables, victims of the wildfires were less likely to appreciate stable social rules, to value the dialogue, autonomy, mutual support, modesty, wealth, equality, compliance with law, devotion, public recognition, safety and less likely to trust the government but more likely to trust church. This study suggests that victims of the wildfires in Greece did not appreciate important social values which bring a society together, they have a low trust in institutions, and they have a weak social cohesion which perhaps pre-existed the disaster; just the disaster has made all of them worse.

Keywords: Disasters; Wildfires; Greece; Trust; Social Capital; Social Cohesion

Introduction

Disaster involves not only physical and psychological destruction but also social destruction. At the onset of a natural disaster social theories have emphasized that the disaster can potential bring people together to respond to common threat (Turner, 1978).

However after a disaster the loss of important support is inevitable and social and community resources are weakening exactly the time when victims need them, (Kaniasty & Norris, 1993). The consequences are changes in the social system which is the most common characteristic after a disaster. (Crocq, Doutheau, & Salham, 1987). Because of that most of the definitions of a disaster follows a sociological point of view in their description. (Lopez-Ibor, 2006). Furthermore, it has been recognized that mental health outcomes are not only dependent on the individual traumatic experiences and the losses, but also from the destruction of the social context which happens after a disaster. (Kawachi & Subramanian 2006; Galea, Tracy, Norris, & Coffey, 2008).

Although a number of papers have investigated social construction, norms, trust, networking and social support in the preparedness of a disaster in theoretical and in research levels e.g. (Agrawal et al., 2008; Barton, 1969; Dynes & Quarantelli, 1980; Jalali, 2002; Miller, 2007; Schellong, 2007) the social responses have been less studied in the aftermath of a disaster. (Evans & Rollins, 2008). Similarly the nature of a disaster may affect in different ways the social dynamics and also the different cultures and social-psychological factors, may affect also

the responses to a disaster. (Evans & Rollins, 2008). Furthermore, Carroll, Higgins, Cohn, & Burchfield, (2006) examined the specific sources of social conflict in communities during and after wildfire in the American West. They found that conflict occurs when social relations are disembedded by non-local agency, and there was an apparent loss of local involvement. When forms of interaction and problem solving imposed by outside organizations during and after wildfire events they often were resisted by local agencies which were also difficult to act because of local capacity limitations.

Moreover, trust is a sign of cooperative behavior: A high level of trust facilitates cooperative behavior of a victim with those who can help outside; opposite, a low level of trust inhibits cooperation and thus potentially can reduce the outside support. (Montgomery, Jordens, & Little, 2008). Similarly social and personal attitudes are surrogate markers of social foundations and can facilitate or block support after a disaster.

Natural disasters are frequent events in Greece and wildfire disasters are more frequent. (EM-DAT 2008). In August of 2007 an intense and destructive wildfire broke out in the Peloponnesus peninsula in Greece. The fires were uncontrollable for several days and it was estimated that about 1500 square kilometers of forests, olive trees, and farmland were destroyed. Also villages were burned in these fires and sixty people were killed (EM-DAT 2008). A national disaster was declared and the areas affected by the fires were designated for further support. Mental health teams were called to support the suffering population aiming to restore psychological and social functioning of individuals but also of fire-fighters. Similarly, research was undertaken to measure mental health and social problems

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for an effective public planning for disasters.

The aims of the present study were to investigate the impact of wildfires in the affected communities in terms of trust in certain institution/organizations and their social values and personal attitudes.

Method

Design of the Study

Cross sectional case control study.

Participants

The cases were residents aged from 18 years to 65 years old who lived in the disaster areas. The controls were closely matched for gender, age, educational, marital and regional distributions and were residents of directly adjoining areas in which there was no fire damage in the immediate neighborhood. A more detailed description of the method has been published elsewhere (Mellon, Papanikolaou, & Prodromitis, 2009).

Measurements

1) Demographic characteristics (age, gender, educational background, marital status, occupation).

