# Work as a recovery factor after earthquake: a mixed-method study on female workers

Work as a recovery factor after earthquake

487

Received 5 February 2018 Revised 22 June 2018 7 October 2018 7 December 2018 11 March 2019 7 June 2019 Accepted 9 June 2019

Teresa Galanti and Michela Cortini Department of Psychological, Health and Territorial Sciences, University G. d'Annunzio of Chieti – Pescara, Chieti, Italy

#### Abstract

**Purpose** – The purpose of this paper is to investigate the reaction of female workers to the earthquake event that shocked the city of L'Aquila in April 2009, with a specific focus on work as a recovery factor.

Design/methodology/approach – The selected sample consists of current or former resident women in the affected province of L'Aquila, who participated in a series of focus group discussions on the ability to reconstruct their own professional identity after the earthquake. The focus group seemed to be the perfect instrument for this research, because of its ability to generate a true discussion among a group of people on the research topic of this study. The collected data were analyzed both in terms of metaphors, as well as linguistic agentivity and by automatic content analysis.

**Findings** – From the analysis of the data, emerges the value that adds to the sense of identity continuity for the women in the sample, together with interesting differences between employed and self-employed workers that are characterized by distinct challenges and assurances. In regards to the effects of gender in response to disaster events, the results make a peculiar echo to the studies on public-private space dichotomy developed by Fordham, according to which, during a disaster, women are not allowed to develop work-related desires. For the group of women that the authors interviewed, the challenge to have family focused or work focused desires was clearly evident; they seem predetermined to the above-mentioned dichotomy, valid in both directions: the women who invested in work and have become entrepreneurs seem to have no chance of a private life and, on the contrary, the women who were focused on more traditional family roles seem to have no chance in terms of job opportunities.

Originality/value – Based on the authors' knowledge this is the first time that focus groups are used to assess the value that work had in supporting individual recovery for women in the aftermath of the L'Aquila earthquake.

Keywords Earthquake, Recovery, Work, Focus group, Gender, L'Aquila, T-Lab Paper type Research paper

#### Introduction

On April 6th, 2009 L'Aquila, a city in Central Italy, was destroyed by a violent earthquake, measuring up to 5.9 MI on the Richter scale, which killed 309 people and injured about 1,600 individuals (Galluccio, 2014). About 90 percent of the residents of L'Aquila were evacuated from their homes (Di Pietro and Mora, 2015); some of them directed to tent camps and others in tourist accommodations in hotels on the Adriatic coast, waiting for the CASE project[1] (Fois and Forino, 2014).

The medieval center of L'Aquila, which hosted several public buildings, churches and a university campus, was seriously damaged.

This event was one of the most devastating disasters in Italy's recent history with an estimated total economic impact of about EURO 540m (Commissariato delegato per la ricostruzione in Abruzzo, 2011). On the business perspective, more than 2,000 businesses were forced to close and those that remained operational suffered severe damages because of the loss of stocks, tools and machinery (Di Pietro and Mora, 2015). With the only exception of the construction and demolition industries, work re-started very slowly. This caused a severe impact on the local economy, which, as a consequence, influenced L'Aquila population's well-being for the year after the earthquake, as shown by Gigantesco *et al.* (2013).



Disaster Prevention and Management Vol. 28 No. 4, 2019 pp. 487-500 © Emerald Publishing Limited 0965-3562 DOI 10.1108/DPM-02-2018-0036 The role of work and its economic impact has been already examined as a recovery factor in L'Aquila's earthquake (see the MICRODIS project; Contreras *et al.*, 2017).

In the present study we focus primarily on the role of work as a psychological recovery factor, emphasizing its power in terms of personal identity. Especially in post-disaster contexts, work may become a crucial factor to re-start a "normal" life for people who have lost relatives, friends, homes and social relationships. Of course, as already mentioned, in similar contexts, job opportunities decrease, thus increasing the negative consequences caused by job insecurity.

# Job insecurity from a psychosocial perspective

The phenomenon of job insecurity has been the topic of numerous studies in research literature. All these studies aimed to give a definition of job insecurity through the explanation of the features and the factors associated with it. Greenhalgh and Rosenblatt (1984, p. 483) defined job insecurity as the impotence that is perceived in maintaining the desired continuity in a potentially threatening situation, while Heaney *et al.* (1994) described it as the perception of a potential threat to the continuity of current work. More recently, Piccoli *et al.* (2017) emphasized the importance of not recognizing the value of work as the key element that delineates the construct itself, highlighting the psychological dimensions of this experience.

Starting from this theoretical framework, the aim of this study is to investigate the reaction of female workers to the earthquake that devastated the city of L'Aquila, Abruzzo, Italy in April 2009.

The reconstruction of L'Aquila required investments from numerous public funds. In total, EURO 21bn have been allocated (comparable to a one-year government budget), and another EURO 4bn will have to be allocated to complete the reconstruction process. However, nine years after the earthquake, the city is still considered a "construction site." Currently, out of the 1,000 active businesses on April 5, 2009 in the city, only 60 businesses are still operational and over 250 have closed. In response to this situation, a call for proposals, called "Fare Centro" (Target Hit), was launched to provide funding for those who wanted to undertake or re-start a business in L'Aquila's historic center. For all these reasons, the need to consider the work as a recovery factor after the earthquake seemed more important than ever.

