

The Social Impact of the 2008 Global Economic Crisis on Neighborhoods, Households, and Individuals in Turkey

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Abstract This paper deals with the social impact of the 2008 global economic crisis on urban Turkey. Empirical evidence drawn from recently collected survey data using a multi-stage, stratified, random cluster sample illustrates the extent to which the *economic* crisis was also a *social* crisis. Analyses of three different levels—the neighborhood, household, and individual—highlight multiple detrimental effects, as seen in increased neighborhood social problems, household economic hardship and associated coping strategies, and individual mental and physical health problems. While post-crisis economic hardship, as measured by job loss, earnings reduction, and underemployment, was wide-spread, lower socioeconomic groups, renters, and Kurdish households suffered more. Economic hardship was also associated with a range of household coping strategies, both of which represent potential longer-term secondary social impacts, particularly in the Turkish context, when government safety nets are weak and families are left to fend for themselves. If appropriate measures are not taken, the long-term effects may go beyond the current generation of workers to affect the future wellbeing of vulnerable groups.

Keywords Turkey · Global economic crisis · Neighborhoods · Household coping strategies · Stress · Depression · Physical health

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1 Introduction

It is well known that economic crises are an ongoing threat to the economic wellbeing of societies. Countries hit by economic crises have typically experienced sharp increases in unemployment and poverty, and declining living standards (BBC World Service Poll 2009; Ching 2000; IMF 2009; TEPAV et al. 2009; Verick 2009; World Bank 2001, 2003). However, less attention has been paid to their effects on social wellbeing. Our purpose is to examine the social impacts of the global economic crisis that hit many countries in the early fall of 2008 in a new societal context—Turkey. We analyze the social impacts of the economic crisis on three levels: (1) neighborhoods, (2) households, and (3) individuals. Based on data collected from a sample of urban neighborhoods and families in 2011, our main research question is the following: What social impact did the 2008 global economic crisis have on neighborhoods, households, and individuals in Turkey?

2 Research on Social Consequences of Economic Crises

2.1 Impact on Neighborhoods

The deterioration of urban neighborhoods in North America and Western Europe following a rapid period of economic restructuring and deindustrialization in the 1970s and 1980s is well documented (Kasarda 1989; Wilson 1987; Jargowsky 1996; Mingione 1996). Studies show that disadvantaged neighborhoods suffered disproportionately from increasing concentrations of poverty and associated social problems (Sampson et al. 1997; Elliott et al. 1996). Consistent with earlier literature, recent research findings on the impact of the 2008 “Great Recession” on neighborhoods also show increased neighborhood social problems between 2005 and 2009 in the United States as a result of the crisis (Allen, 2013). A central question is whether this is occurring for neighborhoods in Turkey as well. Based on the previous findings in US and Western Europe, we hypothesize that neighborhood social problems in Turkey will intensify in the aftermath of the 2008 economic crisis.

2.2 Impact on Households and Individuals

According to the family stress model, macroeconomic downturns that produce high levels—and lengthy periods—of unemployment create widespread economic distress for individuals and their families (Conger et al. 1994). The family stress model, which was originally developed for studying the effects of the US farm crisis on families, was also applied to other societies undergoing economic crises (Conger et al. 1990; Hraba et al. 2000; Kinnunen and Pulkkinen 1998; Kwon et al. 2003). Testing the family stress model in Finland, Kinnunen and Pulkkinen (1998) report that longer periods of unemployment and economic stress during the 1990s led to greater depression among both women and men. Similarly, research on Czech families coping with economic hardship during the transition to a market-oriented economy found a link between economic pressure in 1994 and being more irritable and depressed in later years (Hraba et al. 2000).

The family stress model has also been tested in non-western societies. Research on South Korea analyzing the impact of the Asian economic crisis on families generally supported the family stress model (Kwon et al. 2003). Their results showed that those who experienced greater economic pressure (i.e., having difficulties making ends meet, having to reduce expenditures, and taking loans), also experienced greater marital conflict and lower marital satisfaction.

Research on crisis impacts in Turkey showed that during the 2001 economic crisis couples reported having greater marital problems (Aytaç and Rankin 2009), and individuals reported higher levels of stress, emotional distress, headaches, upset stomach and sleep problems (Aytaç and Rankin 2008).

While the social impacts of economic hardship are well documented, there is a dearth of literature on the secondary effects of adjustments that households and individuals make in order to deal with hardship. However, coping strategies themselves may also have negative consequences. Some, such as cutting back on luxury items, are easily implemented and sacrifice little, whereas others (e.g., liquidating assets, taking on more debt, putting a child to work, or switching to cheaper foods) can have immediate and potentially long term implications for family wellbeing (Thomas and Frankenberg 2005).