2) Symptom Checklist 90-Revised (SCL-90-R; Derogatis, 1992). The SCL-90-R has 90 items, which measure the degree of distress experienced the individual during the last 7 days, using a 5-point scale (0 to 4) that ranges from “not at all” to “extremely.” The SCL-90-R can be scored for nine symptom dimensions. In addition to the nine dimensions, there are three global indices that are computed. The Global Severity Index (GSI), which is the sum of all the nonzero responses, divided by 90 (if there are no missing responses) and reflects both the number of symptoms endorsed and the intensity of perceived distress. The Positive Symptom Total (PST) which is defined as the number of symptoms to which the patient indicates a non-zero response. This is a measure of the number of symptoms endorsed. Thus it can be interpreted as a measurement of symptoms span. The Positive Symptom Distress Index (PSDI) is calculated by dividing the sum of all item values by the PST; thus, this is a measure of “intensity” corrected for the number of symptoms. The validity and reliability of the Greek SCL-90-R has proven to be satisfactory (Donias, Karastergiou, & Manos, 1991).

3) Number and type of losses as a result of the fire including: a) damage to property (Yes vs. No); b) complete damage and loss of property (Yes vs. No); c) personal injury or injury of a close family member (Yes vs. No); and d) deaths of close family members. (Yes vs. No). The responses to questions a and b were mutually exclusive. If more than one loss had happened all of them counted (number of losses).

4) A questionnaire which examines the trust of respondents in 12 institutions/establishments/organizations namely: Government, Church, Military, Local government, Private sector, Trade-unions, Non Governmental/Voluntary organizations, Justice, Education, Police, Political parties, Media and None of the above.

5) A questionnaire with 21 social values in which the participants could choose the ones which were more representative of them. Among the social values were Prestige, Devotion, Autonomy, Display of power, Mutual Help, Modesty, Wealth,

Equality, Tradition, Public recognition, Safety, and others (for a full list see **Table 3**).

Procedure

Data were collected in face-to-face interviews conducted during a 14-day period beginning 6 months after the outbreak of the wildfires (March 2008). Households in designated disaster areas and in directly adjoining areas undamaged by fire were selected randomly from residency data provided by the municipalities surveyed. In each household only one interview was conducted.

Ethics

The study has been approved by the Ministry of Health and informed consent was obtained from each participant.

Statistical Analysis

Data were analyzed with PASW (SPSS) v18, using appropriate bivariate statistics. For the non-normally distributed data, non-parametric tests were used. The Q Local v 2.1.11, was used for the estimation of the standardized T scores from the raw data for the SCL-90-R scale.

Results

Demographics

The initial sample consisted of 800 participants: 409 cases (those victims from the disaster) and 391 controls. The two groups did not differ between them in demographic and occupational characteristics, but a higher proportion of those in control group had higher education compared to cases, while those who finished primary or secondary school had similar representativeness in the two groups (see **Table 1**).

Trust in Institutions

We compared the trust of cases and controls in 12 different institutions/organizations (**Table 2**). Both groups (victims of the disaster and controls) had a low trust in all the institutions for which they asked (see also **Table 2** column “Total”). In the highest rate was Church but only 1 out of 3 participants had a trust in the Church. All the other institutions had a low preference of trust. Similarly about 35 of the participants did not trust any institution. As this percentage was high for both groups, we investigate this population further (see below). In addition, there were not statistically significant differences between cases (victims) and controls in their trust in the investigated organizations with only one exception the trust in government. More victims did not have any trust to government compared to the controls.

Social Values and Personal Attitudes

The most important social and personal values for the entire sample were dialogue and communication among people, mutual support, nature, safety and creativity, while the less important were Ostentation of power/wealth, Adventure, Variety, Wealth, and Prestige (see **Table 3** column “Total”).

For the victims nature was a significant value compared to controls.

Table 1.
Demographic characteristics of sample.