Many professional activities were uprooted by the earthquake and for many people, it was possible to return to work only, and if, conditions would become more favorable after a long period of time. It is important, to consider that L'Aquila residents did not receive any kind of unemployment benefits related to the earthquake.

Studies on recovery after disasters (see, e.g. Furukawa et al., 2015) have shown that gender and working conditions are among the most important factors in predicting psychological distress. In other words, work assumes a fundamental role in psychological recovery, which can be considered as an intrapersonal process involving resilience, hope, hardiness and finding meaning and purpose in life (Gheno, 2010).

In our view, the return to work may be an anchor to restore an ordinary life-course that allows people to return to the stability they need, especially in post-traumatic moments. Working, within the scheduled time and predetermined rules, may become an empowering tool, thanks to its ability to guarantee continuity. Therefore, we agree with the authors who have highlighted that social indicators play an important role in terms of recovery (see, e.g., the MICRODIS project and Contreras *et al.*, 2017).

# Work, gender and disaster

An increasing number of studies have recognized that gender may play a large part in the roles people have in preparation, response, recovery and reconstruction in disaster events.

Work as

a recovery

factor after

The pioneer work of Ehrenreich (1976) has been fundamental in order to highlight both cultural and economic aspects of disasters as gendered events. The economic aspect is particularly evident in terms of devaluation of work performed by women and by the limited participation of women in formal economic processes.

Results of several empirical studies suggest that, generally, disasters reinforce gender stereotypes (Enarson, 2012) or even revert to traditional roles of earlier times (Hoffman and Hearn Morrow, 1998; Madi, 2017), as people feel the need to rely on very distinctive and distant roles in order to face severe challenges and risks. Unfortunately, often this becomes a very stereotyped gender image, where men are expected to protect, while women are expected to set aside their own needs and desires, sacrificing first their right to work (Parkinson, 2015; Zara et al., 2013).

For such a reason, in the public-private space dichotomy (Fordham, 1998), in post-disaster, women seem to be allowed to play private roles only, thus, having limited access to the domain of power, meant as the domain of active working and policy making (Enarson, 2012; Enarson *et al.*, 2007; Gaillard *et al.*, 2017).

In line with these studies, Bradshaw and Fordham (2014) discussed the "feminization of responsibility" after Hurricane Mitch in Nicaragua, emphasizing that the disaster "doubles" for women, since they suffer longer term and more intangible impacts such as greater insecurity in employment.

The present study aims to investigate the role of work as an empowering instrument for women after a disaster event, with a mixed-method research design that we will explain in the following section.

The role of work as a recovery factor after the L'Aquila earthquake has been already investigated (Contreras, 2016); here we want to focus on work, not from an economic point of view, but rather as a psychological factor, able to support personal identity (among others, see Van Dick, 2001; Haslam, 2004; Avanzi *et al.*, 2012, 2018), which can be seen as a crucial factor in terms of well-being during disaster management.

We follow a recent trend within gender and disaster literature focused on resilience, in the effort to show that women may be not only vulnerable but also empowering (Gaillard *et al.*, 2015; Wisner *et al.*, 2016).

## Method

The sample consisted of women who are current residents or were former residents in the affected area, in the province of L'Aquila. We have carried out a series of focus group discussions; in detail the groups were formed following a logic of group composition numerical-variable (Cortini, 2005) and homogeneous by type of participant, identified by type of work contract (temporary, public employees, workers in training, socio-sanitary professionals, managers, private employees). A non-directive conduction was chosen (Cortini, 2005), with two moderators (an Academic Researcher and a Counselor of Equity participated as moderators in each focus group). By "non-directive conduction" we mean that the role of the moderator is that of being a facilitator rather than a leader of the discussion. A non-directive moderation allows the spontaneity of conversation and promotes group interactions (Barbour and Morgan, 2017).

The sample of participants, recruited on a voluntary basis by a specific "call for participants" published by the Counselor of Gender Equity of L'Aquila, consists of 53 women, aged between 23 and 64, including entrepreneurs, public and private employees, temporary job seekers, teachers, and healthcare workers. We decided to distinguish teachers and healthcare workers in comparison to other public and private employees in order to detect differences related to the specificities of performing a social job for a community after an earthquake trauma.

Focus groups were conducted in L'Aquila, from May to July, 2010, one year after the earthquake. We have to stress that our data were collected in 2010 but started to be

analyzed in 2018, something that could surprise DRM readers but that has also deep reasons why. Actually, we decided to analyze our data with an important time delay in order to be objective, considering that we are Abruzzo women too. In addition, unfortunately, women condition did not change in the city across these years and we expect that if these data would be collected today they will tell us similar results. Last but not least, perhaps it is not a case that the last manifestation, which has been promoted by earthquake victims' relatives and which has occurred in Rome on the last may, 18th, has had as title "In a part of Italy the time has stopped."

We ran a focus group for each contract type, with nine participants in every group, with the exception of the temporary job seekers group (eight women).

Each focus group discussion was audio-taped and transcribed. The subsequent analyses were performed on transcripts.

The idea of introducing a qualitative study came from the attempt to conduct a triangular research (Fielding and Fielding, 1986; Cortini, 2011, 2014), based on what is known as the methodological appropriateness paradigm (Patton, 1990). According to this paradigm, when choosing different methods for collecting and analyzing data, the specificity of competences possessed by the researcher, as well as the consistency of the object that is being investigated, must serve as the guiding criterion.