Based on the research cited above and the family stress model, we hypothesize that the greater the labor market difficulties experienced by the household breadwinner (such as a job loss, long spells of unemployment, reduced earnings or underemployment), the greater the households will rely on their savings or will need to borrow money. We also hypothesize that households experiencing greater economic hardship will use more coping strategies, such as searching for additional or alternative labor market activities, family structure strategies (such as moving to cheaper residences or combining households), adjusting consumption, and so on.

Next, we assess how individuals themselves are affected from the crisis. Earlier research on the impact of the 2001 Turkish economic crisis in Turkey showed that less educated, younger and Kurdish adults had more negative experiences in urban labor markets (Rankin 2011). Based on family stress model that predicts an overall positive relationship between economic pressure and unfavorable individual outcomes, we hypothesize that individuals who experience greater economic hardship and economic strain as a result of the 2008 global economic crisis will report higher levels of stress, feelings of depression and physical health problems.

3 Background

Turkey has had many economic crises, including one in 2001, which at the time was considered to be one of the worst economic crises since the founding of the Republic in 1923. The more recent 2008–2009 global economic crisis also hit many hard in Turkey. Nearly half a million lost jobs from August 2008 through January 2009 (Radikal 2009). The unemployment rate reached 13.6 % in December 2008, up from 10.6 % in the previous year. Non-agricultural workers and young people have been particularly affected, with unemployment rates at 17.3 and 25.7 %, respectively (Turkstat 2009). Figure 1 graphs the seasonally adjusted and unadjusted unemployment rates from 2005 to 2010, showing a clear jump in the unemployment rate in the aftermath of the 2008 global financial crisis. Based on this, it is clear that the crisis did not ‘bypass’ Turkey as the prime minister had initially announced, but later retracted (Milliyet 2009).

The social impact of the recent crisis on Turkish families is best viewed in light of social structural and cultural factors that influence both economic strain and the resulting effects on intra-family dynamics. The threat to family wellbeing in Turkey is especially great because of the lack of coping resources. Wage levels for urban workers are generally low and most do not have savings or other financial assets to rely on during hard times (Erdogan 2002; Sönmez 2002; Tunali 2003). Furthermore, Turkey’s welfare state is underdeveloped by western standards. The programs most needed during cyclical downturns—unemployment insurance and income assistance—have restricted eligibility and are

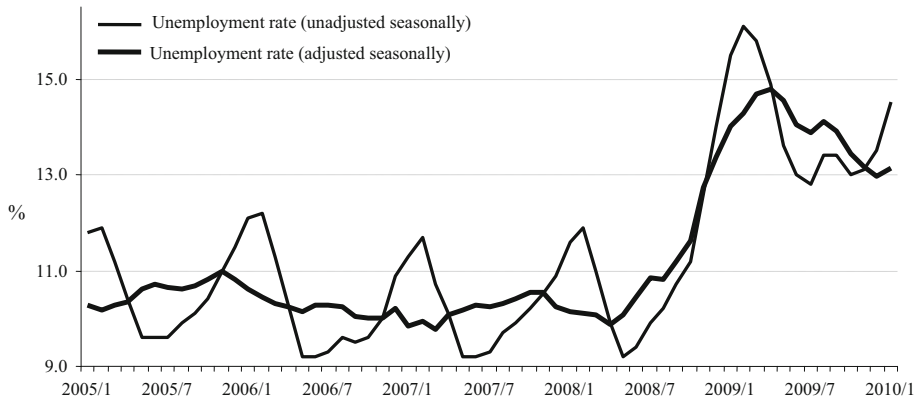


Fig. 1 Unemployment rate in Turkey, 2005–2010 (%). *Source* Turkstat (2011). Turkish Statistical Institute, Household Labor Force Research Press Release, No. 228, November 15, 2011

chronically underfunded. Few of the needy receive help and, for those that do, benefit levels are minimal (Buğra and Keyder 2003). Although informal social support, mostly from the extended family, is often mobilized during hard times, family support systems in urban areas have weakened in recent times and were stretched especially thin when crises impact multiple households within extended families (Şenses 2003). With Turkish families relying primarily on income from work, the impact of rising unemployment, declining real wages, and currency collapse can quickly undermine family finances, a factor directly linked to increased marital problems (Kwon et al. 2003; Conger et al. 1990; Aytacı and Rankin 2009).

Turkish family stress processes are also influenced by the gendering of work and family life. In contrast to their western counterparts, most urban married couple households in Turkey are single earner, the vast majority of which are men. Only about 19 % of urban women were in the labor force at the time of the crisis (Turkstat 2008). The gendered nature of paid work is rooted in a more patriarchal culture, where men are still perceived as the main breadwinner, with women responsible for caregiving and homemaking (Eyüboğlu et al. 1998; İlkaracan 1998). Given the low levels of dual-earner couples in Turkey, employment and earnings instability of the breadwinner can quickly become a serious threat to family and individual wellbeing.