		Cases (N = 409)		Controls (N = 391)		Pearson χ^2
		Count	Column N %	Count	Column N %	
Gender	Male	215	52.6%	202	51.7%	$\chi^2 = 0.07$, df 1, p = 0.8 (NS)
	Female	194	47.4%	189	48.3%	
Age group	18 - 25	74	18.1%	67	17.1%	$\chi^2 = 0.93$, df 4, p = 0.9 (NS)
	26 - 35	100	24.4%	102	26.1%	
	36 - 45	86	21.0%	88	22.5%	
	46 - 55	80	19.6%	75	19.2%	
	56 - 65	69	16.9%	59	15.1%	
Education	Primary school	106	25.9%	91	23.3%	$\chi^2 = 7.16$, df2, p = 0.03
	Secondary school	272	66.5%	248	63.4%	
	College/university	31	7.6%	52	13.3%	
Marital status	Married	268	65.5%	251	64.2%	$\chi^2 = 0.48$, df 3, p = 0.92 (NS)
	Single	127	31.1%	127	32.5%	
	Divorced	4	1.0%	5	1.3%	
	Widowed	10	2.4%	8	2.0%	
Occupation	Professional occupation	79	19.3%	70	17.9%	$\chi^2 = 3.4$, df 2, p = 0.18 (NS)
	Sales and customer service occupation	67	16.4%	84	21.5%	
	Elementary occupation	263	64.3%	237	60.6%	

Table 2.
Trust of victims and controls in institutions, establishments, organizations.

Institutions/Organizations		Cases (N = 409)		Controls (N = 391)		Total		Pearson χ^2
		Count	Column N %	Count	Column N %	Count	Column N %	
Government	NO	362	88.5%	324	82.9%	686	85.8%	$\chi^2 = 5.21$, df 1, p = 0.02
	YES	47	11.5%	67	17.1%	114	14.3%	
Church	NO	268	65.5%	276	70.6%	544	68.0%	$\chi^2 = 2.35$, df 1, p = 0.12 (NS)
	YES	141	34.5%	115	29.4%	256	32.0%	
Military	NO	377	92.2%	360	92.1%	737	92.1%	$\chi^2 = .003$, df 1, p = 0.96 (NS)
	YES	32	7.8%	31	7.9%	63	7.9%	
Local government	NO	393	96.1%	381	97.4%	774	96.8%	$\chi^2 = 1.16$, df 1, p = 0.28 (NS)
	YES	16	3.9%	10	2.6%	26	3.3%	
Private sector	NO	390	95.4%	366	93.6%	756	94.5%	$\chi^2 = 1.18$, df 1, p = 0.28 (NS)
	YES	19	4.6%	25	6.4%	44	5.5%	
Trade unions	NO	394	96.3%	369	94.4%	763	95.4%	$\chi^2 = 1.74$, df 1, p = .19 (NS)
	YES	15	3.7%	22	5.6%	37	4.6%	
Voluntary/no governmental	NO	365	89.2%	348	89.0%	713	89.1%	$\chi^2 = .012$, df 1, p = .91 (NS)
	YES	44	10.8%	43	11.0%	87	10.9%	
Justice	NO	381	93.2%	356	91.0%	737	92.1%	$\chi^2 = 1.22$, df 1, p = .27 (NS)
	YES	28	6.8%	35	9.0%	63	7.9%	
Education	NO	387	94.6%	368	94.1%	755	94.4%	$\chi^2 = .095$, df 1, p = .76 (NS)
	YES	22	5.4%	23	5.9%	45	5.6%	
Police	NO	370	90.5%	368	94.1%	738	92.3%	$\chi^2 = 3.73$, df 1, p = .052 (NS)
	YES	39	9.5%	23	5.9%	62	7.8%	
Political Parties	NO	408	99.8%	390	99.7%	798	99.8%	$\chi^2 = .001$. df 1, p = .97 (NS)
	YES	1	.2%	1	.3%	2	.3%	
Media	NO	378	92.4%	363	92.8%	741	92.6%	$\chi^2 = .05$, df 1, p = .82 (NS)
	YES	31	7.6%	28	7.2%	59	7.4%	
None of the above	NO	267	65.3%	248	63.4%	515	64.4%	$\chi^2 = .3$, df 1, p = .58 (NS)
	YES	142	34.7%	143	36.6%	285	35.6%	

Table 3.
Social and personal attitudes of victims and controls.

