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**Understanding Community Disruption in the Aftermath of  
Earthquakes: The 2009 L'Aquila and 2016 Amatrice  
earthquakes in Central Italy**

**Danila D'Errico**

**BSc, MSc**

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## **Abstract**

For many years, the main focus of psychological research related to the impact earthquakes have on individuals has mainly concentrated on the development and prevalence of psychological disorders among survivors, especially PTSD, Anxiety and Depression. However, only a small subset of people actually meets all of the criteria to receive a psychiatric diagnosis.

Italy, one of the most seismic countries in Europe, has a long history of large earthquakes. Italy's rich history of architecture leaves many of its villages at risk whenever an earthquake hits. In recent years, Central Italy has experienced several earthquakes of significant magnitude. Between 2009 (L'Aquila) and 2016 (Amatrice), over 600 people lost their lives and entire communities have been completely destroyed as a consequence of these earthquakes. Both the 2009 L'Aquila and the 2016 Amatrice earthquakes have led to severe community disruption which has negatively affected residents' psychological sense of community, bond with their environment, and future expectations. This was mainly caused by the loss of meeting places which mostly collapsed or were damaged during the earthquake (e.g. town centres, restaurants, cafes, local shops, churches, and schools) and by the temporary and permanent relocation of survivors. Some of these aspects were further aggravated and/or initiated by the decisions made by local and national authorities as residents' voices and needs were very rarely heard and respected.

Multiple factors contribute to the development of mental illness in disasters' survivors, among these post-disaster factors (such as community disruption, lack of social support, living in temporary house, permanent relocation). This PhD aimed to develop our understanding of the impact of earthquakes on survivors and their communities. The emphasis will be on those post-disaster factors that can lead to severe negative consequences long-term, not only for each resident, but for their entire community.

Three different qualitative studies were carried out. The pilot, *Study One*, aimed at developing the protocol for a new unique qualitative interviewing technique that has not been used before at the site of a natural disaster: walking interviews, and to evaluate its effectiveness for the purpose of this study. *Study two* aimed at examining participants' experiences of the earthquakes with a particular focus on the social consequences experienced by survivors. Finally, *Study Three* aimed at exploring participants' shared understanding of the earthquake and community disruption by using focus groups. Study Two and Three also aimed to explore the possible differences between the two towns as not only the earthquakes occurred at different points in time (L'Aquila in 2009 and Amatrice in 2016), but also their social structures differ on several levels.

In addition, this research provides evidence for the effectiveness of the walking interviews methodology in the context of earthquakes. It provided the opportunity for participants and the interviewer to share powerful thoughts and emotions in relation to specific sites that were of importance to the participant.

Walking interviews explored the relationship between what people say and where they say it which shows the importance of the environment as a co-producer of dialogue.

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## Publications and Conferences

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- D'Errico, D., & Hunt, N. (2018). Psychological and Community consequences for Earthquake Survivors. *M&HS Faculty Postgraduate Research Forum, The University of Nottingham*
- D'Errico, D., & Hunt, N (2019). Walking between disciplines: Research in Earthquake zones. *Bridging the Gap between Psychology and the Social Sciences Conference, University of Nottingham*
- D'Errico, D., & Hunt, N. (2019). Social and Community consequences of the 2009 L'Aquila and 2016 Amatrice's Earthquakes: IPA Walking Interviews. *Sue Watson Oral Presentation, The University of Nottingham*



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# **CHAPTER ONE. Literature review**

## **1. Introduction**

This PhD research project aims to develop our understanding of the impact of earthquakes on survivors and their communities. Earthquakes represent a major global public health problem which cause not only injury, death and destruction (Lai, et al., 2004), but also have a severe impact on survivors' mental health (Tian, et al., 2018).

Two recent Italian earthquakes and their consequences are taken into analysis for the purpose of this PhD research project; Italy is considered one of them most seismic countries in Europe.

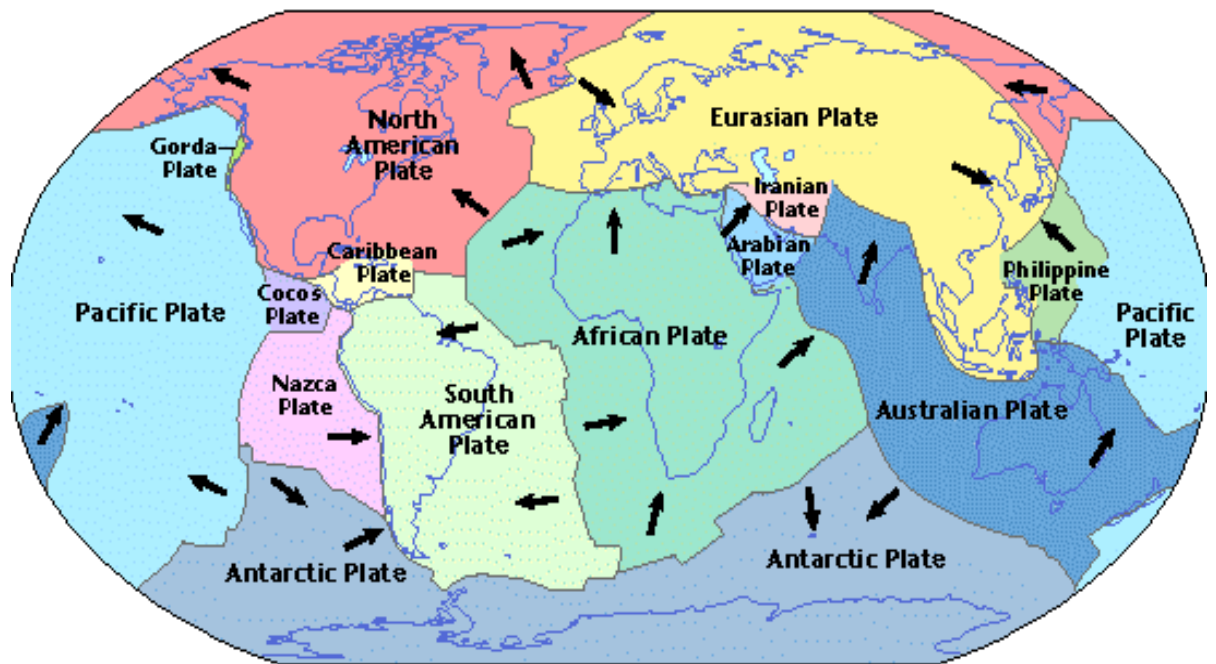
### **1.1 Earthquakes: theory and risk factors**

In 1915, Alfred L. Wegener introduced a theory that completely revolutionised our understanding of the planet Earth: the continental drift. This theory then became the foundation for the development of the current theory of the tectonic plates years later. Wegener's theory claimed that the present-day continents and oceans are not permanent features of the planet Earth. The continents are in fact the result of the break that 200 million years ago occurred in the big monolithic landmass called Pangea. Each piece of this landmass

started to slowly drift in different directions until they finally reached their current state.