In our study, we wanted to investigate a strong psychological experience such as the ability to reconstruct one's own professional identity following a trauma event such as an earthquake. For these reasons, we decided to focus primarily on qualitative data. It is important to note, that this research topic has never been investigated in the Italian research literature. Therefore, the explorative nature of this study has prompted us to collect as much data as possible in response to a methodological system inspired by the so-called grounded theory (Glaser and Strauss, 1988; Corbin and Strauss, 1990).

The focus group discussions, or just "focus groups," are a particular type of group interviews, developed and used mainly in the context of marketing (Chirumbolo and Mannetti, 2004) and healthcare but recently exported in the more general field of social sciences (Suzuki *et al.*, 2009).

As suggested by the labeling of the technique, the purpose of the groups is to make the participants discuss with each other. In this sense, an ideal focus group is not a collection of different individual interviews, but rather a real discussion between a group of people on a given topic (the focus).

The material gathered within the focus groups is discursive and it is up to the researcher to decide how to analyze it; in our case, we opted for a multi-method analysis.

The discussion focused on the value of working after the earthquake along with the difficulties related to returning to work.

### **Analysis**

The data collected with the Focus Group, which are discursive and qualitative data, have undergone a twofold analysis path to contemplate quantitative and qualitative re-elaboration techniques, following the triangular research (Cortini, 2014) that we intended to adopt.

For the qualitative analysis, we proceeded with a "classical" analysis of the discourse (Mininni, 2002), consisting mainly of the analysis of metaphors and of the linguistic agentivity.

As far as quantitative analysis is concerned, we performed a careful content analysis supported by the T-Lab software (analysis of occurrences and co-occurrences of words and linguistic specificity analysis). We added an automatic content analysis, which is primarily based on the idea that the more we refer to specific word families, the more these concepts are important. In other words, when people use the same concepts often, it is because those concepts are important to them.

Work as

a recovery

factor after

earthquake

Metaphor analysis. Regarding the main results, it is interesting to refer to the qualitative analysis of metaphors. This is done by analyzing and "clustering" all the metaphors produced by the subjects, based on the macro-hypothesis that metaphors are an instrument used to condense the meaning of concepts, or to reference Potter and Wetherell (1987), an "interpretative repertoire" capable of giving value to a series of concepts. Metaphors can be seen as unexpected views on the mysterious procedures that translate claims of meaning into discursive modes suitable to specific situations (Manuti and Mininni, 2010).

Some of the most interesting clusters highlighted refer to the idea of the earthquake as something not merely geological but rather "invasive"; in other words, we could say that the earthquake has brought to light other "earthquakes," which do not concern the earth but rather people and their lives (Cortini, 2011), primarily work, which is threatened as never before (Example 1) as well as socio-relational issues (Examples 2 and 3), which are hardly reconstructed because of the relocation of earthquake victims in makeshift tent cities, or in other geographical location such as the Adriatic coast, near Pescara[2] (Contreras *et al.*, 2017):

Example 1: "because shortly after we immediately felt the need to stay here to preside over our work, because among other things, our work had also collapsed vertically." (FG entrepreneurs)

Example 2: "We are experiencing an earthquake that is not only emotional but also economical. We are living a social earthquake, we are experiencing definitely violent things, from the social and personal point of view, and we are living in loneliness." (FG socio-healthcare workers)

Example 3: "The expenses, I repeat, the expenses we had to face, the move, this and that. It was for us an economic earthquake. There are people who have lost their jobs. I cannot complain about it, but it was also an economic earthquake for me to rebuild a house with our own expenses." (FG private employees)

Another set of interesting metaphors concerns the value of reorganization that the earthquake provoked:

Example 4: "All forms of social differences have been eliminated. All of us are at the same level. All in canvas slings. Then and there you re-evaluate the value of the person, regardless of what job s/he had, how much money one had. You feel them truthfully. How can I say it? we are all passengers, travelers. And since we are all travelers, what is the only thing you really possess? what do you bring in that is your heritage" (FG healthcare workers).

Here, there is a specific aspect to consider which deserves our attention; this woman stresses that the earthquake has touched and affected the entire L'Aquila population, without social distinctions restoring interclass equality in the forms of staying in "canvas slings," which emphasizes vulnerability, precariousness and weakness of the human condition.

This may appear, at least at first glance, as incoherent to our theoretical framework on gender and disaster that we have mentioned in the previous paragraph, a framework that stresses the diversity of roles and possibilities during a disaster. However, this forces us to specify that disaster management has different temporal and causal relations, so that, in terms of hazard, nobody can do anything to impede an earthquake to occur (the only possibility, in psychological terms, is to develop preparedness and coping strategies), and in such a sense we have a social leveling. On the contrary, in terms of prevention and post-disaster management and recovery there are noticeable differences.

Interestingly, in terms of work psychology, the reference to the returning to work as a possibility of identity "reacquisition" and of "rebirth" is presented in the following examples, both in positive (Example 5) and in negative (Example 6) terms:

Example 5: "It was very important for me to come back to work, directly from the tents; it was the possibility to regain a piece of my life." (FG teachers)

Example 6: "temporary work is demotivating because you cannot do what you want and then the relationships are fragmentary and everything has a temporary character" (FG temporary workers).