Our goal is to provide a comprehensive analysis of the impact of the 2008 global economic crisis on individuals, households and the neighborhoods they live in. Earlier work on the impact of the social consequences of the 2001 economic crisis in Turkey showed the social distribution of economic hardship, its' effects on marriage and the emotional and physical health of urban married couples (Aytacı and Rankin 2009; Aytacı and Rankin 2008; Erdoğan 2002; Sönmez 2002; Şenses 2003; Öniş 2003; Tunali 2003). These earlier results provide valuable baseline information in Turkey on the social consequences of economic crisis on married couples during the 2001 economic crisis.

We take the previous research a step further to analyze the social impact of the 2008 global economic crisis at the neighborhood level, the household level and the individual level. In doing so, we hope to understand the potentially wider social impact of the economic crisis and hope that our results will provide a more complete understanding of the social forces affecting neighborhoods, families, and individuals in times of challenging economic circumstances, providing valuable information for academicians and social policy makers alike.

4 Methods

4.1 Data and Sample

The survey data come from the “The Social and Psychological Impact of Economic Conditions: short-term and long-term effects”, a study of the social consequences of the 2008 global economic crisis in Turkey. The survey consists of 1,100 urban married couple households, where the interviewed spouse is between the ages of 21 and 58, the age group of active employment at the time of the crisis (i.e., 18–55 years old). Fieldwork was conducted during April and July 2011 by Yönelim Araştırma, a Turkish scientific and academic research company.

In-home face-to-face interviews were conducted because of low levels of education and functional literacy among low income households. Since the interviews were conducted two-and-a half years after the onset of the crisis, the information on families’ circumstances before the economic crisis was gathered retrospectively. Given the severity of the economic crisis, recall problems should be minimal (Tekcan 2006).

The sample is a multi-phased, stratified, random cluster sample with a 95 % confidence interval and a 2.8 % margin of error. It was designed to be nationally representative of married couple households residing in urban areas of different size, levels of development, and regions. Urban areas were defined as settlements with population of 20,000 or more based on figures from the 2000 Population Census. The stratification scheme included five population strata and three regions. The interviews were allocated to be proportional to the population distribution within each cell of the matrix. To improve the chances that the 19 selected cities would be representative of cities at various levels of development, cities were sorted using the State Planning Office’s development index prior to systematic random sampling.

One hundred and ten neighborhoods were selected using systematic random sampling, such that the number of neighborhoods was proportionate to the population size of the city and district, the latter of which was based on a district-level list of registered voters in 2009 local elections, since the election statistics were the only published population data at neighborhood level in Turkey at the time. To ensure a sample representative of a range of neighborhood socioeconomic statuses, neighborhoods within each district were first ranked according to land value using the Finance Ministry’s Land Value 2010 Database prior to selection.

From a list of neighborhood streets, three streets per neighborhood were selected using a simple random sample. These streets represent the place where clusters were to be completed. Cluster sampling is common in countries such as Turkey, where no household lists are available for random sampling. They have the further advantage of reducing survey costs, especially when face-to-face interviews are required. A maximum of three visits to complete an interview were allowed. If a cluster remained incomplete at the end of three visits, the interviewer would move to the next street to complete the remainder of the cluster. Since the sampling elements (i.e., urban married couple households) have an equal probability of being selected and clusters are equal sized, the sample is self-weighting (Babbie 1973).

4.2 Measures

The information on neighborhoods was obtained from “muhtars” (i.e., neighborhood headperson). The neighborhood muhtar interviews provide information on aggregate

neighborhood characteristics. Muhtars are key informants who have extensive knowledge about conditions in their neighborhoods as they are the record keeper for many official administrative records (e.g., marriages, divorces, school transfers, residential mobility, death records, and poverty certificates). Muhtars are commonly used for obtaining information on neighborhoods in Turkey.

4.3 Neighborhood Level

4.3.1 Neighborhood Social Problems

A series of questions were asked to muhtars regarding neighborhood social problems. First, we asked them “To what extent is unemployment a problem in your neighborhood?” The responses ranged from (1) no opinion, (2) not a problem, (3) somewhat of a problem, (4) a serious problem. The same question format was repeated for lack of job opportunities, workplace closures, poverty, hunger, theft/robbery/crime, homelessness, divorce, and child employment. For all these social problems listed above, we also asked muhtars whether these social problems in their neighborhoods ‘increased’, ‘remained the same’ or ‘decreased’ since the economic crisis.

4.4 Household Level

Household *economic strain* is measured as a latent construct using four indicators: (1) difficulty paying bills (1 = no, 2 = some, and 3 = a lot); (2) financial circumstances at the end of the month (1 = some money left after covering monthly expenses, 2 = only had enough money to cover monthly expenses, and 3 = were not able to cover monthly expenses); and (3) how often household adults reduced food consumption (responses ranged from 1 = never through 5 = always), and how often household childrens’ food consumption was reduced based on the same response categories. Since the items are scaled differently, they were first standardized and then summed, and then restandardized. The Chronbach’s α for the economic strain scale is .86.

