

# Economic stress in the workplace: The impact of fear of the crisis on mental health

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## Abstract.

**BACKGROUND:** Since 2008, a deep financial crisis, which started in the United States, has widely spread around the world. Scientists expressed their worry about this crisis by pointing out that potential negative health effects can be created by collective fear and panic.

**OBJECTIVES:** The main purpose of this cross-sectional study on the fear of the crisis has been to examine its impact on mental health through the use of structural equation modeling. In the trial a new model of economic stress we were also interested in identifying if fear of the crisis has an indirect relationship with employees' health (e.g. related to a poor social support or to work-related stress). Furthermore, this study aimed to examine whether a full or a partial mediation model best fits the data.

**METHODS:** Data collection took place between 2010 and 2011. During this period several private organizations that comprised of 1236 employees participated in the study.

**RESULTS:** It was found that social support and job stress fully mediated the relationship between fear of the crisis and health, with all fit indices meeting their respective criteria, and with all path coefficients being significant.

**CONCLUSIONS:** Implications for discussion of the crisis among employees were presented. In conclusion, fear of the crisis appeared to be an important innovative construct for organizational wellbeing.

Keywords: Job insecurity, mental health, economic stress, work-related stress

## 1. Introduction

Since 2008, a deep financial crisis, which started in the United States, has widely spread around the world [1]. In times of crisis, job loss occurs more frequently and finding a new employment becomes more difficult as unemployment rates rise [2]. Literature findings suggest that crisis and recession are accompanied by an increase in mortality and suicide rates [3,4].

Additionally, both a reduction in wages that an increase in unemployment; these phenomena are risk

factors for the development of mental health problems were observed; consequently there was an increase in the use of mental health services by the population [5,6]. Indeed, the perceived financial security is an important component of psychological subjective wellbeing and can result in psychological responses that lead to long-term physical and mental health consequences [7] like distress, depression, anxiety, psychosomatic symptoms and low self-esteem, as suggested by a Paul and Moser's meta-analysis of the mental health consequences of unemployment [6].

Moreover, the uncertainty of the future for employees working in organizations, as well as of the need for adaptation to many potential changes of work aspects could contribute, along with unemployment, to develop depression and mental health diseases [1,3].

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Lastly, during austere times, organizations could focus on survival rather than promoting a healthy work environment [8].

### 1.1. *Fear of the crisis*

Most of the research on economic crisis and subsequent health effects has focused on the role of involuntary job loss and unemployment, and a few have looked at the effects of contracting economic markets on employees [8]. Although employed people might not be severely and adversely influenced by the financial crisis as unemployed people, nevertheless they might alter their attitudes towards work as a result of the perceived negative financial situation that the company or the market is facing [9,10].

Employed people might be more cautious in investing emotionally in the company. Firstly, individuals reduce their commitment at work because of greater financial uncertainties and a reduction in the number of opportunities to receive benefits or advance their careers [11,12]. On the other and we cannot forget that major restructuring, organizational failures, breakdowns and bankruptcy increase the feelings of job insecurity, which relates to the employees' perception about potential involuntary job loss [13]. This could lead to a higher unemployment risk and to potential stress [8].

A proper organizational support such as informing, communicating and backing employees to cope with the magnitude of the problems that are related to the crisis appear of utmost importance [14]. In fact, employees' negative attributions of crisis controllability have emotional and behavioral consequences for organizations [15,16]. Moreover, managers might be reluctant to clearly communicate crisis antecedents and outcomes, which in turn develop in their subordinates a sense of insecurity and stimulate confusing attribution processes [15].

There is evidence that poor employability has general negative effects on workers, such as lower levels of organizational commitment, poorer performance, higher job dissatisfaction, or decreased health and well-being [17].

In addition, the gradual creation of a collective climate of fear and panic can lead to relevant effects of a social nature, particularly evident in the workplace [18]. Indeed, negative emotional responses may be enhanced within social networks of people who have similar concerns: individuals might easily empathize with those who are experiencing similar finan-

cial hardships [11] and consequently, emotion would be easily transmitted.