The Earth's surface is divided into seven massive plates and several smaller ones. All of these plates constantly move relative to each other. Every time the plates come in contact with one another, a stress begins to build up. Where the accumulated stress reaches a point where it needs to be released, catastrophic events occur. These events include volcanic eruptions and earthquakes, which can also trigger other tragic events such as tsunamis.

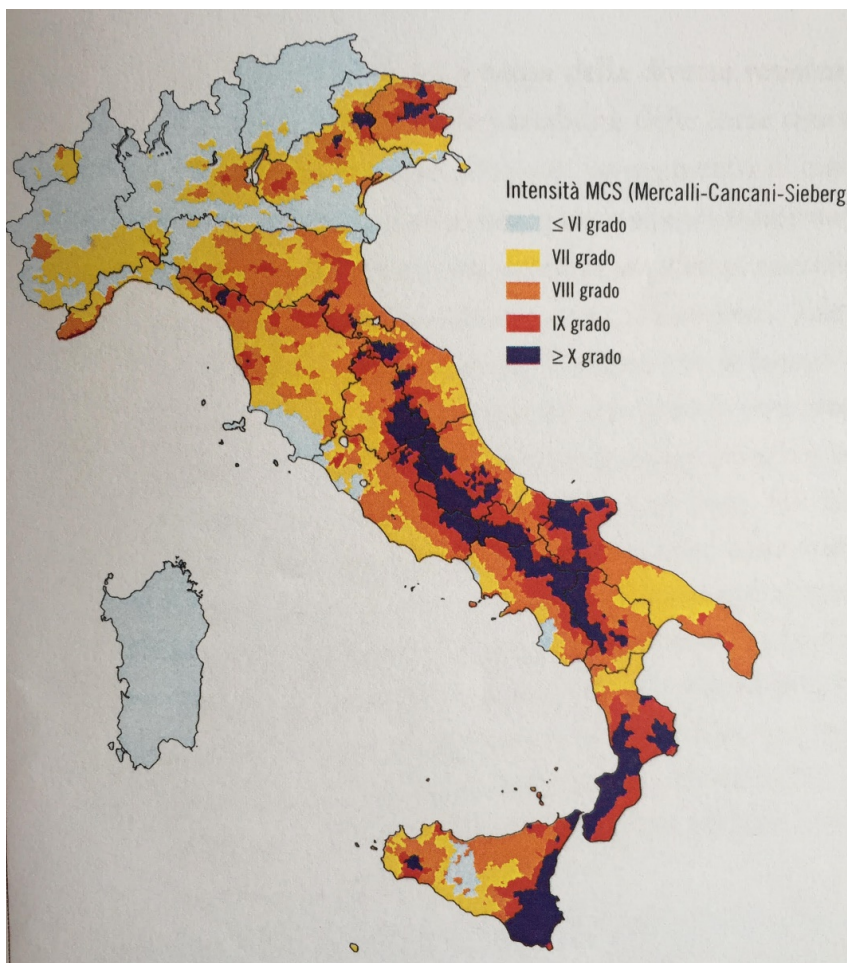
The areas of Earth where earthquakes and volcanic eruptions are most likely to happen are those on the edge of the tectonic plates, such as Japan, California, Italy, Peru, Chile, Indonesia and Greece. Figure 1.1 shows the different tectonic plates and the direction they are moving towards.



**Figure 1.1** *The world tectonic plates (retrieved from geologypage.com)*

Italy is one of the most seismically active countries in Europe with a long history of large earthquakes. Bosellini (2005), in his book on the geological history of Italy, explains that the Mediterranean Sea is one of the most seismic areas on Earth because it is located on the edge of two big tectonic plates: the Eurasian and the African plates. These two plates are slowly pushing towards each other causing severe earthquakes all around their edges. The areas of the country that are mainly at risk are those around the entire Apennines range, Sicily and few parts of the Alps (Carnia and Friuli). Along the Apennines, the region is home to many smaller shifting plates which create trembling beneath the ground. Unfortunately, it is still not possible to predict earthquakes, but we can now evaluate the seismic risk of a specific area. Boschi and Dragoni (2005) have drawn the map of the Italian seismic risk (Figure 1.2) by analysing the several

earthquakes that have affected the country in the past. The different colours represent the different intensities (on the Mercalli – Cancani – Sieberg scale) at which an earthquake can occur in Italy based on location. When looking at the map, it becomes evident that Central Italy is the most at risk area as indicated by the darkest colour on the map ( $\geq X$  grado meaning equal to or greater than 10<sup>th</sup> degree on the scale).



**Figure 1.2** *Seismic Risk Map of Italy (retrieved from “Tutto quello che dovete sapere sul terremoto” Boschi & Dragoni, 2005)*

The authors explain that the seismic risk of an area can be divided into three fundamental factors: the “hazard”, which is strictly related to the event itself and not to the people living in the area; the “vulnerability”, which represents the likelihood of the building in the area to be damaged or destroyed during the event and this depends on how they were built in the first place; and the “exposure”, that looks at the population density and the impact of the earthquake on the socio-economic structure of the affected area.

To evaluate these factors is extremely complex. Scientists have to explore not only the intensity of the event itself, but also what value the community gives to their territory. Therefore, the seismic risk of an area can drastically change from one community to another. Boschi and Dragoni (2005) explain that Italy is characterised by a moderate “hazard”, but by a high “vulnerability” and “exposure” due to the historical and cultural heritage the country is famous for. Italy has been the starting point of several phenomena of international importance such as the Magna Graecia, the Roman Empire, the Roman Catholic Church, the Renaissance, the Risorgimento, and more. Italy’s rich history of architecture, with many of its monuments and buildings (such as statues, churches, ruins) dating back more than 1500 years, leaves many of its villages vulnerable whenever an earthquake hits. Many are the monuments and buildings that have been destroyed by earthquakes throughout Italy’s history, this meant that their story could not be passed on from one generation to the next.