The *coping strategies index* was constructed by summing across 23 different types of coping strategies respondents used in the two and half years since the 2008 crisis (see Table 4 for a list of the constituent items). The Chronbach’s α for the coping strategies index is .73.

4.4.1 Household Savings and Debt

Three questions were asked about household savings and debt before and after the crisis—whether they had any savings, whether they had savings equal to 2 months or more expenses, and whether they had any debt (for each, 1 = yes, 0 = no).

4.5 Individual Level Outcome Variables

4.5.1 Perceived Stress

We construct a perceived stress index using four items similar to those used by others (see Cohen et al. 1983 and Conger et al. 1999). The questions pertain to the frequency respondents reported feeling unable to control the important things in their life, confident about their ability to handle personal problems, that things were going their way, and that they could not overcome difficulties in their life. Each used a five-category response codes (1 = never, 5 = always).

Responses to the questions regarding confidence in ability and ability to handle personal problems were recoded, such that higher scores indicate greater stress, and all four stress items were then summed. The Chronbach's α for the perceived stress index is .92.

4.5.2 Depression

Depression is measured by the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff 1979). The CES-D is a 20-item scale that is designed to measure depression in the general population. It measures the current level of depressive symptoms with emphasis on depressed mood. The items' response codes ranged from 1 to 4 (1 = never, 4 = always) and were summed. The Chronbach's α for the CESD scale is .89.

4.5.3 Physical Health Problems

Respondents were asked if they experienced any of the following health problems that are commonly reported in the general media in relation to health-related outcomes of the economic crisis: (a) headaches; (b) upset stomach; (c) trouble sleeping; (d) high blood pressure and (e) rapid heart rate/difficulty breathing. The response codes ranged from 1 to 5 (1 = never, 5 = always). The Chronbach's α for the physical health scale is .79.

4.6 Individual Level Economic Hardship Variables

4.6.1 Husband Job Loss

Job loss is a dichotomous measure, where 1 = lost job in the two and half years since the economic crisis, 0 = no job loss.

4.6.2 Husband Months Unemployed

For husbands who experienced a job loss in the two and half years since the economic crisis hit, we asked the total number of months they were unemployed.

4.6.3 Reduced Earnings

If husbands received reduced earnings following the crisis, coded 1 = yes; 0 = no.

4.6.4 Underemployment

If husbands report working less hours than they desired or worked in a job outside of their field, coded 1 = yes; 0 = no.

4.7 Sociodemographic Variables

4.7.1 Household Income

Income is measured using the natural logarithm of the total net monthly household income in Turkish Lira. At the time of the survey, the exchange rate for one pound was approximately 2.62 Turkish Lira.

Rent. An indicator is used to identify those who pay rent for their residence versus those who own or live in a place where they pay no rent (e.g., property owned by a relative or employer-provided housing).

4.7.2 Husband Age

Husband's age is measured in number of years.

4.7.3 Kurdish Ethnicity

Turkey's largest ethnic group is identified by whether respondents speak Kurdish in the household.

4.7.4 Dependents

The number of dependents is measured as the total number of residing household members who were not employed at the time of the survey. See "[Appendix](#)" for sample descriptives.

5 Results

We begin our analysis by first examining the impact of the economic crisis on neighborhood social problems and whether they have intensified due to the crisis. Next, we focus on how households are affected by the economic crisis and coping strategies they employ. Finally, we examine how individual mental and physical health and wellbeing are affected by the crisis.

5.1 Impact on Neighborhoods

Table 1 shows the perception of key local administrative informants (i.e., neighborhood muhtars) of neighborhood social problems (Column 1) and whether they have increased since the crisis (Column 2). In more than half of the neighborhoods, muhtars report unemployment and lack of job opportunities as a serious problem in their neighborhoods

Table 1 Neighborhood social problems and percent increased since the crisis as reported by neighborhood headperson (N = 110 neighborhoods)

	Serious problem (%)	Increased since the crisis (%)
Unemployment	51	41.6
Lack of job opportunities	52.3	44.2
Job closures	33	41.9
Poverty	41.1	39.1
Hunger	18.3	38.1
Theft, robbery/crime	31.1	47.3
Homelessness	14.4	42.4
Divorce	35.6	54.5
Child employment	16.7	53.1

(51 and 52 %, respectively), while 41 % report poverty as a serious problem. Large numbers of muhtars (ranging from 39 to 44 percent) report that these social problems increased since the economic crisis. The neighborhood social problems that had the highest increase due to the economic crisis were divorces (55 %), child labor (53 %), theft, robbery and crime (47 %), lack of job opportunities (44 %), job closures (42 %), homelessness (42 %), poverty (39 %) and hunger (38 %). Overall, these results are consistent with earlier research reporting increased neighborhood social problems in the aftermath of economic crises.