Values/attitudes		Cases (N = 409)		Controls (N = 391)		Total		Pearson χ^2
		Count	Column N %	Count	Column N %	Count	Column N %	
Dialogue/communication among people	NO	191	46.7%	172	44.0%	363	45.4%	$\chi^2 = .59$, df:1, p = .442 (NS)
	YES	218	53.3%	219	56.0%	437	54.6%	
Stable social rules	NO	371	90.7%	348	89.0%	719	89.9%	$\chi^2 = .64$, df:1, p = .424 (NS)
	YES	38	9.3%	43	11.0%	81	10.1%	
Ostentation of power/wealth	NO	404	98.8%	385	98.5%	789	98.6%	$\chi^2 = .14$, df:1, p = .705 (NS)
	YES	5	1.2%	6	1.5%	11	1.4%	
Autonomy	NO	312	76.3%	276	70.6%	588	73.5%	$\chi^2 = 3.33$, df:1, p = .068 (NS)
	YES	97	23.7%	115	29.4%	212	26.5%	
Mutual support	NO	211	51.6%	198	50.6%	409	51.1%	$\chi^2 = .07$, df:1, p = .788 (NS)
	YES	198	48.4%	193	49.4%	391	48.9%	
Modesty	NO	338	82.6%	298	76.2%	636	79.5%	$\chi^2 = 5.06$, df:1, p = .024
	YES	71	17.4%	93	23.8%	164	20.5%	
Wealth	NO	390	95.4%	363	92.8%	753	94.1%	$\chi^2 = 2.29$, df:1, p = .130 (NS)
	YES	19	4.6%	28	7.2%	47	5.9%	
Variety	NO	399	97.6%	379	96.9%	778	97.3%	$\chi^2 = .29$, df:1, p = .590 (NS)
	YES	10	2.4%	12	3.1%	22	2.8%	
Equality	NO	314	76.8%	289	73.9%	603	75.4%	$\chi^2 = .88$, df:1, p = .348 (NS)
	YES	95	23.2%	102	26.1%	197	24.6%	
Compliance with law	NO	363	88.8%	320	81.8%	683	85.4%	$\chi^2 = 7.65$, df:1, p = .006
	YES	46	11.2%	71	18.2%	117	14.6%	
Adventure	NO	401	98.0%	379	96.9%	780	97.5%	$\chi^2 = 1.02$, df:1, p = .313 (NS)
	YES	8	2.0%	12	3.1%	20	2.5%	
Leisure	NO	300	73.3%	298	76.2%	598	74.8%	$\chi^2 = .87$, df:1, p = .351 (NS)
	YES	109	26.7%	93	23.8%	202	25.3%	
Nature	NO	203	49.6%	225	57.5%	428	53.5%	$\chi^2 = 5.03$, df:1, p = .025
	YES	206	50.4%	166	42.5%	372	46.5%	
Prestige	NO	383	93.6%	368	94.1%	751	93.9%	$\chi^2 = .08$, df:1, p = .780 (NS)
	YES	26	6.4%	23	5.9%	49	6.1%	
Creativity	NO	303	74.1%	271	69.3%	574	71.8%	$\chi^2 = 2.25$, df:1, p = .134 (NS)
	YES	106	25.9%	120	30.7%	226	28.3%	
Devotion	NO	371	90.7%	337	86.2%	708	88.5%	$\chi^2 = 4.01$, df:1, p = .045
	YES	38	9.3%	54	13.8%	92	11.5%	
Public recognition	NO	382	93.4%	328	83.9%	710	88.8%	$\chi^2 = 18.11$, df:1, p = .0001
	YES	27	6.6%	63	16.1%	90	11.3%	
Safety	NO	256	62.6%	236	60.4%	492	61.5%	$\chi^2 = .42$, df:1, p = .516 (NS)
	YES	153	37.4%	155	39.6%	308	38.5%	
Having a good time	NO	347	84.8%	333	85.2%	680	85.0%	$\chi^2 = .02$, df:1, p = .898 (NS)
	YES	62	15.2%	58	14.8%	120	15.0%	
Tradition	NO	312	76.3%	316	80.8%	628	78.5%	$\chi^2 = 2.44$, df:1, p = .119 (NS)
	YES	97	23.7%	75	19.2%	172	21.5%	
State	NO	371	90.7%	369	94.4%	740	92.5%	$\chi^2 = 3.87$, df:1, p = .049
	YES	38	9.3%	22	5.6%	60	7.5%	

Other statistically significant differences (Table 3) between cases and controls in their consideration of important social and personal values were: modesty which more controls rated it as

important compared to cases, devotion, compliance with law, and public recognition. Opposite more of the victims think that the state is an important value in the society, compared to con-

trols, but this difference was in close proximity to be statistically significant ($p = 0.049$).