### **1.1.1 The earthquakes of L'Aquila and Amatrice**

On 6<sup>th</sup> April 2009 at 3.32 am, an earthquake of magnitude 6.3 on the Richter scale killed 309 people and destroyed the city of L'Aquila. More than 1600 people were injured and almost 66000 people lost their homes. A few years later, on 24<sup>th</sup> August 2016 at 3.36 am, an earthquake of magnitude 6.0 completely destroyed three towns around the area of La Valle del Tronto: Accumoli, Amatrice and Arquata del Tronto. Amatrice had the most deaths, 236; Arquata del Tronto lost 51 and Accumoli had 11 deaths. More than 2000 people lost their houses and around 388 survivors were injured during the event.

On the 30<sup>th</sup> October 2016 at 7.40 am, an earthquake of magnitude 6.5 destroyed part of the towns of Norcia, Preci, and Castel Sant Angelo sul Nera but no deaths were reported. However, this event has been classified as the strongest earthquake in Italy since 1980 (Casalini, et al. 2016) and it was also felt by many of the towns nearby, including L'Aquila and Amatrice. On the 18<sup>th</sup> of January 2017, the residents of L'Aquila had to once again deal with the fear of the earthquake since an event of magnitude 5.5 struck in their area (Casalini & Riccardi, 2017).

L'Aquila and Amatrice, even if geographically very close to each other (30 miles apart), differ on several aspects. L'Aquila is the capital of Abruzzo, a lively and busy town with more than 70,000 residents; its university attracts many students and it was famous across Italy for its historical town centre which included 90 churches, and many restaurants, bars, pubs, shops.

Amatrice is part of the borough of Rieti, and it is constituted of 69 smaller villages separated by the mountains; circa 2,000 people lived in the area with some of the villages only being home to less than 50 people. Both earthquakes happened at night (around 3.30 am) and both town centres were mostly or completely destroyed as a consequence. L'Aquila's residents have slowly moved to the outskirts, while many of Amatrice's villages are currently empty.

## **1.2 History of Psychological Trauma**

Several studies have been carried out exploring the psychological consequences of natural disasters, and especially earthquakes, on affected populations (Madianos & Evi, 2010). Many of these studies suggest that disasters' survivors are likely to exhibit some form of post traumatic symptoms following the event (Bhushan & Kumar, 2007; Asshraf, 2005; Giannopoulou, et al., 2006).

Often the word trauma is adopted to refer both to negative events that produce distress and to the distress itself. However, the word trauma only refers to the specific event, and not to the impact it has on the individual which is instead defined as psychological trauma (Briere & Scott, 2006). Exposure to trauma is common to all societies worldwide (Magruder, et al., 2017). It has been extensively demonstrated that the majority of adults will experience at least one traumatic event in their life (Benjet, et al., 2016).

Studies on trauma and its consequences started in the late 19<sup>th</sup> century when Sigmund Freud introduced his theories on the aetiology of hysteria, the core

dynamics of traumatic neuroses and sexual trauma (Herman, 1992). In his work, *Beyond the Pleasure Principle* (1920), Freud explained that trauma can potentially breach the stimulus barrier and overwhelm ego defences leading to psychological trauma that can then impact on individuals' behaviours (e.g. manifestations of compulsions). Freud identified many psychiatric symptoms as manifestations of early childhood traumas. His early work on trauma involved the concept that children were sexual beings from birth onwards, and that the sexual instinct was one of the basic libidinal forces that led to intrapsychic conflict which could then lead to neurotic symptoms (Wilson, 1994). Freud's emphasis on children's sexuality as a cause in later life of neurosis was not well received in conservative Vienna and therefore subject to criticism and peer pressure (Jones, 1953, p. 287 – 319). However, in 1917, during World War I (1914-1918) and prior World War II (1939-1945), Freud had already identified and discussed all of the criteria of what later became the Posttraumatic Stress Disorder (PTSD) diagnosis included for the first time by the American Psychiatric Association in the Diagnostic and Statistical Manual of Mental Disorders 3<sup>rd</sup> Edition in 1980. Even though Freud's theories were very relevant, they still remained extremely controversial for his time and this became a barrier for further studies on the psychological impact of traumatic events.

Studies on trauma became more accepted when the need to analyse soldiers' reactions to the horror of war became a priority; the purpose of these studies was to find valid interventions that could help soldiers in their rehabilitation process and return to battle (van der Kolk, 2007). Research into the



psychological impact of World War II experiences were very common in the first years after the end of the war (Swank, 1949; Brill, 1946; Glass, 1953). These studies indicated the need for a distinction between those individuals who succumbed to psychological distress during the war; and those who cope throughout the war, but then showed symptoms after years of apparently normal functioning (Hunt & Robbins, 2001).

Kardiner (1941) treated traumatised US war veterans and claimed that any man, regardless of their moral character, could have been affected by the atrocities of the war and that the traumatic symptoms (e.g. flashbacks) were a natural consequence of having experienced something unbearable. Kardiner realised that the most powerful form of intervention against traumatic symptoms was based on the relationship between soldiers and their comrades; Kardiner explained that having closer relationships between each other have helped soldiers to deal with the atrocities of the war. The interest in the psychological impact of war-related trauma, however, diminished quite substantially after the early 1950s until again gaining interest after the Vietnam War (1955-1975) (Horowitz & Solomon, 1975). The time between WWII and the Vietnam War gave the opportunity to differentiate between chronic syndrome and short-term stress reactions (Hunt & Robbins, 2001). Alongside post-war studies, sexual and domestic violence towards women and children gradually gained their attention too (Herman, 1992). Both types of traumatic events led in the end to the development of the Posttraumatic Stress Disorder (PTSD) diagnosis (DSM-III, 1980).

Since Freud, the research conducted on what psychological trauma is and its possible consequences has gradually expanded. Currently, our understanding of psychological trauma involves a more holistic approach which includes biological, psychological and social aspects. Studies carried out on veterans have demonstrated that developing PTSD can have genetic components (True, et al., 1993). People who are affected by PTSD might have some biological vulnerability. For example, they might have smaller or under-developed hippocampus which plays an important role in memories related to emotions (Bremner, et al., 2003). Some individuals seem to be more psychologically susceptible to trauma-related psychopathologies (e.g. PTSD) compared to others (Davey, 2014). For example, people who grew up in abusive environments are more likely to develop trauma-related psychopathologies later on in their life (King, et al., 1996). Smelser (2004) talked about cultural trauma and described it as an invasive and overwhelming event that can affect one or more aspects of a culture; cultural traumas are not things, but processes made of meaning making and attribution, individuals give them meaning and try to manage their consequences. Smelser explained that because it all depends on what meaning people give to cultural traumas, events that may not be traumatic for one society, might be traumatic for others.