5.2 Impact on Households

In order to assess the effect of 2008 global economic crisis on households, we focus on the labor market experiences of husbands, typically the primary or sole breadwinner of Turkish households. In the two and half years following the global economic crisis, 16 % of husbands lost their jobs, and a very large number (82 %) attributed the loss of their job to economic crisis (see Table 2). On average, those who lost their jobs remained unemployed for 11 months. More than half (52 %) report receiving reduced earnings and 84 % related this to the economic crisis. Finally, a quarter of those who were in the labor force reported being underemployed due to the crisis (80 %).

The above adverse labor market experiences of household breadwinners were not distributed evenly across the population, as significant differences by education, age, and ethnicity are observed. Twice as many primary school or less educated husbands lost jobs and they were unemployed an average of four additional months, compared to college graduates. Twice as many had reduced earnings and three times as many were underemployed. Even so, the college educated were also affected by the crisis—10 % lost jobs, remaining unemployed for an average of nearly 8 months. Thirty percent had reduced earnings and 11 % reported being underemployed.

Turning to age differences, those above 50 years of age had the longest unemployment duration, perhaps due to their being more selective in where they applied for jobs and also employer preferences for hiring younger workers at lower pay rates. Unemployment duration for those in their twenties was considerably lower than the 50 and older age group (8 vs. 14 months). Kurdish speaking and non-Kurdish speaking experienced similar levels of job loss during the economic crisis. Although this may seem counterintuitive as one would expect disadvantaged groups to be the first to lose their jobs, this is mostly due to the lower levels of labor force participation among Kurdish speaking in Turkey to begin with. There are fewer Kurdish speaking in the formal labor market who are in the position to lose a job than non-Kurdish speaking. The disadvantaged position of Kurdish speaking is most noticeable among those who are unemployed and underemployed. Kurdish-speaking respondents experience on average, two and a half additional months of unemployment and nearly twice as many are underemployed. Typically the informal sector absorbs the unemployed during crises and increases the amount of underemployment (Fiszbien et al. 2002; Moser 1996; Sussangkarn et al. 1999; World Bank 2001).

Turning to how household finances were affected by the crisis, Table 3 provides information on household finances before the economic crisis (Column 1) and after the economic crisis (Column 2). Before the economic crisis, 28 % of the households were able to save money, after the crisis only around 17 % were able to do so. When we asked respondents whether they had enough savings to live on for 2 months if needed, 29 % of households had 2 months worth of savings before the economic crisis, dropping to 21 % after the crisis. The fact that only about one in five households had savings enough to cover

Table 2 Economic hardship of labor force participants (husbands) by socio-demographic characteristics

	Job loss (%)	Unemployment duration (months) ^a	Reduced earnings (%)	Under-employment (%)
Total	16	11.06	52	26
Due to economic crisis	82	–	84	80
Education				
Primary school or less	21	11.81	62	36
Junior high school	17	11.42	57	25
High school	11	9.12	42	16
College	10	7.83	30	11
Age				
18–29	15 ^{ns}	8	52 ^{ns}	21 ^{ns}
30–39	14	10	48	22
40–49	20	11.68	57	29
50 and above	15	13.56	48	30
Kurdish speaking				
No	16 ^{ns}	10.56	50 ^{ns}	23
Yes	14	12.90	59	41
N	925	232	923	924

Group differences are statistically significant unless noted

^a Figures are based on the subsample of individuals who reported losing a job during the last two and a half years

^{ns} ANOVA *F* test of group differences are not statistically significant at the $p < .05$ level

living expenses for 2 months is especially troublesome in Turkey due to limited social assistance programs and benefits. As a result, more than half of the households reported being in debt (53 %) after the crisis, compared to only 30 % prior to the economic crisis.

Turning to how households coped with the economic crisis, Table 4 shows items for each type of coping strategy used by households (Column 1) and the percent due to the economic crisis (Column 2). Not surprisingly, the most commonly used household strategies were various types of consumption reduction. On average 29–59 % of households made use of one or more consumption reduction strategy and for around 80 % the respondents attributed this to the economic crisis. The most common labor market strategy, seen in 25 % of the households, was wives' starting to work for the first time. Less common, but ones that would have more impact on the family life, were changing family residence to move to a cheaper place (13 %) and postponing childbearing (8 %) due to the crisis (69 %). Furthermore around 23 % of households sold assets, 16 % sold or exchanged their car for a cheaper model due to the crisis (79 %), and 23 % report having increased debt due to crisis (69 %).