In the last example, it is tangible that not all workers have the same possibility when facing the aftermath of an earthquake; those who cannot benefit from a secure work contract will feel the job insecurity as an additional challenge, with less social help from others, experiencing a sense of life insecurity. In such sense, it would be interesting also to investigate unemployed women, who, unfortunately, are not present in our sample of participants.

While investigating more closely other difficulties, always linked to work-family balance, experienced by the L'Aquila workers in the post-earthquake, the fatigue due to family management is evident:

Example 7: "On Saturdays, I do not have anyone to look after my baby, sometimes my mother comes over. Finding a baby-sitter is very difficult and nobody comes here because of road conditions." (FG public employees)

Example 8: "For me working has become much more troublesome because many times people are losing sight of this earthquake story. Those who know it are the earthquake victims, because everyone is kept away from home, out of their houses, and landmarks are changed. as well as the people who worked with us. For example: our job advisor or our accountant, before the earthquake, I just had to pick up the phone [...] after half an hour I had their reports on the computer [...] but because they have problems because they are out of the office and out of their houses, then working has become very laborious and time spending for me." (FG entrepreneurs)

The lack of landmarks speaks more often in women's speech that has been part of the FG as an element of effort (Example 9) in finding a balance that made the workers "very happy." To use their own words, because it gave them the possibility to be a mother and at the same time to realize themselves professionally (Example 9):

Example 9: "it has become harder. the job doubled in some ways and I had to cover all the roles, which were still being discovered, so the fatigue was so great. – but now in addition – the thing that has increased the fatigue is that clearly my social network collapsed. in the sense that I lived in L'Aquila in the historic centre, I had the office at the "Quattro Cantoni," in a beautiful ancient palace, my mother-in-law lived in Don Bosco street. I have a teenage daughter. so my mother-in-law was a fundamental point of reference. because I was always out, I travelled. but there was a balance, in fact I was very happy."

Finally, to return to the dimension of work value, we have found a series of metaphors to refer to work not only as a source of identity and personal achievements (see above), but also as a source of well-being that we could define psychologically, as seen from the following examples:

Example 10: "For example, me and my husband have not even saved one euro. all we have, we spend it. We have also endured one month layoff, however, during the layoff we paid the INPS[3] because times are difficult. It is an effort that we undertook to make sure that these people received the salary at the end of the month." (FG entrepreneurs)

Example 11: "We had a substantial turnover, heavy. and reality hits you, for example our collaborators that we had, I always said it to my husband, it is a psychological support, right? Because we still had to support them. We had a woman who was on maternity leave and then the baby was born in October, so she was in a special moment. It was a little shelter for this small group, it was sort of [...] and then there was a job at least for psychological support, because then there were people who were not able to move not even one thing from here to there anymore." (FG entrepreneurs)

From this last example emerges the dimension of working as a form of being, despite the level of performance, that because of the trauma, can be definitely limited. Work that becomes a "haven," and before being characterized by a specific core business, it rather becomes a way to be harvested; a kind of second nest where it can be sustained. Interestingly, in this regard, it was important to emphasize the agentivity that "we had to support them": on one hand the feeling of "being forced to" and on the other hand, the expression of a force that becomes a sign of maternal, caring and protection: "protagonism"; in other terms, a sign of gender empowering.

# Content analysis of the text material collected through the focus groups

To complete the analysis of the text material collected through the focus groups, we decided to return a mapping of the characterizing themes, through the automatic analysis of the contents with the help of T-Lab software (Lancia, 2012; Cortini and Tria, 2014).

# Text preparation

As a preliminary step, we merged the transcripts of all focus groups into one single "txt" format file. Before analyzing the text in T-Lab we performed the necessary clean-up operations of the text. Disambiguation work, where homophones words are distinct, and a lemmatization work, where different words are made to go back to a single root were included. Thus, allowing an analysis of conceptual content. An example of disambiguation work is given by the "state" form, that can mean both "nation" and the past participle of the verb "to be" in Italian; disambiguating means to retrace in the text all the possible homophonic words and re-tag them.

In regards to the reverse process, the lemmatization, which brings different linguistic forms to a common root, we took as an example, the combination of the lemmas worker and working under the umbrella lemma work. The logic of this operation responds to the need of computing the concept of work in any of the linguistic forms in which it is expressed. Therefore, to combine all the conjugations, the tenses, and the forms of the verb to work (preliminary operation that the software performs automatically before starting the analyses), as well as all the other words used to define the concept of work. The analysis technique we are performing, content analysis, intends to analyze the conceptual content that is concealed behind apparently different linguistic forms.

# Associations analysis

After text preparation, we proceeded with the first automatic analysis of occurrences and co-occurrences, that in technical jargon is defined Associations Analysis, performed only on words with frequency threshold of 4, as suggested by recent International literature using T-Lab (Verrocchio *et al.*, 2012; Cortini and Tria, 2014; Benevene *et al.*, 2017).

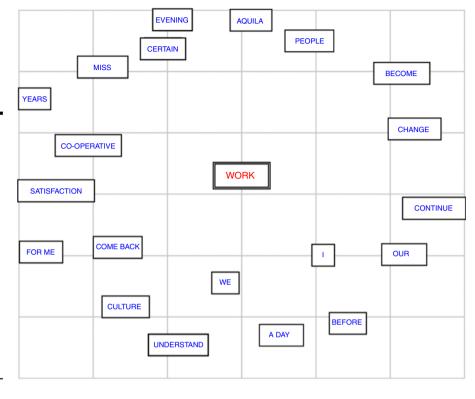
As can be seen from the chart above (Figure 1), the association value of each thematic element is graphically represented in terms of distance from the key word in the middle. Work seems to be characterized by post-earthquake women referring to two large dimensions: the stability-continuity and change. The associations may be expressed by both, distance in the graph, and Coseno index, where indexes more than 0.20 indicate an important co-occurrence between two distinct words.