### **1.2.1 Potentially Traumatic Events**

When talking about trauma, the DSM 5<sup>th</sup> Edition (American Psychiatric Association, 2013) defines a traumatic event as the “... *exposure to actual or*

*threatened death, serious injury or sexual violence ...”* (PTSD, Criterion A, p. 271).

Overstreet and colleagues (2017) have analysed the predictors and mental health outcomes of those events classified as “Potentially Traumatic Events” (PTEs). PTEs include natural disasters, house or other domestic fires, motor vehicle accidents, rape and sexual assault, physical assault, torture, child abuse and many more (Briere & Scott, 2006).

Although PTEs are associated with an increased risk for psychopathology (i.e. PTSD, anxiety disorder, panic disorder, borderline personality disorder, psychosis, depression and substance misuse) (Amstadter, et al., 2013), research has demonstrated that the development of psychopathologies such as PTSD is relatively rare, usually between 5 and 10% in general population (Creamer et al. 2001, Lloyd & Turner 2003, Kessler et al. 2005). The majority of those exposed to traumatic events seem to fully recover from any symptoms within a reasonable period of time (Shalev, 2002) and live their life without major disruption to their normal ability to function (Bonanno, 2004). Therefore, when looking at PTEs and their impact on individuals, research should not only focus on the specific link between them and the development of different psychopathologies, but have a more rounded approach which involves taking into consideration all of those aspects that could have led an individual to experience psychological distress (which does not necessarily mean developing a psychiatric diagnosis) in the aftermath of such events. In 2018, the Division of Clinical Psychology of the British Psychological Society published the Power Threat Meaning Framework which aims at “... *constructing a non-diagnostic, non-blaming, de-mystifying*

*story about strength and survival, with the potential to re-integrate many behaviours and experiences which would currently be diagnosed as symptoms of mental disorder back into the range of universal human experiences. The overall message is: 'You are experiencing a normal reaction to abnormal circumstances ...' (p.18).*

In fact, the impact that a traumatic event can have on an individual depends on several variables such as individual variables, early environments, peer deviance, social support and community features. In terms of individual variables, the likelihood of experiencing specific traumatic events varies by gender, age, race/ethnicity and sexual orientation (Magruder, et al., 2017). For example, men have been found at greater risk to experience several PTEs (Breslau, 2002); however, women are more likely to develop PTSD symptoms as consequence of trauma exposure (Perrin, et al., 2013). Age has also been identified as an important predictor of negative mental health outcomes. Individuals in the late adolescence or early adulthood are more likely to develop psychiatric symptoms after having been exposed to PTEs (Breslau, et al., 1998a). Personality factors can also impact on the reaction people have to PTEs. Personality traits are traditionally explained as dimensions of individual differences in tendencies to show consistent patterns of feelings, thoughts, and actions across developmental periods and contexts (McCrae & Costa 2003). This dimensional model claims that there are individual differences in personality structure regarding their vulnerability or resilience to mental distress (e.g. PTSD). For those who are on the extreme vulnerability end of the continuum, a smaller

amount of stress or trauma is needed for mental disturbances to appear, while resilient individuals would have to experience more severe stress or trauma before they develop PTSD or some other psychiatric illness (Jakovljević, et al. 2012). Therefore, resilience and the ability of a person to endure adversity play an important role in minimising the impact of trauma exposure (Bonanno, et al., 2007). When looking at individual variables, it is important to keep in mind that each individual will react to different events in different ways (Harms, 2015). In some cases, individuals might even react positively by looking at the traumatic event as an opportunity to increase wisdom (Hunt, 2004). In terms of early environments, poor perceived parenting (Lima, et al., 2014) and permissive or authoritarian parenting styles (Yeates, et al., 2001) have been associated with increased risk to develop a psychiatric disorder as a consequence of PTE exposure. Finally, low levels of perceived social support have been associated with greater risk to develop PTSD, depression, and alcohol misuse after trauma exposure (Meyer, et al., 2012). Secure relationships (Tsai, et al., 2012) and higher levels of perceived social support (Pietrzak & Cook, 2013) improve psychological resilience and minimise the likelihood to develop psychiatric symptoms post-trauma.

In summary, potentially traumatic events can differ in type and frequency and their psychological impact depends on all of the above variables; several are the symptoms and psychiatric disorders that have been associated with exposure to traumatic events; examples are PTSD, Depression and Anxiety (Briere & Scott, 2006).

When analysing traumatic events and their impact, it is fundamental to note that not all psychological traumatic consequences can be categorised inside specific psychiatric criteria and disorders; PTSD, for example, still remains one of the most controversial diagnostic entities in psychiatry and in medicine in general (Jakovljević, 2012). Trauma can change the meaning of people's lives and can produce feelings and experiences that cannot be easily explained by one single diagnosis (Briere & Scott, 2006). Psychological trauma can impact on someone's spirituality, ability to hope, trust, or care about oneself and others (Herman, 1992). Traumatic events do not only have a psychological impact on individuals, they also affect people's quality of life and perception of the world. Therefore, looking only at the psychological aspects of such overwhelming events cannot lead us towards a full understanding of what it really means for people having to go through such tragic and life-changing experiences.

### **1.2.2 Research on post-disaster psychopathologies**

Among the Potentially Traumatic Events listed above, natural disasters are large-scale events that affect millions of people around the globe every year (Goldmann & Galea, 2014) and can cause unexpected death, trauma and destruction (Neria, et al., 2008; Norris, et al., 2002). Disasters usually share three main characteristics: they threaten harm or death to a large group of people (Neria, et al., 2008); they cause disruption of services and social networks (McFarlane, Van Hooff, & Goodhew, 2009); and they can cause several mental and physical health problems to those affected (Neria, et al., 2008).