Table 5 presents the multivariate regression analysis showing what factors are associated with the index of coping strategies as a whole (Column 1) and broken down by coping types (Columns 2–5). Preliminary analyses indicated that ordinary least-squares were appropriate for the coping strategies index and the consumption reduction subtype as they had ranges large enough to be considered continuous and were normally distributed. The other coping types, which had smaller ranges, were recoded as binary variables, either “not used” (0) or “used” (1), and analyzed using logistic regression.

Table 3 Household finances before and after 2008 global economic crisis

	Before crisis (%)	After crisis (%)
Had household savings	27.8	16.8
Had household savings equal to 2 months expenses	28.9	20.6
Had household debt	30.0	52.6

Table 4 Coping strategies of urban households and attribution to the 2008 economic crisis (N = 1100)

	% Using coping strategy	% Due to economic crisis
Labor market strategies		
Husband worked more than one job	12.1	79.8
Husband first time job	9.3	72.0
Wife worked more than one job	7.2	61.5
Wife first time job	25.4	72.1
Child started working for money ^a	3.9	88.6
Child household work increased ^a	4.0	55.6
Family structure/composition changes		
Moved to cheaper housing	13.3	71.3
Moved in with relatives	3.0	76.1
Relative moved away in search of work	6.1	73.3
Postponed childbearing	8.1	68.7
Consumption expenditure decisions		
Cut back on vacations	48.3	79.8
Cut back on visits to relatives	39.4	82.2
Cut back on purchase of new clothes	57.6	80.3
Switched to cheaper foods	52.8	82
Consumed less meat	58.9	82.2
Cut back on going out (restaurant, theatre, etc.)	40.3	81.2
Bought fewer books, CDs, videos, etc.	34.7	83.4
Switched to cheaper household goods	52.6	82
Cancellation of internet, phone or cable	28.8	79.2
Cut back on transportation costs	42.6	83.6
Asset liquidation and increasing debt		
Sold assets to cover living expenses	22.5	–
Sold or traded in car for cheaper model	16.2	78.7
Debt increased	23.2	69.1

^a The number of families with a child (i.e., aged 8–17 years old) is 453

The figures in Column 1 show that, in households where the breadwinner experienced economic hardship (i.e., job loss, reduced earnings or underemployment), significantly more coping strategies were used by the household ($R^2 = .32$). Older respondents, renters, and lower income households also used more coping strategies. Turning to specific types of coping, the likelihood of using a labor market strategy is higher among respondents who

were unemployed longer, had reduced earnings, or were underemployed (Column 2). The increased likelihood of utilizing a family structure strategy was found in lower income and renter households and those experiencing reduced earnings from the husband's job (Column 3). Households with older breadwinners, lower income and renters, and where breadwinners experienced economic hardship used more consumption reduction strategies (Column 4, $R^2 = .22$). Furthermore, the likelihood of having to take on more debt or liquidate assets increased with husband's age, lower income, and among those households where the husband lost a job or had reduced earnings (Column 5).

5.3 Impact on Individuals

Lastly, we are interested in the impact of the 2008 global economic crisis on individual wellbeing. In particular we focus on stress, physical health, and depression, which we analyze using block multivariate regression (see Table 6). For all outcomes, the first block enters economic hardship variables and socio-demographic factors, the second block adds the coping strategies index and the third block adds the economic strain index. In all three stress model steps, Kurdish speakers are significantly more stressed than non-Kurdish speakers. Moreover, the underemployed and those who have reduced earnings are significantly more stressed. This relationship remains significant even after introducing coping strategies (model 2) and economic strain (model 3). The greater the number of coping strategies used, the more stressed the husbands are ($R^2 = .25$). However, husbands are significantly more stressed if they are experiencing economic strain in the household (such as not having enough money to cover expenses) ($R^2 = .36$). In the last block, where we include economic strain experienced in the household, coping strategies is no longer significant, suggesting that coping strategies that economic strain induces do not create additional stress. Interestingly, income is associated with greater stress. We speculate that the more affluent are more stressed because they have more resources to lose by a prolonged economic crisis than the less affluent.

Next, we are interested in whether individual depression can be linked to the hardship brought on by the economic crisis. The first column for the CESD index shows that the underemployed and those who had reduced earnings were significantly more depressed, together with Kurdish respondents. Older individuals and those in lower income households were also significantly more depressed ($R^2 = .16$). All the previous significant relationships remained even after coping strategies was introduced. Use of greater number of coping strategies also led to higher depression ($R^2 = .20$), as well as experiencing economic strain in the household ($R^2 = .27$). Greater use of coping strategies also contributes to depression, independent of economic strain.

Physical health is also affected by economic hardship—those who had reduced earnings or were underemployed report more health problems, net of all other socio-demographic factors ($R^2 = .18$). Kurdish respondents and renters also report having more health problems. In times of crisis, having to make a big payment regularly every month may be contributing to sleep problems, stomach problems, high blood pressures, headaches, and so on. Not surprisingly, older individuals and those in lower income households also have more physical health problems.