Regression Analysis

To investigate further the differences of the two groups in both social attitudes and trust after adjusting for other variables, a logistic regression analysis was performed. Dependent variable was the binary variable cases or controls (victim or not by the wildfire), and independent variables were the demographic and individual characteristics (gender, age group, marital status, occupation), the number and type of losses as a result of the fire, the trust in the 12 institutions and the 21 investigated social and personal values. The backward stepwise (likelihood ratio) method was used. The final more parsimonious model is presented in **Table 4**. Note that some variables although not significant they have effects in the final model and they increase the classification rate. The model classified overall 63% of cases and controls correctly while for the cases only, it has a correct classification of 70%.

According to **Table 4**, victims of the wildfires were less likely to value the dialogue and communication, less likely to want stable social rules (but both not in statistically significant level), less likely to value autonomy, mutual support, modesty, wealth equality, compliance with law, adventure, creativity, devotion, public recognition, safety and less likely to trust the government but more likely to trust church.

Further Analysis of Those Who Did Not Trust Any Institution

As there was a reasonable high number of those who did not trust any institution ($N = 285, 35.6\%$) of the entire sample, we further investigate them to see their psychological profile and their attitudes adjusting for demographic and other characteristics. For this reason a logistic regression analysis was carried out. In this analysis dependent variable was the trust on none

institution (outcome yes, no) and independent variables were demographic characteristics, the belonging in the victims or not group, the nine dimensions of psychological symptoms as they measure with the SCL-90R plus the 3 indices of SCL-90R (GSI, PST, PSDI) and the variables of social values and personal attitudes.

The backward stepwise (likelihood ratio) method was used. The final more parsimonious model is presented in **Table 5**. The total sample analyzed here was 606 subjects (mainly missing data in SCL-90R and false positives or negatives in SCL-90R which were excluded). The number of participants who did not trust any of the listed institutions was 181 (30%) and those who trust any was 425 (70%).

It seems from the **Table 5** that those who did not trust any institution were more likely to be the victims of the disaster (cases) with more losses from the disaster, with increased the dimension of depression and paranoia (the later did not reach statistical significant level), with fewer numbers of other psychological symptoms and intensity and they were more likely to value the compliance with law and the state, and less likely to value the leisure.

Discussion

The results show that the victims of the disaster did not trust to government compared to the controls. Although bivariate statistics shows that this was a significant difference, it's statistically significance disappeared in the regression analysis but the importance of the variable is emerge through its contribution to the final model. The lack of trust in the government has also been reported in other studies which investigated victims of disasters (Quinn 2006).

The surprising result is that both cases and controls have a low trust in nearly all the organizations. Even the Church which is a very powerful institution in Greece and it involves not only in religious matters but also in any aspect of civilian life and politics had a low rate of trust (but the highest among the insti-

Table 4. Regression analysis: of cases and controls in relation to trust and social and personal attitudes.

Variables ¹	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for Exp(B)	
							Lower	Upper
Dialogue among people	.304	.156	3.811	1	.051	1.355	.999	1.838
Stable social rules	.437	.252	3.007	1	.083	1.548	.945	2.536
Autonomy	.427	.173	6.095	1	.014	1.532	1.092	2.150
Mutual support	.311	.156	3.948	1	.047	1.365	1.004	1.854
Modesty	.503	.191	6.951	1	.008	1.654	1.138	2.404
Wealth	1.166	.338	11.890	1	.001	3.209	1.654	6.227
Equality	.465	.178	6.846	1	.009	1.592	1.124	2.255
Compliance with law	.758	.221	11.770	1	.001	2.133	1.384	3.288
Adventure	.951	.485	3.840	1	.050	2.589	1.000	6.704
Creativity	.396	.168	5.537	1	.019	1.487	1.068	2.068
Devotion	.754	.240	9.883	1	.002	2.125	1.328	3.401
Public recognition	1.094	.256	18.343	1	.000	2.987	1.810	4.929
Safety	.431	.162	7.111	1	.008	1.538	1.121	2.111
Government	.390	.226	2.986	1	.084	1.477	.949	2.298
Church	-.274	.167	2.694	1	.101	.761	.549	1.055
Constant	-1.393	.243	32.893	1	.000	.248		

¹Reference category = controls. The signs in the estimates column (B) indicate the direction of the relationship, i.e. the (-) means that this variable contributes negatively.