Therefore, fear of the crisis might stimulate a negative spiral in which people develop their own thoughts, feelings and behavior by influencing and being influenced by the economic environment [19].

Besides, research on organizational membership behaviors suggests that stressful situations affect individuals' pro-social behaviors [20]. Both colleagues and supervisors may be less likely to be pro-social as they may be more preoccupied with their financial situation and their ability to hold on to their jobs and their benefits. In such a situation, social support among the employees might be lower which significantly impacts their stress [21,22].

Finally, workers who experienced the crisis might feel that they did not accomplish anything through their jobs, because the extrinsic rewards might be reduced. The workers might adopt an ambiguous view of their role, or perceive that hard work is more stressful because it did not allow them to reap beneficial rewards [11].

### 1.2. *Model development*

Following the above discussion, we developed the following theoretical model (see Fig. 1).

A development of fear of the crisis seems interesting and innovative in the literature. Firstly, in light of evidence from the literature we considered weak employability and fear of the company crisis as the determinants of the innovative construct fear of the crisis. We hypothesized that individuals who doubt their employability and the company solidity will perceive the crisis to be more threatening and destabilizing. In addition, the model not only aims to evaluate determinants of fear of the crisis, but also the consequences. Indeed, we hypothesized that fear of the crisis is connected to mental health. In our model, we position social support and stress as mediators.

In particular, we suppose a total mediation of social support, rather than a partial one. Indeed, fear of the crisis might not be necessarily associated with high job demands, which is a highly important stress factor. As noted earlier, employees who are afraid of the crisis might perceive less work rather than overload.

As far as the stress mediation is concerned, we hypothesized a total mediation. In time of crisis individuals might be less cooperative and consequently, the expectations of support by other employees might be lower. Subsequently, the scarce support received by

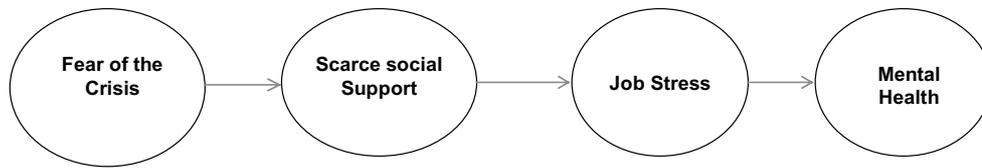


Fig. 1. The proposed theoretical model.

colleagues and supervisors might have an indirect effect on their mental health, especially in the short term.

To summarize, according to the literature review, fear of the crisis might influence social relationships, which in turn affect the job stress, particularly in terms of job demand and role ambiguity. Finally, job stress might be associated with mental health problems.

### 1.3. Aim

The aim of this study was to examine its impact of fear of the economic crisis on mental health. We were also interested in identifying whether fear of the crisis has an indirect relationship with health through social support and stress of the work environment. The present study sought to further test whether full or a partial mediations models best fit the data. Briefly, there were six hypotheses: (1) fear of the crisis will be positively associated with poor social support; (2) poor social support will be positively associated with work-related stress; (3) work-related stress will be positively associated with bad health; (4) a total mediation model which allows for indirect effects of fear of the crisis on stress and health will best fit the data; (5) poor social support will mediate the effect of fear of the crisis on stress; (6) stress will mediate the effects of poor social support on health.

## 2. Subjects and method

Data collection took place between 2010 and 2011. During this period several organizations that comprised of 1,236 employees participated voluntarily in the study (see Table 1).

Organizations were suitably invited to participate in a stress assessment not only for research purposes but also to fulfill the Italian main law on protecting safety and health of workers (Legislative Decree 81/2008 and subsequent amendments) which requires organizations to measure work-related stress. The human resource departments and the health and safety offices of 27 organizations, agreed to carry out the research. Compa-

nies all worked in the field of home furniture and were spread around Italy with a higher prevalence in the centre of Italy. 4 out of 27 companies were small ( $N < 20$ ) whereas the rest of the companies were medium ( $N > 20$ ). All the population of small companies was sampled, whereas for medium companies a stratified sampling taking into consideration main job functions was applied aiming to reach at the least the 50% of the organizational population.