In terms of word associations, first, work is associated with words such as "continue" (association index, Coseno, 0.20) and "come back" (association index, Coseno, 0.27), demonstrating what was already suggested by the metaphorical analysis. Second, the associations of words such as "to become" (association index, Coseno, 0.20) and "change" (association index, Coseno, 0.22) are very evident (Figure 1), pointing out how the job became a factor that requires change and adaptation, or, in other words, flexibility. This dialectic between stability and change recall the famous study of Sennett (1998) on the dismissed IBM programmers who regularly meet in a café and try to make sense of what is going on and how it could be possible for them to search a new job without losing their occupational identity.

We may conclude by pointing out the temporary nature and precariousness of work for female workers of L'Aquila, besides the fact of being actually temporary workers or not.



494



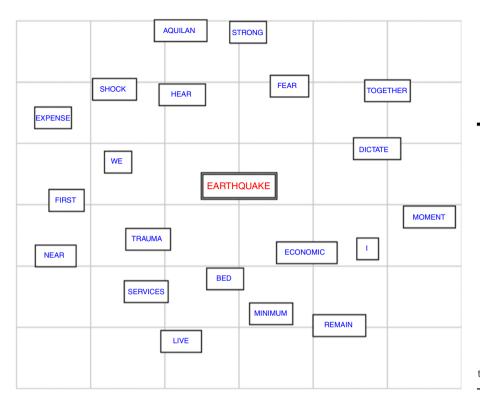
**Figure 1.** Word Association of the most cited word: "work"

Nevertheless, work remains perceived as a factor of satisfaction (association index, Coseno, 0.21). The value that work assumes during post disaster suggests the necessity of unemployment benefits, which unfortunately have not been provided in the case of L'Aquila, but that could have had a fundamental role in terms of well-being and recovery, especially in supporting a re-start for self-employed people.

Although the word earthquake does not have a very high threshold (37 occurrences), and in terms of content analysis does not seem to be a key element itself, it strikes the discursive universe in which it is used. As we have argued elsewhere (Verrocchio *et al.*, 2012), it is the whole picture of associations of the different words that matter, and not the frequency of thresholds that proves to be the forerunners of meaning. In our case, on one hand, associations refer to emotionally related words, such as "trauma" and "fear," with associative indexes of Coseno 0.25 and 0.21 and, on the other hand, they refer to words from an economic point of view ("economic," association index, Coseno, 0.27) (Figure 2). To confirm the qualitative analysis, the earthquake is defined not only in terms of shock, but also as an economic earthquake. Among the various linguistic forms with which the word earthquake is associated we also have the word "expense" (association index, Coseno 0.13), with references to the costs of house rebuilding but also to the burden of not having an income.

# Analysis of linguistic specificity

Finally, we have explored the distinctions between self-employed workers and employees, with the analysis of linguistic specificity, both exclusive and specific. It is a question of finding words, or groups of words, used more by one group than the other or used exclusively by one group with respect to the other. For the first kind of analysis of



Work as a recovery factor after earthquake

495

Figure 2. Word Association of the word "earthquake"

the specificity, we investigated the only differences in words with frequency threshold 5 (Tables I–IV).

It is obvious that some words that characterize one or the other group may be of little significance, such as "Saturday." However, a constellation of distinctive words between the two groups emerged. In particular, the employees often refer to family roles and family members ("home," "mother," "life," "senior") and less to the dimension of the "work"; specular datum to that of self-employed women (under-used words: "home." "life." "spending"). Therefore, over and under-used words seem to suggest that life—work conflict can be a luxury that self-employed women cannot afford, having to silence (literally and not just metaphorically in this case) concerns, desires, anxieties about the family, because they are absorbed by work (Table I). However, work seems to be a source of "satisfaction" (exclusive word) for self-employed workers and pushes them into a proactive vision (Table I). It is significant in this sense, among the unique features of self-employed women, the presence of words such as "to resume," "motivation," "pleasure" (Table II), while the presence of the "trauma" word is unique among the characteristics of the employees (Table IV). The high associations with words like "home," "mother" and "elderly" for the subsample of employee women (Table III), along with the low association with the word "work" (under-used word, Table III) suggest that women seem to be allowed to play private roles only, recalling the public-private space dichotomy (Fordham, 1998).

### Discussion and conclusions

The analysis of the focus groups with L'Aquila women workers has shown the value that work assumes during post disaster.