Table 5.
Analysis of participants who did not trust any institution.

Variables ¹	B	S.E.	Wald	df	Sig.	Exp (B)	95% C.I. for Exp (B)	
							Lower	Upper
Victims of disaster	.488	.237	4.225	1	.040	1.629	1.023	2.594
Number of losses			8.386	3	.039			
No losses	-.272	1.447	.035	1	.851	.762	.045	12.997
One loss	-.819	1.439	.324	1	.569	.441	.026	7.401
Two losses	.003	1.472	.000	1	.998	1.003	.056	17.976
Depression	.036	.018	4.161	1	.041	1.037	1.001	1.073
Paranoid	.021	.012	2.743	1	.098	1.021	.996	1.046
PSDI	-.022	.010	4.932	1	.026	.978	.959	.997
PST	-.061	.020	9.792	1	.002	.941	.905	.977
Compliance with law	.600	.361	2.756	1	.097	1.821	.897	3.697
Leisure	-.587	.208	7.993	1	.005	.556	.370	.835
State	1.376	.543	6.413	1	.011	3.959	1.365	11.485
Constant	-.792	1.725	.211	1	.646	.453		

¹Reference category = no trust. The signs in the estimates column (B) indicate the direction of the relationship, i.e. the (-) means that this variable contributes negatively.

tutions).

Because we have found high proportions of psychological distress in both victims and controls (Papanikolaou, Adamis, Mellon, & Prodromitis, 2011) we have hypothesized that maybe controls have been affected by the media and the distressing images which they broadcasting every day. However this explanation is less likely here. Media is difficult to rip apart the trust in all the more important organizations in so brief time (6 months after the disaster) and destroy the civic status of entire communities, despite their powerful influences. A previous study (Lyberaki & Paraskevopoulos, 2002) has shown that Greeks have a low level of trust in the most public institutions, like political parties, the civil service, the government and the parliament. Similarly a more recent survey (Papadimitriou, 2007) in younger Greek population (18 to 28 years old) has reported that 90% did not trust the parliamentary members, 80% did not trust the trade unions, 76% did not trust the politics, and only the 38% trust the church. In addition the same survey reported that more than half (53%) of Greek young people are unconcerned about other people and only 21.5% trust other people and those only to some degree. This survey also reveals that a 38% of young people may offer financial help in case of natural disaster to the victims.

Moreover trust has been identified as a vital component of social capital (Putnam, Leonardi, & Nanetti 1993). Trust in institutions is considered a central outcome measure for the identification of social capital (Newton & Norris, 2000). Social capital has inherited difficulties to be measured because of its different operational definitions e.g. (Bourdieu, 1986; Coleman, 1988; Fukuyama, 2001; Putnam, Leonardi, & Nanetti, 1993). However, a number of studies which measure social capital in Greece agree that Greeks have a low social capital, and the lowest when it compared with other European citizens, with any operating definition or measured outcome used, for instance, trust in institutions, social trust, social networks, social norms, voluntary participation (Christoforou, 2005; Panagiotopoulou & Papiakou, 2007; Sotiropoulos & Karamagioli, 2005). In addition a study which investigated social capital for 13 Greek regions found that Peloponnesus (the area where the wildfires happened) was among the last three with the lowest

social capital (Jones, Malesios, Iosifides, & Sophoulis, 2008).