Data were collected through paper-and-pencil questionnaires during working hours in rooms provided by the organizations. Participants were informed that their responses were anonymous and that completing the questionnaires would take about 30 minutes, although no time limit was imposed. The mean response rate was satisfactory (78%, ranging from 65% to 94%). The survey was administered on site by the staff of the organizations and by psychologists. Out of the respondents 55.8% were male ( $N = 690$ ) and 44.2% were female ( $N = 546$ ).

Demographic data on the number of years in employment of the companies was collected; 77.4% of the participants had worked from 0 to 7 years and 22.6% of participants had worked for more than 7 years.

The majority of employees (79.5%) had a permanent position and a full time job (81.5%) and 20.5% had a temporary position and 18.5% had a part time job.

Finally, the sample included 26.1% of manual workers and 73.9% of white collar and blue collar employees; the breakdown between white and blue collar employees is not available because companies didn't provide us these data.

A note should be made on the context in which this study took place, given that this context was relevant to the central questions in the study. The Lehman Brothers collapse in September 2008 revealed the seriousness of the crisis and it represents the starting point of the economic emergency for Italy. Italy's economic and political situation recently gained widespread attention in the midst of the sovereign debt crisis [23]. Global stock markets responded with precipitous declines and several sectors, including home furniture, reported a clear decrease of sales [24].

Table 1  
General description of the sample across participating organizations (N = 1236)

Type of company	Participants	Sample
1. Holding	52	Stratified
2. Administration	6	Total
3. Store and goods deposit	59	Stratified
4. Store and good deposit	55	Stratified
5. Store and goods deposit	43	Stratified
6. Store and goods deposit	62	Stratified
7. Administration	17	Total
8. Store and goods deposit	92	Stratified
9. Store and goods deposit	34	Stratified
10. Store, goods deposit and administration	32	Stratified
11. Store and goods deposit	41	Stratified
12. Store and goods deposit	36	Stratified
13. Stores (two locations)	82	Stratified
14. Store	14	Total
15. Store and goods deposit	42	Stratified
16. Store and goods deposit	52	Stratified
17. Stores and one good deposit (two locations)	74	Stratified
18. Administration	51	Stratified
19. Administration	9	Total
20. Store and goods deposit	37	Stratified
21. Store and goods deposit	37	Stratified
22. Store and goods deposit	39	Stratified
23. Store and goods deposit	49	Stratified
24. Store and goods deposit	60	Stratified
25. Store and goods deposit	38	Stratified
26. Store and goods deposit	52	Stratified
27. Store and goods deposit	71	Stratified
Total	1,236	

## 2.1. Instruments

*The General Health Questionnaire (GHQ-12)*. The scale asks whether the respondent has experienced a particular symptom or behavior related to general psychological health recently. Each of the 12 item is rated on a four-point scale (less than usual, no more than usual, rather more than usual, or much more than usual) and it gives a total score of 12 or 36 on the basis of the scoring method selected. Six of the items are positively worded; the other six are negatively worded. The customary type of scores used are a bimodal scale (0-0-1-1) and a 4-point Likert-type scale (0-1-2-3); there is evidence to suggest that the latter allows better discrimination between competing models in confirmatory factor analyses of the GHQ-12 and was used for this study. A higher score indicates a greater degree of psychological distress. The version of the GHQ-12 that was translated in Italy by Fracaro and colleagues [25] was used in this investigation. Three GHQ-12 scales were also computed: loss of confidence, anxiety and depression and social dysfunction.