The second block shows that coping strategies has a significant effect on physical health problems ($R^2 = .20$) and, in the final block, remains significant—albeit a smaller effect—even when controlling for economic strain ($R^2 = .24$). As with the unexpected income-stress relationship, income is associated with higher levels of health problems. Having more income may increase the likelihood of reporting health problems if income is also

Table 5 Multivariate analysis of the impact of 2008 global economic crisis on household coping strategies

	Coping strategies		Labor market strategies		Family structure strategies		Consumption reduction		Debt and/or asset liquidation	
	b ^a	OR ^b	OR ^b	OR	OR	b	OR	OR		
Constant	9.020***	.619		3.351		6.301***		1.469		
Husband age	.047***	1.003		1.004		.032***		1.028***		
High school	.163	.968		1.349		-.050		1.190		
College	-.427	.636		1.124		-.431		.917		
Renter	.760***	1.168		2.572***		.357**		1.267		
Dependents	.121	1.069		.973		.070		1.063		
Household income (Ln)	-1.084***	.780		.603**		-.689***		.672**		
Kurdish	.677	.962		1.187		.137		1.297		
Lost job	1.229***	1.329		1.464		.549**		1.830**		
Reduced earnings	1.245***	3.028***		2.197***		.520***		1.771**		
Underemployed	1.047***	1.956***		1.011		.618***		1.356		
Unemployment duration	.039	1.053**		.996		-.002		1.015		
Nagelkerke R ²		.26		.14				.16		
R ²						.22				

* $p < .05$; ** $p < .01$; *** $p < .001$

^a OLS regression unstandardized coefficient

^b Logistic regression odds ratio

Table 6 Blocked OLS multivariate regression analysis on the impact of the 2008 global economic crisis on individual stress, depression and health

	Stress			Depression			Physical health		
	b	b	b	b	b	b	b	b	
Constant	5.75***	3.20*	.510	40.75***	34.72***	29.41***	.968	-.882	-2.534
Husband age	.045***	.032*	.010	.135***	.104**	.063	.099***	.089***	.076***
High school	-.129	-.179	.042	1.054	.956	1.403*	.069	.041	.163
College	-.412	-.291	-.059	-.598	-.285	.157	-.178	-.101	.048
Renter	.323	.115	-.232	.889	.369	-.330	.898***	.736**	.524*
Dependents	-.050	-.085	-.151*	-.298	-.389	-.497*	.042	.015	-.025
HH income (Ln)	-.139	.166	.880***	-2.288***	-1.564**	-.145	.361	.583*	1.014***
Kurdish	1.176***	.974**	.953**	2.858**	2.378*	2.447**	1.115**	1.013**	.977**
Lost job	.138	-.203	-.152	.691	-.093	-.076	.121	-.134	-.107
Reduced earnings	1.715***	1.352***	1.014***	2.404**	1.577*	.842	1.447***	1.195***	.987***
Underemployed	1.560***	1.262***	1.067***	3.979***	3.269***	2.924***	1.500***	1.269***	1.149***
Unemployment duration	.027	.016	-.011	.028	.007	-.044	.000	-.008	-.024
Coping strategies	-	.283***	.074	-	.669***	.229*	-	.226***	.097*
Economic strain	-	-	1.793***	-	-	3.612***	-	-	1.071***
R ²	.20	.25	.36	.16	.20	.27	.18	.20	.24

* $p < .05$; ** $p < .01$; *** $p < .001$

associated with greater awareness of health issues and more regular access to medical services.

To summarize, our results are supportive of family stress model. Economic hardship in the wake of the 2008 global economic crisis has a significant adverse affect on individual wellbeing, as can be seen in elevated stress levels, physical health problems, and depression. The use of coping strategies, such as moving to cheaper residence and changing consumption patterns also has a negative impact on individual wellbeing, especially for depression and physical health. Finally, being economically strained, (i.e., not being able to pay bills, not having enough money at the end of the month, or having to cut down on meals) is a significant source of stress, depression, and physical health problems.

6 Summary and Discussion

There is a great need to better understand the causal chain linking aggregate macroeconomic shocks and their effects on community, family and individual life experiences. Our goal in this research paper is to provide some empirical evidence on the social impact of 2008 global economic crisis in Turkey. Using nationally representative data on urban neighborhoods and families, we investigate to what extent the 2008 global economic crisis is also a social crisis. Since the social impact of economic crisis can be felt at various levels, we address this question at three levels: the neighborhood, household, and the individual.