DPM 28,4	Word	$\chi^2$	SUB	Total
,	Over-used words			
	Work	18.97	92	136
	Own	15.88	25	29
	Year	11.65	14	15
	Territory	8.39	13	15
496	You	8.21	22	29
	Years	7.44	14	17
	Secure	6.62	9	10
	To put	6.55	23	32
	Beautiful	5.66	12	15
	To search	4.83	16	22
	Palace	4.66	7	8
	To think	4.65	9	11
	Moment	4.22	12	16
	Before	3.99	22	33
Table I.	Aguila	3.99	30	47
Linguistic specificities	-			
(both characterizing	Under-used words			
and not characterizing)	Home	-16.64	41	129
of self-employed	Expense	-6.22	1	10
women	Life	-6.22	1	10

Word	OCC	Word	OCC
Lower	17	Rome	7
Office	15	Pleasure	6
Culture	14	Integration chase	6
Community	13	Motivation	5
Common	11	Familiar	5
Co-operative	8	Employees	5
Garden	7	Precarious	5
Strong	7	Communication	5
Market	7	Satisfaction	5
To resume	7	Fatigue	5

**Table II.**Exclusive linguistic specificities of self-employed workers

Specifically to disasters as gendered events, our results make a peculiar echo to those on public-private space dichotomy (Fordham, 1998), according to which during a disaster women are not allowed to develop work-related desires. For our interviewed women it is a real challenge to have, at a time, family focused and work focused desires. They seem predetermined to the above-mentioned dichotomy, valid in both directions: the women who have invested in work and are entrepreneurs seem to have no chance of a private life, while on the contrary, those who are more "traditionally" focused on family roles seem to have no chance in terms of job opportunities.

It seems that this last element may generate new research questions, particularly regarding the delicate work—life balance. Furthermore, the reconciliation between work and life, repeatedly present in the discussions of employed workers, is not only the expression of a direct experience (the possibility of reconciliation), but also the recognition of a persistent need in their own and others' life that opens the possibility to accept and embrace others who experience the same problems ("welcome" in terms of active and not passive agentivity is an exclusive word of employees).

Word	$\chi^2$	SUB	Total	Work as a recovery
Over-used words				factor after
Home	16.64	88	129	
Mother	12.93	16	17	earthquake
To bring	10.03	13	14	
Project	9.07	12	13	40.
Civil protection	7.17	10	11	497
Expense	6.22	9	10	
Life	6.22	9	10	
To call	6.03	11	13	
To live	5.53	16	21	
She	5.48	24	34	
Folk	5.29	8	9	
Morning	5.2	12	15	
People	4.49	31	47	
Elderly	4.36	7	8	
Door	4.36	7	8	
Possibility	4.36	7 7	8	
First	4.36	7	8	
Under-used words				Table III.
	19.07	44	196	Linguistic specificities
Work	-18.97		136	(both characterizing
Own	-15.88	4 7	29	and little characterizing)
You	-8.21	1	29	of employees

Word	OCC	Word	OCC	
Patient	14	Control	6	
Psychologist	12	To receive	6	
Mrs	11	Study	6	
Department	11	Carabineer	6	
Tent city	10	Documents	5	
Association	9	Origins	5	
Bus	8	Saturday	5	
To come in	8	Trauma	5	Table IV.
To conceal	7	To use	5	Exclusive linguistic
Sensation	7	You	5	specificities of
Ground floor	6	Necessary	5	employees

The possibility of mutual support seems to be an interesting and fascinating element, which deserves to be further investigated, focusing on the conditions under which working women can give and receive help in terms of work–life balance in extreme conditions such as the post-earthquake situation.

Last but not least, the active agentivity that women express may become important in terms of a more general disaster management: from prevention to recovery. This calls for a more complex and integrated risk and disaster management where women may play an active role, as well as in disaster risk governance to guarantee an engendered development and prevent situations of unbalanced disaster costs (Saito, 2011). In particular, it seems to us that not only institutions are not cable of taking into account gender-based vulnerabilities but also that they often hide women's capacities as individuals and as a group, as our focus groups have shown for what concerns working abilities and desires.

DPM 28.4

498

#### **Notes**

- 1. On May 16, 2009 the Services' Conference of the Council of Ministers, approved the project "Sustainable and Environmentally Friendly Anti-seismic Complexes", called C.A.S.E., a project that aimed to provide a provisional accommodation to the earthquake victims in the shortest time possible. The goal of C.A.S.E. was the development, within 5–6 months, of new anti-seismic houses simultaneously with the progressive dismantling of the tent cities built during the initial emergency phase.
- 2. Pescara is the city with the largest number of inhabitants in Abruzzo (119.820 inhabitants). It is located along the Adriatic coast, and it is about 100 km from L'Aquila.
- 3. Italian State body that co-ordinates National Insurance funds.