*Stress Questionnaire (SQ)*. The Stress Questionnaire was developed by Giorgi et al. [9] and was used to

assess stress factors identified in analytic research. 1) role conflict – employees don't have awareness of their roles and responsibilities (5 items; e.g., "I have a clear idea about what is expected of me at work"); 2) colleagues support- the lack of collaboration and support among employees (5 items; e.g., "I get support I need from colleagues"); 3) supervisor support – the extent to which employees experience difficulties in receiving support and understanding from their supervisors or leaders (4 items; e.g., "My supervisor energizes me at work"); 4) job demand – refer to quantitative demanding aspects of the job (6 item ; e.g., "I have unrealistic deadlines"); 5) non employability – employees perceive that their working competencies don't permit them to acquire another job (5 item e.g., "I couldn't find another job"), 6) crisis – employees perceive that the organizations are suffering from the economic crisis (5 item e.g. "my company is stable although there is an economic crisis").

The SQ is composed by 30-items and job stressors were assessed in a 5 point Likert scale (from 1 = "strongly agree" to 5 = "strongly disagree"); higher scores indicate a greater degree of work-related problems.

Giorgi et al. reported SQ factors internal consistency estimates above 0.70 for a large employees sample. To

Table 2  
Means, standard deviations, alpha and correlations among variables

Variable	M	SD	Alpha	1	2	3	4	5	6	7	8	9	10	11	12
1 Job position	1.8	0.40		-0.16**	0.00	0.40**	0.00	-0.01	-0.16**	0.07*	0.00	-0.03	-0.11**	0.11**	
2 Working time	1.2	0.38			-	-0.28**	0.19**	-0.02	-0.17**	-0.10**	-0.10**	-0.10**	-0.12**	-0.04	-0.08**
3 Working status	1.2	0.42				-	0.44**	0.46**	0.34**	0.41**	-0.20**	0.55**	0.35**	0.44**	0.44**
4 Gender	1.4	0.50					-	0.01	0.01	-0.03	-0.03	0.06*	0.12**	-0.03	0.20**
5 Seniority	1.2	0.45						-	-0.06*	-0.02	-0.05	0.02	0.05	-0.06*	-0.05
6 Job demand	3	0.73	0.71							0.20**	0.24**	0.37**	0.00	0.26**	0.41**
7 Colleagues support	2.2	0.68	0.73								-	0.32**	0.35**	0.20**	0.37**
8 Role	2.3	0.75	0.72									-	0.39**	0.15**	0.34**
9 Supervisor Support	2.3	0.88	0.85										-	0.12**	0.34**
10 Crisis	2.6	0.73	0.75											-	0.31**
11 Employability	2.2	0.70	0.73												-
12 Mental health - GHQ-12	10	5.33	0.85												

\*Correlation is significant at the 0.05 level. \*\*Correlation is significant at the 0.01 level.

examine the SQ validity Giorgi et al. conducted Confirmatory Factor Analysis (CFA). The authors report that there was support for stress measure. However, a complete account of the theoretical and empirical development of the SQ is available in Giorgi et al. [26].

### 3. Results

Different analyses were conducted. Firstly, the reliability of each variable is shown in the Table 2 through the means of their Cronbach's alpha value.

Secondly, we explored the correlations between the Stress Questionnaire and the GHQ-12. As expected, correlations of the stress factors with GHQ were positive and significant ( $p < 0.01$ ). In addition, stress factors were correlated except for the relationship between crisis and workload (see Table 2).

Independent  $t$  tests were then performed to compare the scores of crisis and employability with demographics. Results suggested that manual workers ( $M = 2.36$ ;  $SD = 0.71$ ) perceived more employability than employees ( $M = 2.18$ ;  $SD = .70$ ;  $t(1217) = 4.0$ ;  $p < 0.01$ ), whereas a difference in employability for other demographics was not found. As far as crisis is concerned, women ( $M = 2.70$ ;  $SD = 0.73$ ) were more scared by the crisis ( $t(1182) = 5.2$ ,  $p < 0.01$ ) than men ( $M = 2.46$ ;  $SD = 0.72$ ). In addition, part-time employees ( $M = 2.51$ ;  $SD = 0.74$ ) reported less fear of the crisis than full-time ( $t(1019) = 3.8$ ,  $p < 0.01$  -  $M = 2.75$ ;  $SD = 0.75$ ), whereas temporary workers ( $M = 2.68$ ;  $SD = 0.76$ ) were more scared by the crisis than permanent workers ( $t(1218) = 2.2$ ,  $p < 0.05$  -  $M = 2.55$ ;  $SD = 0.72$ ).