Over the years, research on the psychological consequences of large-scale community disasters has slowly evolved beginning with studies in the 1940s of the symptoms and management of acute grief and other neuropsychological concerns (Adler, 1943). One particular aspect that has received increasing attention is the incidence of post-disaster psychopathology (Garrison, 1985). Rubonis and Bickman (1991) have identified three reasons why post-disaster psychopathology research is fundamental. First, research on this matter helps to better understand the link between community catastrophes and psychological impairments. Second, it helps to identify appropriate interventions designed to reduce post-disaster psychological problems. Third, it promotes the distribution of appropriate funds to disaster-area community mental health centres. Several psychological diagnoses have been identified among disasters' survivors, such as anxiety, depression and most notably posttraumatic stress disorder (Norris, Friedman, & Watson, 2002). Survivors can develop one or more of these psychopathologies, psychiatric comorbidity is in fact very common among earthquake's survivors (Brady, et al., 2000).

Multiple factors contribute to the development of mental illness in disasters' survivors (Goldmann & Galea, 2014). These are: demographic factors (such as gender, age, economic status, education and intellectual disadvantage) (Zhang, et al., 2011); pre-disaster factors (such as psychiatric history, early traumatic experiences, negative parenting as role models) (Brewin, Andrews, & Valentine, 2000); during disaster factors (such as trauma severity, loss of a loved one, loss of property, witnessing someone being killed by the event) (Ma, et al., 2011);

and post-disaster factors (such as community disruption, lack of social support, living in temporary house, life stress) (Breslau, et al., 1998b). Although the degree to which these risk factors can predict the development of mental illness and more specifically PTSD among natural disasters' survivors is still not clear, strong correlation has been identified with some demographic characteristics, such as being female (Gigantesco, et al., 2013). Individuals' internal and external stressors (Brewin & Holmes, 2003) seem to have an important impact on the development of post-disaster psychopathologies. External stressors, such as economic difficulties, relocation and death of a loved one, are associated with higher risk of PTSD among victims of natural disasters (Kun, et al, 2009).

While all of these factors have been demonstrated as having a fundamental impact on individuals' well-being in the aftermath of a natural disaster; psychological research often seems to overlook the influence post-disaster factors, such as community and social support might have, not only on survivors' recovery, but also on the actual development of psychiatric diagnosis (such as PTSD and Depression). This is surprising since these factors appear to be extremely valuable for individuals and communities worldwide. Higher levels of social support may in fact protect disasters' survivors against the development of severe mental illness in the face of stressful events (Brewin, Andrews, & Valentine, 2000). Being part of a community, sharing values and traditions, and supporting each other have been gradually recognised as having a central role in people's life.



### **1.2.3 Research on earthquakes and psychopathologies**

Among the most dangerous natural disasters, earthquakes represent a major global public health problem; they strike quickly and are completely uncontrollable affecting entire populations by leaving injury, death and destruction (Lai, et al., 2004). Post-traumatic stress disorder (PTSD) (American Psychiatry Association, 2013) is one of the most analysed aspects by researchers interested in the psychosocial impact of earthquakes (Naeem, et al., 2011). Most of the studies suggest that earthquake's survivors are highly likely to be diagnosed with PTSD after having experienced the traumatic event (Asshraf, 2005); this becomes even more likely when they do not receive appropriate psychological support within a set period of time (Yule, 2002). The prevalence of PTSD symptoms found within earthquakes' survivors ranges between 13 to 95% (McMillen, North, & Smith, 2000). This means that a considerable proportion of survivors are at risk of developing the characteristic symptoms of post-traumatic stress disorder (Lai, et al., 2004) which could potentially lead to impairments to their relationships, work, and leisure activities (Kessler, 2000).

Naeem and colleagues (2011) looked at the prevalence of PTSD in a randomly selected sample of participants who experienced the 2005 northern Pakistan and Kashmir earthquake. Data was collected eighteen months after the earthquake and 1298 people participated in the study. Diagnostic assessments included: Screening Instrument for Traumatic Stress in Earthquake Survivors (SITSES) (Basoglu, et al., 2002) which measures the effects of earthquake-related psychological trauma and the prevalence of PTSD; the Urdu version of the Self-

reporting Questionnaire (SRQ) (Husain, et al., 2007) which looks at common mental disorders; the Brief Disability Questionnaire (BDQ) (Rahman & Creed, 2007) which measures health related disability; and some other variables were also assessed such as socioeconomic status, family structure, past mental health, severity of trauma exposure, losses due to earthquake and rehabilitation status. Results showed that 55.2% women and 33.4% men had PTSD. The dose of exposure to the earthquake was significantly associated with PTSD symptoms, while living in a tent was associated with both PTSD and other psychiatric symptoms. One protective factor against the development of PTSD was living in a joint family system, it was described by participants as an important source of support in their culture.

Even though PTSD is the most studied psychopathology after an earthquake, other psychopathologies can severely affect earthquakes' survivors. Askari and Rowell (2015) studied the prevalence of psychopathology and socio-demographic characteristics among survivors of the 2012 Eastern Azerbaijan earthquake. The study was conducted two months after the event and 801 adults participated in the study. Measures utilised were the Persian version of the General Health Questionnaire (GHQ; Goldberg & Williams, 1988) which looks at physical health, anxiety, social functioning and depression; the Persian version of the Symptom Checklist 90-Revised (SCL-90-R; Derogatis, 1994; Hosseini & Mosavi, 2000); Disaster Experience Scale (DES) which included perceived threats to life during and immediately after the earthquake, losses, perceived stress, support satisfaction and fear of another earthquake; and Demographic Data

Sheet with information regarding participants' age, education, gender and history of psychiatric or physical problems. The prevalence of psychological disorders in this population was 75%; 23% had Acute Stress Disorder (ASD), 10% had anxiety symptoms, 7,5% had depression, 4% had mixed anxiety depression disorder (MADD), 5% had psychosomatic disorders, 10% had phobia, 7% showed aggressive behaviours and 10% suffered from insomnia.

#### **1.2.4 Research on L'Aquila and Amatrice earthquakes**

Even if Italy represents one of the most seismic countries in Europe, not much research has been conducted on the psychological and social impact of earthquakes on Italian survivors and communities.

Some research has been conducted on both the 2009 L'Aquila and the 2016 Amatrice earthquakes; most studies' main focus was the psychological and individual impact that both earthquakes have had on participants (e.g. prevalence of PTSD). Some information was gathered regarding post-disasters factors such as being relocated and living in temporary housing. No attention was focused on other post-disasters factors such as community disruption, the impact the earthquakes had on participants' access to social support and how these two elements might have affected survivors' quality of life and mental health in the aftermath.