Thus it is very likely that in both, cases and controls the trust and the social capital were very low before the disaster. Perhaps the concept of sociocultural “disintegration” can explain some of those findings. (Leighton, 1959). According to Leighton’s theory catastrophic events can disrupt norms and forms, disrupt compromised social support, and reduce the feelings of a social and moral order with consequences an increased mental health risk. Thus if we accept the Leighton’s theory, a low “integrated” society is more vulnerable and has an increased risk if and when it is affected directly or indirectly by a catastrophic event. Similar observations have been reported by Dynes & Quarantelli, 1980; Dynes, 2002; Quinn, 2006.

As our data were cross sectional we cannot be affirmed that the pre-disaster communities were already low “integrated”. However given the above reported studies plus our data this is a feasible hypothesis.

In addition and in accordance with the above hypothesis, are the findings of social values and personal attitudes. Both controls and victims shared the same attitudes and values and there were not significant differences between them with few exceptions. Victims value nature more than controls (possible because they have lost it from the wildfires), they value less the public recognition and they appear more “rebellious” as they did not value the state and the compliance with law. Perhaps the last two findings is a kind of reaction to establishment as hostility and blame against society in which the disaster took place and against its leaders is common phenomenon in the aftermath of a disaster. (Lopez-Ibor, 2006). However values which help the social cohesion, like dialogue and communication, stable social rules, autonomy, mutual support, equality, devotion, safety are rated quite low by both victims and controls and there were not significant differences between them. When we control for the other variables in the regression analysis (**Table 4**) the impact of wildfires became more profound in the community. The most important social values of a civic engagement and trust have been disappeared in the victims of the wildfires. Social norms and values like communication, mutual support, stable social rules, equality, safety, modesty, wealth, public recognition, adventure, creativity, and devotion are in a very

low appreciation in the victims compared to controls. Thus if we accept the assumption that the controls reflect a pre-disaster level of civic status of the victims it is obvious that the disaster has destroyed even the low levels of social norms, trust and social capital.

If this model and explanations are hold and be replicated by other studies, it has serious implications for the post disaster recovery but more important for the preparation and protection of other disasters at least in Greece. Research has showed that human and social capital are essential components of resilience, and individuals and communities can effectively respond to a disaster by gather together trust, social support, and social capital to either re-establish a previous state of equilibrium or to develop a different but still adaptive state (Kirmayer, Sehdev, Whitley, Dandeneau, & Isaac, 2009; Paton et al., 2009; Rolfe, 2006; Sakamoto & Yamory, 2009; Schellong, 2007).

Finally we further analyzed those who did not trust any institution. Those who did not trust any institution were victims who have more losses from the disaster, more likely to be depressed and paranoid with less number of other psychological symptoms and intensity and they were more likely to value the compliance with law and the state, and less likely to value the leisure. Although a first interpretation of this finding is that they may represent an anti-social or egoistic population we need to consider two other factors, the losses and the depression. An alternative explanation is this of demoralization. Apathy is a characteristic of demoralization but is quite different from depression although those two syndromes have similar presentation. Demoralization has been defined as a state in which the individual feels helpless, hopeless, impotent, and isolated. (de Figueiredo & Frank, 1982). Demoralization is experienced as existential despair, hopelessness, helplessness, and loss of meaning and purpose in life. (Clarke & Kissane, 2002). The core symptom of demoralization is the difficulty to cope, the sense of being trapped, not knowing what to do, and coupled with social isolation the individual have the feeling of alienation. (Lazarus & Folkman, 1984). Demoralization has not yet gained its merit in psychiatric nomenclature and thus very few studies have investigated it in natural disasters although (Parson, 1990) have found symptoms of demoralization in Vietnam veterans and other individuals who have experienced a very stressful event, and he named it as Post-Traumatic Demoralization Syndrome.

Nevertheless the last finding was unexpected and not in the aims of this study and possible need further investigation and replication with new studies in natural disasters mental health outcomes.

Conclusion

In conclusion, the work presented here found that victims of the wildfires in Greece have lost their faith in important social values which bring a society together, like dialogue and communication with other people, social rules, mutual support, modesty, compliance with law, devotion, safety, and trust. In addition this study suggests that an already low level of trust in institutions, a low social capital and a weak social cohesion perhaps pre-existed the disaster and that just the disaster has made all of them worse. Thus to quote Jim Wallis "Some times it takes a natural disaster to reveal a social disaster" (Wallis, 2006).

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