In order to explore the validity of the crisis-health model, structural equation modeling was conducted by using maximum likelihood estimation with AMOS 6.0. According to Bollen [27], several indices were used to evaluate the fit of data to the models. Indeed, since several authors have suggested that chi-square has limitations in assessing how well data fits to models in large samples, we considered the following indicators and criteria to assess the model fit: (a) the goodness of fit index ( $GFI \geq 0.90$ ) and the adjust goodness of fit index ( $AGFI \geq 0.90$ ); (b) the comparative fit index ( $CFI \geq 0.90$ ); (c) the root-mean-square error of approximation ( $RMSEA < 0.08$ ) the root mean square residual ( $RMR = 0.05$  or less); and (d) the incremental fit index ( $IFI \geq 0.90$ ).

However, in order to test whether the impact of fear of the crisis on health is fully or partially mediated by social support and stress, additional analyses were carried out. Competitive models of partial mediations were fitted to the data. However, the results from structural equation modeling support the full mediation theoretical model (Fig. 1) ( $p < 0.001$ ). In addition, the inspection of the fit indices which is considered in the present study showed that the theoretical model met the criteria recommended:  $GFI = 0.971$ ,  $AGFI = 0.945$ ,  $CFI = 0.941$ ,  $RMSEA = 0.069$ ,  $IFI = 0.94$ . Examination of the path coefficients for the model (Fig. 2) indicated the proposed paths were significant ( $p < 0.001$ ).

The results from structural equation modeling show that the research model fits the data well, hence our hypothesis is supported.

As can be seen in Fig. 2, fear of the crisis is associated with scarce social support ( $\beta = 0.62$ ). Scarce

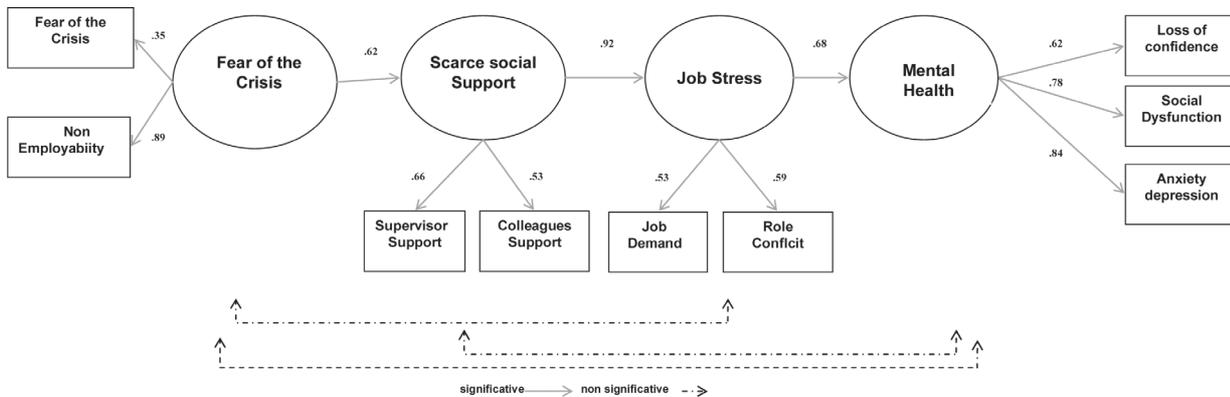


Fig. 2. The proposed structural equation model.

social support is then associated with job stress ( $\beta = 0.92$ ) and fully mediated the fear of the crisis stress relationship. Finally, stress perception is associated with mental health problems ( $\beta = 0.68$ ) and fully mediated the relationship between lack of social support and mental health.

#### 4. Discussion and conclusion

Fear of the crisis in this study appeared to be an important construct for organizational and social well-being. In addition, this study highlighted the importance of employability during austere times. Employability might help employees to feel more secure during the crisis because people who have many alternatives in the labor market may be less affected by job insecurity than those with fewer alternatives [17].