Dell’Osso and colleagues (2011a) investigated the prevalence of full and partial PTSD (where partial PTSD included all those subjects who did not fulfil all the criteria B,C and D of the DSM-IV for PTSD, but only a subset of them) in 512 adolescents attending the last year of high school in L’Aquila 10 months after the 2009 earthquake and explored the gender differences in these prevalence rates. Symptoms of PTSD were self-rated on the Impact of Event Scale-Revised (IES-R) (Horowitz, Wilner, & Alvarez, 1979) and the Trauma and Loss Spectrum-Self-report (TALS-SR) (Dell'Osso, et al., 2009). Their results showed that 192 participants (37.5%) presented a diagnosis of PTSD according with the DSM-IV-TR (American Psychiatric Association 2000), with a significant difference between women and men (respectively 51.7% and 25.7%). Partial PTSD was instead found in 153 participants (29.9%) but no significant difference was noted between women and men in this case. Dell’Osso and colleagues (2011b) also looked at the association between the loss of a close friend or a relative with higher full and partial PTSD rates in a sample of 475 young adults 21 months after the event. The same assessment measures were adopted in this study. A total of 146 participants (30.7%) presented a diagnosis of full PTSD with a significant difference between women and men (respectively 47.3% and 18.4%); while 149 had a diagnosis of partial PTSD with a weaker difference between women and men (respectively 36.5% and 27.6%). Seventy-two participants experienced the loss of a loved one and of these, 32 (44.4%) had a diagnosis of full PTSD and 19 (26.4%) had partial PTSD. No information was gathered on the kind of relationship the participant had with the loved one lost during the earthquake, whether they experienced more than one loss, and whether they

experienced other important losses such as their homes and what kind of impact all of these aspects might have had on their quality of life post-earthquake.

Cofini and colleagues (2015) looked at the prevalence of PTSD among those individuals who, as a consequence of the 2009 L'Aquila earthquake, had lost their homes and were forced to live in temporary housing; and at the different coping strategies adopted by those who had, and those who did not have, a diagnosis of PTSD more than one year after the earthquake. A total number of 281 individuals took part in the study. Subjects were assessed through the Davidson Trauma Scale (DTS) (Davidson, et al., 1997) which measures the frequency and severity of PTSD-related symptoms, and the Brief Cope (BC) (Carver, 1997) which looks at the coping styles people use and how they respond to stressful situations. The prevalence of PTSD among the 281 participants was 43% (women and the unemployed were more likely to meet the criteria for PTSD). The major finding was the differences found in coping styles for those with and those without a diagnosis of PTSD. The former was more likely to adopt maladaptive coping strategies (e.g. avoidance) to deal with the consequences of the earthquake than those without a diagnosis. Similar studies have demonstrated that constructive coping strategies, such as a positive restructuring and seeking emotional support, allow an optimistic adjustment to stress (Linley & Joseph, 2004).

Grappasonni and colleagues (2017) conducted an interesting study on the prevalence of mental and psychosocial disorder and perceived quality of life in

survivors of the 2009 L'Aquila earthquake who had to be relocated in places called the "New Towns" or "Progetto C.A.S.E". These latter are housing units which are earthquake proof, sustainable and eco-compatible. This study was conducted over a period of 2.5 years and three New Towns out of the total 19 districts were selected. A total number of 107 people participated in the study. A structured questionnaire was used to identify socio-demographic data, experience of stressful events, mental distress, prevalence of PTSD and quality of life. The Brief Symptoms Inventory (BSI) (Derogatis & Melisaratos, 1993) was adopted to analyse symptoms of mental distress, the Impact of Event Scale-Revised (IES-R) (Horowitz, Wilner, & Alvarez, 1979) was utilised to assess PTSD symptoms, and the Manchester Short Assessment of Quality of life (MANSA) (Priebe, et al., 1999) was used to assess participants' subjective quality of life (SQOL). Results show that the prevalence of mental disorders and levels of symptoms were high. The SQOL, measured through MANSA scale, showed levels of dissatisfaction relating to participants' financial status, occupation, leisure time, health and living situation. Participants described the Progetto C.A.S.E as "non-places" with no familiar aspects and that has had an impact on their quality of life post-earthquake. It is evident through this study how important it is for survivors of disasters to be surrounded by familiar elements from their life in order to achieve a better quality of life both in the immediate and long-term aftermath.

Of the few studies conducted in Amatrice, Maslovaric and colleagues (2017) looked at the effectiveness of Eye Movement Desensitization and Reprocessing-

Integrative Group Protocol (EMDR-IGTP) (Jarero, et al., 2006) to prevent the development of PTSD in adolescent survivors of the 2016 Central Italy earthquake (Amatrice-Norcia-Visso). The EMDR-IGTP combines the standard EMDR therapy (Shapiro, 2001) with a group therapy model (Jarero, et al., 1999); this allows the EMDR approach to be utilised on a wider group of people and obtain more successful results (Jarero, et al., 2008). The protocol utilised in this study was modified by Maslovaric and Fernandez (2016) in order to fit the Italian population and context. A total number of 116 adolescents (age 13-20) participated in the study. Pre and post assessments were administered to measure PTSD and negative emotions; assessments included the Impact of Event Scale-Revised (IES-R) (Horowitz, Wilner, & Alvarez, 1979) and the Subjective Units of Disturbance scale (SUD) (Wolpe, 1969). Results from the IES-R showed that the EMDR-IGTP is a valid intervention to reduce PTSD symptoms in participants. Results from the SUD showed a significant reduction in emotional distress.