Overall, similar to the Asian and Latin American crises, our results confirm the detrimental effect of the recent global economic crisis at each level. According to our neighborhood informants (i.e., muhtars), serious neighborhood social problems, such as workplace closures, lack of job opportunities, theft/robbery/crime, poverty, homelessness, children's employment, all increased in the wake of the economic crisis. Furthermore, a considerable number of household breadwinners lost their jobs (16 %) in the two and half years prior to the survey, remaining unemployed for nearly a year (11 months) on average. In addition, many workers had a reduction in earnings (52 %) or were underemployed (26 %) during this period. The less educated, Kurdish, and those over 40 years old were unemployed for significantly longer duration. Underemployment was also far more prevalent among the Kurdish and less educated. Moreover, families in Turkey entered the crisis with very limited resources to buffer the effects of the crisis, as less than one third had any savings to live on for 2 months. As a result, the prevalence of those in debt nearly doubled in the two and a half years following the onset of the economic crisis.

Households tried to cope with the crisis in various ways, including the use of labor market strategies, making changes in family residences, cutting down on consumption, selling assets or borrowing money. Most common were consumption reduction strategies, which can be implemented quickly, most of which are not a major threat to family wellbeing. Not surprisingly, more strategies were used by households that experienced economic hardship, especially unemployment, reduced earnings, and underemployment. Longer periods of breadwinner unemployment were associated with efforts to increase earnings from work (e.g., additional jobs, using female and child labor). In addition, higher levels of coping are found among those with fewer financial resources in the form of lower income and those with higher housing costs (i.e., renters).

Our results clearly show the adverse effects of the economic crisis on individual wellbeing. Those who experienced economic hardship and strain reported having higher

levels of stress, physical health problems and depressive symptoms. In addition, we also found evidence of the secondary effects of coping on mental and physical health. Net of household economic strain, the number of household adjustments employed to cope with the crisis was positively associated with higher depression levels and greater physical health problems. As such, strategies, which may be necessary for coping with household financial and material shortfalls during crises, come at a cost to personal wellbeing.

Finally, all three health outcomes were worse for those of Kurdish ethnicity, net of all other factors. Data limitations prevent us from exploring possible explanations for this finding, but it appears that being an ethnic minority in Turkey may have health consequences above and beyond those associated with increased risk of economic hardship.

The global economic crisis that hit many countries in the early fall of 2008 has been a topic of debate and discussion for economists for the last several years, while its social impact has not received the attention it deserves. We have shown that this crisis, and the ensuing spread of economic hardship and household adjustments required to weather it, directly affect the lives of urban families. While we have focused on husbands and wives, more research is needed on how crises affect different family members, particularly children. Moreover, being unemployed, having reduced income or working hours can lead to lower quality of life for household members, not only in the short term, but for many years to come, possibly having lifelong ramifications for them and for their families. Similarly, we have shown that household coping strategies can have negative health consequences; however, some, such as cutting back on luxury items, are easily implemented and sacrifice little, whereas others (e.g., liquidating assets, taking on more debt, putting a child to work, or switching to cheaper foods), can have longer term implications for family wellbeing and its future (Thomas and Frankenberg 2005). Future research should address these issues.

Unemployment is especially problematic during economic crises—when large numbers of workplaces close or downsize and a great number of individuals lose their jobs. At these times it becomes even more challenging to find a new job. For many, unemployment or joblessness may initiate a long-term pattern of job instability. If appropriate measures are not taken, the long-term effects may go beyond current generation of workers to affect the future wellbeing of society as a whole.

Given the increasingly frequent occurrence of economic crises and their widespread economic impact on societies (BBC World Service Poll 2009; International Monetary Fund (IMF) 2009; World Bank. 2009; Verick 2009), there is a pressing need to understand the social impact of economic crises. This can be best done by analyzing data on as many societies as possible to have a better and more comprehensive understanding on the social impact of crises. We believe that our results will be of wide interest to academicians, policy-makers, and the general public. We hope that the information provided will assist in the development of more effective crisis policy interventions, especially social security provisions, unemployment benefits, and access to formal sources of in-kind and in-cash aid.

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Appendix

See Table 7.

Table 7 Sample descriptives (N = 1100)

	Min	Max	Mean	SD
Husband age	21	75	41.20	10.11
Husband education				
Less than primary school	0	1	.03	
Primary school	0	1	.43	
Junior high	0	1	.14	
High school	0	1	.31	
College	0	1	.09	
Renter	0	1	.37	
# Of dependents	0	10	2.74	1.50
Logged household income	4.25	9.39	7.17	.60
Kurdish	0	1	.13	
Husband economic hardship				
Lost job	0	1	.16	
# Months unemployment	0	24	2.33	5.47
Reduced earnings	0	1	.51	
Underemployed	0	1	.39	
Economic strain ($\alpha = .86$)	-1.44	3.17	.00	1.00
Coping strategies index (range 0–23; $\alpha = .73$)	0	14	4.65	2.99
Stress ($\alpha = .92$)	4	20	8.01	3.78
Physical health ($\alpha = .79$)	5	25	9.34	3.99
Depression (range 20–72; $\alpha = .89$)	20	80	32.51	9.79

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