# References

- Avanzi, L., Cortini, M. and Crocetti, E. (2012), "When age matters: the role of teacher aging on job identity and organizational citizenship behaviours", *Revue Internationale De Psychologie Sociale*, Vol. 25 Nos 3-4, pp. 179-210.
- Avanzi, L., Albertini, S., Fraccaroli, F., Sarchielli, G., De Plato, G. and van Dick, R. (2018), "Exploring identity dynamics from a combined social exchange and social identity perspective", *International Public Management Journal*, Vol. 21 No. 4, pp. 677-702, doi: 10.1080/10967494.2015.1115450.
- Barbour, R.S. and Morgan, D.L. (2017), A New Era in Focus Group Research, Palgrave MacMillan, Portland, OR.
- Benevene, P., Kong, E., Barbieri, B., Lucchesi, M. and Cortini, M. (2017), "Representation of intellectual capital's components amongst Italian social enterprises", *Journal of Intellectual Capital*, Vol. 18 No. 3, pp. 564-587, doi: 10.1108/IIC-12-2016-0127.
- Bradshaw, S. and Fordham, M. (2014), "Double disaster: Disaster through a gender lens", in Collins, A., Jones, S., Manyena, B. and Jayawickrama, J. (Eds), *Hazards, Risks and Disasters in Society*, Elsevier, Amsterdam, pp. 233-251.
- Chirumbolo, A. and Mannetti, L. (2004), Le Ricerche di Marketing, Carocci Editore, Bologna.
- Commissariato delegato per la ricostruzione in Abruzzo (2011), "Prime considerazioni sugli scenari di sviluppo e le strategie di intervento da mettere in campo per il territorio dell'Aquila", available at: www.commissarioperlaricostruzione.it/Informare/Normative-e-Documenti/Atti-e-documenti-della-Struttura-Tecnica-di-Missione-STM/Idee-e-strumenti-per-la-ricostruzione-pesante/Prime-considerazioni-sulle-strategie-di-sviluppo-e-gli-scenari-di-intervento-da-mettere-in-campo-per-il-territorio-dell-Aquila (accessed December 12, 2017).
- Contreras, D. (2016), "Fuzzy boundaries between post-disaster phases: the case of L'Aquila, Italy", International Journal of Disaster Risk Science, Vol. 7 No. 3, pp. 277-292, doi: 10.1007/s13753-016-0095-4.
- Contreras, D., Blaschke, T. and Hodgson, M.E. (2017), "Lack of spatial resilience in a recovery process: case L'aquila, Italy", *Technological Forecasting and Social Change*, Vol. 121 No. 8, pp. 76-88, doi: 10.1016/j.techfore.2016.12.010.
- Corbin, J.M. and Strauss, A. (1990), "Grounded theory research: procedures, canons, and evaluative criteria", Qualitative Sociology, Vol. 13 No. 1, pp. 3-21, doi: 10.1007/BF00988593.
- Cortini, M. (2005), "Fare Ricerca con i focus group: quanti partecipanti per gruppo?", Sociologia e Ricerca Sociale, Vol. 4 Nos 76-77, pp. 29-42.
- Cortini, M. (2011), "Job Insecurity e Terremoto", Indagine con Focus Group, in Ufficio delle Consigliere di Parità d'Abruzzo, Decent Work e Insicurezza Lavorativa, Unpublished Report, Pescara.
- Cortini, M. (2014), "Mix-method research in applied psychology", Mediterranean Journal of Social Sciences, Vol. 5 No. 23, pp. 1900-1905, doi: 10.5901/mjss.2014.v5n23p1900.
- Cortini, M. and Tria, S. (2014), "Triangulating qualitative and quantitative approaches for the analysis of textual materials: an introduction to T-lab", *Social Science Computer Review*, Vol. 32 No. 4, pp. 561-568, doi: 10.1177/0894439313510108.

Work as

a recovery

factor after

earthquake

- Di Pietro, G. and Mora, T. (2015), "The effect of the L'Aquila earthquake on labour market outcomes", Environment and Planning C: Government and Policy, Vol. 33 No. 2, pp. 239-255.
- Ehrenreich, B. (1976), "What is socialist feminism?", Working Papers on Socialism & Feminism, Win Magazine, June 3, available at: www.marxists.org/subject/women/authors/ehrenreich-barbara/socialist-feminism.htm
- Enarson, E. (2012), Women Confronting Natural Disaster: From Vulnerability to Resilience, Lynne Reiner, Colorado, CO.
- Enarson, E., Fothergill, A. and Peek, L. (2007), "Gender and disaster: foundations and directions", Handbook of Disaster Research, Springer, New York, NY, pp. 130-146.
- Fielding, N.G. and Fielding, J.L. (1986), "Linking data: the articulation of qualitative and quantitative methods in social research.
- Fois, F. and Forino, G. (2014), "The self-built ecovillage in L'Aquila, Italy: community resilience as a grassroots response to environmental shock", *Disasters*, Vol. 38 No. 4, pp. 719-739, doi: 10.1111/disa.12080.
- Fordham, M.H. (1998), "Making women visible in disasters: problematising the private domain", *Disasters*, Vol. 22 No. 2, pp. 126-143.
- Furukawa, H., Takeuchi, T., Yano, E. and Muto, S. (2015), "Factors influencing psychological distress after the great east japan earthquake and tsunami", *Journal of Community Psychology*, Vol. 43 No. 5, pp. 521-526, doi: 10.1002/jcop.21695.
- Gaillard, J., Fordham, M. and Sanz, K. (2015), "Culture, gender and disaster: from vulnerability to capacities", in Krüger, F., Bankoff, G., Cannon, T. and Schipper, L. (Eds), Cultures and Disasters: Understanding Cultural Framings in Disaster Risk Reduction, Taylor & Francis, London, pp. 222-234.
- Gaillard, J.C., Sanz, K., Balgos, B.C., Dalisay, S.N.M., Gorman-Murray, A., Smith, F. and Toelupe, V. (2017), "Beyond men and women: a critical perspective on gender and disaster", *Disasters*, Vol. 41 No. 9, pp. 429-447, doi: 10.1111/disa.12209.
- Galluccio, A (2014), "Terremoto dell'aquila e responsabilità penale. Nesso causale ed addebito di colpa nella sentenza 'Grandi Rischi", Diritto Penale Contemporaneo – Rivista trimestrale, Vol. 4 No. 1, pp. 190-214.
- Gheno, S. (2010), La Formazione Generativa, Franco Angeli, Milano.
- Gigantesco, A., Mirante, N., Granchelli, C., Diodati, G., Cofini, V., Mancini, C., Carbonelli, A., Tarolla, E., Minardi, V., Salmaso, S. and D'Argenio, P. (2013), "Psychopathological chronic sequelae of the 2009 earthquake in L'aquila, Italy", Journal of Affective Disorders, Vol. 148 Nos 2-3, pp. 265-271, doi: 10.1016/j.jad.2012.12.006.
- Glaser, B.G. and Strauss, A.L. (1988), Grounded Theory, Strategien Qualitativer Forschung, Huber, Bern.
- Greenhalgh, L. and Rosenblatt, Z. (1984), "Job insecurity: toward conceptual clarity", Academy of Management Review, Vol. 9 No. 3, pp. 438-448.
- Haslam, S.A. (2004), Psychology in Organizations: The Social Identity Approach, 2nd ed., Sage, London.
- Heaney, C., Israel, B. and House, J. (1994), "Chronic job insecurity among automobile workers: effects on job satisfaction and health", Social Science and Medicine, Vol. 38 No. 10, pp. 1431-1437.
- Hoffman, S.M. and Hearn Morrow, B. (1998), "Eve and adam among the embers: gender patterns after the Oakland Berkeley Firestorm", The Gendered Terrain of Disaster: Through Women's Eyes, International Hurricane Center, Laboratory for Social and Behavioral Research, pp. 55-61.
- Lancia, F. (2012), "T-Lab 8.1 user's manual tool for text analysis", available at: www.tlab.it
- Madi, K. (2017), "Haiti and why we need more women managing disaster risk. UNISDR", The Huffington Post, March 10, available at: www.huffingtonpost.com/entry/haiti-and-why-we-needmore-women-managing-disaster\_us\_58befc86e4b05386ddc0ca86 (accessed January 10, 2018).
- Manuti, A. and Mininni, G. (2010), "Metaphor as an expressive resource of human creativity in organizational life", World Futures: Journal of General Evolution, Vol. 66 No. 5, pp. 335-350.