Massazza and colleagues (2019) looked at the relation between attributions of blame or cause to God and other entities (e.g. the State, building firms, the mafia) with greater rates of psychopathologies among survivors of the 2016 Amatrice earthquake. While causal attributions represent those beliefs about what logically led to a specific outcome, blame attributions are linked with whether this happened in an immoral way or not (Malle, et al., 2014). The authors mainly explored which entities were deemed responsible for the earthquake's damage by survivors, and the association between attributions of

cause and blame towards different entities and levels of psychological distress. A total number of 127 survivors agreed to participate to the study. The Italian version of the Depression, Anxiety, and Stress Scale – 21 (DASS – 21; Bottesi, et al., 2015) was used to measure rates of depression, anxiety, and stress; the PTSD Checklist for DSM-5 (PCL - 5; Weathers, et al., 2013) was used to test for symptoms of PTSD; the Mercalli scale (Fergusson, et al., 2014) was used to measure direct exposure to the earthquakes; the Conservation of Resources Evaluation (COR – E; Hobfoll & Lilly, 1993) was used to assess the extent of actual loss, threatened loss, or gain in resources in the previous six months; finally, the Blame and Causal Attribution questionnaire (Lagnado & Channon, 2008) was used to explore survivors’ attributions of blame and cause to different entities (including God, the State, Nature, Oneself). Results showed how blame and cause attributions towards God and chance were positively and significantly correlated with higher scores on both the PCL-5 and the DASS-21, while seeing oneself as a cause correlated with DASS-21 scores only. Attributions to the State, building firms, the mafia, and the municipality were associated with significantly greater ratings of blame than cause, whilst attributions to nature and chance were associated with significantly greater cause than blame attributions. This might be explained by factors such as intentionality, foreseeability, and morally questionable motives. Finally, results showed a positive relationship between the attributions to God and psychopathology. The authors hypothesised that attributions to God reflect a broader shattering of world-view assumptions (Janoff-Bulman, 1989); what was likely to be perceived as a benign entity (God), could potentially punish humans in such a harsh way.



Although all of these studies are very relevant and interesting, they do not focus any attention on the factors that play a fundamental role in survivors' quality of life and mental health after a traumatic event, and especially after a natural disaster. Unfortunately, social support and community disruption are still largely dismissed in Italian research which seems quite startling considering that Italians are known worldwide for their old traditions, warm communities and social-orientated personalities. The importance of community and social support became even more evident when the author looked at the psychological and social consequences of the 2009 L'Aquila earthquake on survivors for the Applied Research Project part of a MSc (D'Errico, 2014) (supervised by Dr Hunt).

As PTSD is considered the most studied and prevalent psychiatric disorder post-natural disaster (Naeem, et al., 2011), the author investigated the prevalence of PTSD symptoms (e.g. avoidance, flashbacks, arousal) and the difference between those who had lost a loved one during the event and those who did not through the use of semi-structured interviews. After the first few interviews, it became clear that participants' discussion did not lead towards an understanding of the prevalence of PTSD symptoms. Most of the interviews began to concentrate on participants' lost sense of community and lack of social support. Their community life had completely been affected by the event due to the disruption of all their meeting points (restaurants, market, squares, town centre). This loss was clearly devastating; it completely affected their own and their community's quality of life. The community disruption automatically led to lack of social support (it became more difficult for people to meet up as frequently as before

the earthquake due to the lack of meeting points); loss of traditions (e.g. the fruit and vegetables market could not happen anymore due to the main town square been destroyed during the event and became inaccessible in the aftermath); and relocation of survivors (participants described how everyone had to move away from the town centre and L'Aquila more in general; some people had to move into the Progetto C.A.S.E – apartment complex, some to hotels on the coast, and some others decided to leave L'Aquila and move to different houses they already owned in other towns).

It became quite clear that looking at PTSD symptoms and individual aspects alone was not enough, and this could potentially affect our understanding of the impact that earthquakes, and other natural disasters, have on survivors and their communities. It is for this reason, that this PhD research focuses on the impact of earthquakes on communities as a whole, rather than looking at PTSD or other psychiatric diagnoses.

### **1.3 Social and Community Impact**

Earthquakes can cause severe community disruption, and negatively impact on the way in which people support one another and interact with their environment.

### **1.3.1 Social Identification**

Turner (1985) defines a group as two or more people who are somehow socially and psychologically interdependent. Such interdependence leads to social interactions, communication, and influence between individuals. Identification within a specific social group has an important impact on individuals' self-concept; it helps them to build their own social identities (Franzoi, 2003). By having social identities, human beings feel situated within clearly defined groups (Deaux, et al., 1995; Mussweiler & Bodenhausen, 2002) that can provide a shared set of values, beliefs, and goals about themselves and their social world (Franzoi, 2003). Identifying with a social group has been widely demonstrated to impact positively on people's health and well-being (Haslam, 2014). The more social relationships and networks one individual has, the better their well-being and health (Cohen, 2004; Smith & Christakis, 2008). This consequently means that being able to identify ourselves with specific social groups will improve our coping and resilience skills when it comes to having to deal with stressful challenges (Khan, et al., 2014). Keyes (1998) claims that social integration represents the extent to which individuals feel that they have something to share with the other members of their community (values, meanings, support, beliefs). Keyes continues by explaining that individuals who feel integrated in their community, will perceive their neighbourhood as trustworthy and safe.

Khan and colleagues (2014) investigated the relationship between social identification with a specific group, beliefs about coping, and well-being in a survey administered in a Hindu community in rural North India. A total number

of 792 participants engaged in the survey and all of them self-categorised themselves as Hindu. Questions focused on the level of social identification as a Hindu; perception of efficacy in dealing with everyday stressors; well-being; engagement in religious practices, and perceptions of their social standing within the community. Their results pointed to a positive relationship between social identification as a Hindu and one of the measures of well-being (self-assessed health), but to no relationship with other well-being measures (psychological and physical symptoms of ill-health). However, they found that participants' social identification as a Hindu was linked to better well-being through its association with participants' judgements of their own stress-related self-efficacy. That means that as participants' social identification as a Hindu increased, they automatically reported greater stress-related self-efficacy and better well-being. Participants felt they were more capable to deal with the challenges of their everyday life.

Social identification can give people's life meaning, connect individuals to each other, and prompt social support.