Indeed, the current study researched the mediating role played by poor social support and job stress in the relationship between fear of the crisis and health (see Fig. 2). It was found that both social support and job stress fully mediate the relationship of fear of the crisis with health, with all fit indices meeting their respective criteria, and with all path coefficients being significant ( $p < 0.001$ ).

The fact that the alternative models with its assumption, that instead of a total mediation, poor social support and job stress would play partial mediating roles, showed a poorer fit to the data, which suggested that this alternative relationships are less likely.

According to our model, in supposed and unstable crises, managers in particular need to support their subordinates. Whether opportunities and resources are perceived as scarce, people might not offer social support and they might be inclined to compete.

We hypothesized that if the subordinates overestimate the crisis effects managers have to argue that there is no 'real' crisis or that a crisis is not as bad as people think. In doing so, the harmful effects of the fear of the crisis might be reduced. On the other hand, if the fear of the crisis is more realistic, to change perceptions of organizations in crisis, leaders, especially managers, have to improve their relationship with their followers.

For example, encouraging subordinates or reminding them that the organization is supportive and trustful. Being aggressive and hard with employees is not the best strategy. Employees might think that the crisis must be worse than they thought, if the organization is responding aggressively [28].

In addition, the full mediation of job stress on the relationship between social support and health means that when employees work with poor social support, they may perceive high job demand and role ambiguity. This could facilitate the development of mental health problems.

A possible explanation may be that worried and unsupported employees, who were less proud of their achievements, felt that their work is more ambiguous and heavy.

In short, fear of the crisis decreases social support and this in turn tends to increase stress. Then stress is associated with mental health problems. Possibly, the consequences will be more severe for some categories of workers. Our findings showed that fear of the crisis might develop within particular departments or among some categories of employees.

In this research, women, full-time employees and temporary workers seemed particularly at risk. We consider that fear of the crisis might be higher for categories of workers that seem weaker in Italy, such as women and temporary workers.

In addition, crisis might be more fearful for those who invested more in the company, such as full-time workers, which may be easier targets of contagious negative emotional cycles or might make wrong attributions of the causes of the crisis and its consequences. However, crisis emotions are rarely researched [29]. Consequently, this issue should be investigated further.

It is clear that more representative prevalence studies on fear of the crisis are required. For example, a limitation of this study is that the sample comprised of private sector employees only. Therefore, the generalizability of the results might be limited.

In addition, the construct of fear of the crisis is new in the literature. Hence, our research model should be tested in the future.

Also in addition, our data was based on self-reports, which might be influenced by mono-method bias. Future research may therefore benefit from replicating our findings in longitudinal studies.

Finally, it was not possible, due to companies' data protection, comparing our results with objective data related to the economic crisis.

However, the implications derived from this study appear useful and might help organizations to manage their employees during time of crisis. Managements can create positive emotions [30] and develop optimism in the workplace for employees who are preoccupied with the crisis, by stimulating good teams' atmospheres as well as appraising fairly and correctly the efforts they put into their work in order to increase their control of the results obtained.

The implications derived from this study might be also helpful at the individual level for rehabilitations and mental health service purposes. Indeed, the longer the duration of unemployment the severer are its consequences on mental health [2–4]. However, we noted that people develop mental health problems also because they were worried by the crisis. Consequently, the magnitude and duration of the fear of the crisis should also be considered for the success of rehabilitation and counseling programs.

In conclusion, psychosocial risk management during crisis times appears to be a strategic topic. Although our model suggests that fear of the crisis only affects health indirectly, it is important to assess this new construct for promoting organizational wellbeing.

Companies have to respond to the fear of the crisis by bringing its positive view on the crisis into the opinion forming process and avoiding the danger of decreasing social support for employees [15].

Concurrently, employees should be informed and supported regularly with the aim of avoiding the harm-

ful effects of crisis on workers, especially certain categories of workers.

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