- Mininni, G. (2002), Virtuale.com. La parola spiazzata, Idelson-Gnocchi, Napoli.
- Parkinson, D. (2015), "Women's experience of violence in the aftermath of the Black Saturday bushfires", thesis submitted in Fulfilment of the Requirements for the Degree of Doctor of Philosophy, Clayton, School of Social Sciences, Faculty of Arts, Monash University, Clayton.
- Patton, M.Q. (1990), *Qualitative Evaluation and Research Methods*, 2nd ed., Sage Publications, Newbury Park, CA.
- Piccoli, B., De Witte, H. and Reisel, W.D. (2017), "Job insecurity and discretionary behaviors: social exchange perspective versus group value model", *Scandinavian Journal of Psychology*, Vol. 58 No. 1, pp. 69-79.
- Potter, J. and Wetherell, M. (1987), Discourse and Social Psychology: Beyond Attitudes and Behaviour, Sage, London.
- Saito, F. (2011), "Women and the 2011 East Japan disaster", Gender & Development, Vol. 20 No. 2, pp. 265-279.
- Sennett, R. (1998), The Corrosion of Character: The Personal Consequences of Work in the New Capitalism, WW Norton & Company, New York, NY.
- Suzuki, J., Isozaki, H., Carreras, X. and Collins, M. (2009), "An empirical study of semi-supervised structured conditional models for dependency parsing", *Proceedings of the 2009 Conference on Empirical Methods in Natural Language Processing: Volume 2, Association for Computational Linguistics, August*, pp. 551-560.
- Van Dick, R. (2001), "Identification in organizational contexts: linking theory and research from social and organizational Psychology", *International Journal of Management Reviews*, Vol. 3 No. 4, pp. 265-283.
- Verrocchio, M.C., Cortini, M. and Marchetti, D. (2012), "Assessing child sexual abuse allegations: an exploratory study on psychological reports", *International Journal of Multiple Research Approaches*, Vol. 6 No. 2, pp. 175-186, doi: 10.5172/mra.2012.6.2.175.
- Wisner, B., Berger, G. and Gaillard, J.C. (2016), "We've seen the future, and it's very diverse: beyond gender and disaster in West Hollywood, California", *Gender, Place and Culture*, Vol. 24 No. 1, pp. 27-36.
- Zara, C., Weiss, C. and Parkinson, D. (2013), Men on Black Saturday: Risks and Opportunities for Change. Vol. 3 Men, Masculinity, Disaster: A Literature Review, Women's Health Goulburn North East, Wangaratta.

### Further reading

- Alexander, D. (2012), "An evaluation of medium-term recovery processes after the 6 April, 2009 earthquake in L'Aquila, central Italy", *Environmental Hazards*, Vol. 13 No. 1.
- Minardi, V., Gigantesco, A., Mancini, C., Quarchioni, E., D'Argenio, P. and Cofini, V. (2016), "Behavioural risk factors in L'Aquila (Central Italy) 3-5 years after the 2009 earthquake", Epidemiologia e prevenzione, Vol. 40 No. 2 S1, pp. 34-41.
- UNIFI (2011), MICRODIS Key Findings, Vol. 6, University of Firenze Press, Firenze.

### Corresponding author

Michela Cortini can be contacted at: cortini@unich.it