### **1.3.2 Sense of community and natural disasters**

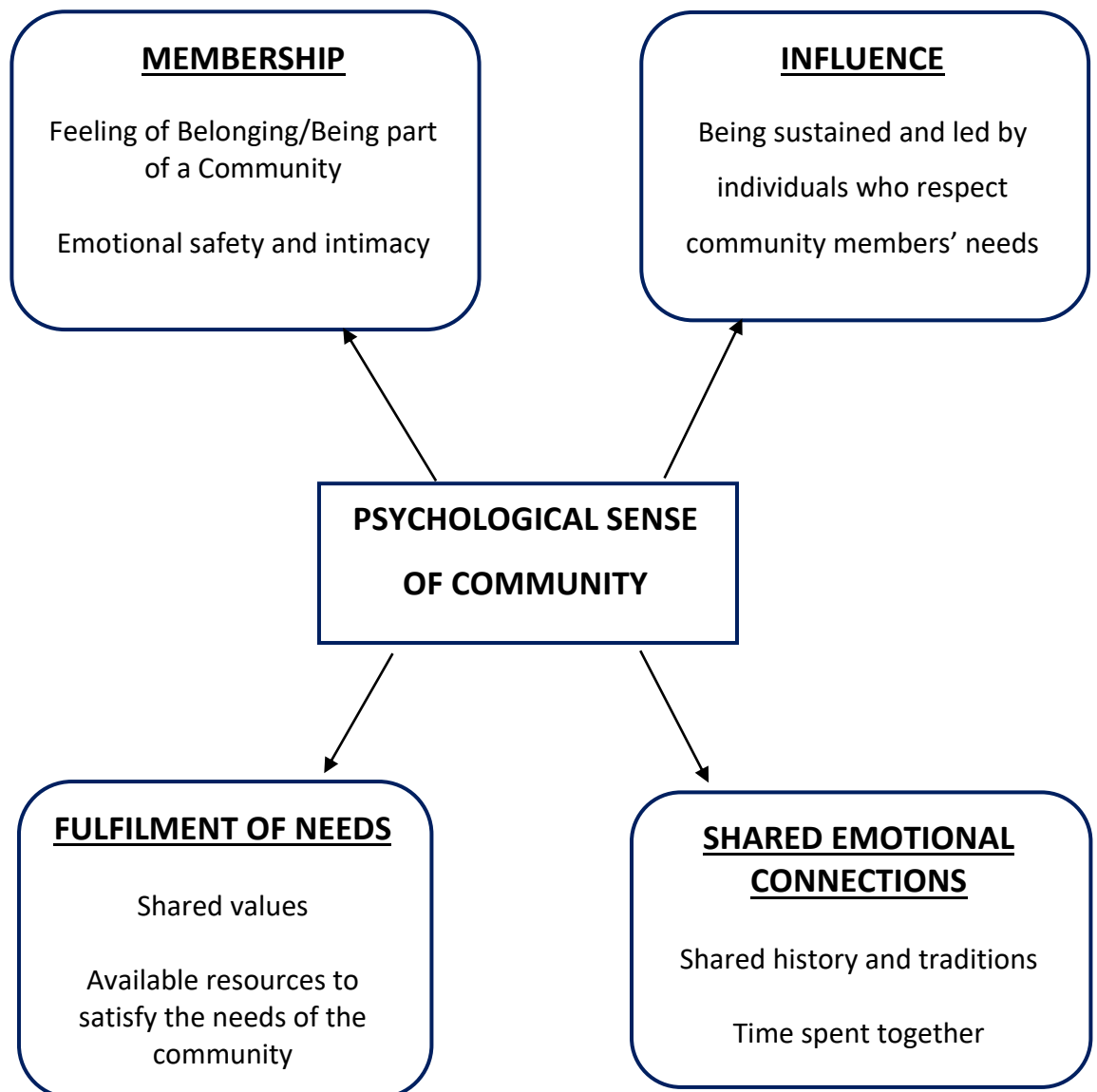
When a natural event happens, and entire communities are destroyed as a consequence, survivors' relationships with their neighbourhoods change. Their trust in their own environment is severely affected and that may have a major impact on their psychological, physical and social well-being.

Psychologists frequently focus their attention on the psychological and more individual impact natural disasters have on survivors. Research has shown that factors such as sense of community (Huang & Wong, 2014), economic capability (Xu & He, 2012) and social support (Oyama, et al., 2012) play a fundamental part in minimising the mental health issues arising after a natural disaster (Hogg, et al., 2016). Living in a disrupted community (Dorahy, et al., 2015) and having experienced home destruction and material loss can in fact lead to more severe post-traumatic stress symptoms (Bergiannaki, et al., 2003). Community networks function as a form of informal insurance, which means that residents of the affected area can turn to each other for information and support during times of emergency (Aldrich, 2012). Community cohesion in fact gives the opportunity to survivors to exchange important information (Hikichi, et al., 2016), and to share instrumental (Gruebner, et al., 2015) and emotional support (Cramm & Nieboer, 2015).

Sarason (1974) was the first author to talk about psychological sense of community (PSOC) by explaining that PSOC is *“the sense that one was part of a readily available mutually supportive network of relationships upon which one could depend and as a result of which one did not experience sustained feelings of loneliness...”* (p. 1). Since Sarason’s definition of PSOC, several attempts have been made to achieve a full description of psychological sense of community. However, even after more than 30 years of research, McMillan and Chavis’ model (1986) remains the primary theoretical foundation for most studies on PSOC (Mannarini & Fedi, 2009). McMillan and Chavis generated a four-factor

model that defined PSOC. The four components identified are: *membership*; *influence*; *integration and fulfilment of needs*; and *shared emotional connection*.

Figure 1.3 represents a visual summary of McMillan and Chavis 1986 PSOC model.



**Figure 1.3** McMillan and Chavis 1986 PSOC's model

*Membership* is the feeling of belonging and of being part of a community that has boundaries which guarantee emotional safety. 'Boundaries' mean that there are people who belong to the community and people who do not; this provides members with an opportunity to maintain emotional safety, which is necessary to create intimacy between members of the same community. When an earthquake occurs, community members' boundaries might be severely compromised. Their personal space is affected as a consequence of having to share their own environment (e.g. tents) with other people who do not belong to their closely-knit family, but also finding themselves surrounded by people who do not belong to their community and are trying to establish new sets of rules (e.g. government bodies, charity associations, etc.). Community members' emotional safety is affected, and this can become a source of distress.

*Influence* is the acknowledgement that others' needs, values, and opinions matter. People who acknowledge others' needs are usually the most influential group members, while those who become dominant and ignore other members' opinions and needs are normally the least powerful ones.

*Integration and fulfilment of needs* is the feeling that member's needs will be met by the resources received through their membership in the group. Community members come together through a set of shared values which enables them to satisfy their needs and achieve their goals. After an earthquake, community members can be separated in different locations for various reasons

(e.g. safety, lack of infrastructures, etc.); this affects their opportunity to help each other in satisfying their needs.

*Shared emotional connection* is the commitment and belief that members have shared and will share history, common places, time together, and similar experiences. This enables them to create positive relationships. The more people interact, the more likely they are to become close to each other and provide support. When the places where these interactions happen are completely destroyed, community cohesion and members' opportunity to spend time together are severely compromised (e.g. lack of social support).

Through the four-factor model, McMillan and Chavis reached a final definition of PSOC: *"...a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a share faith that members' needs will be met through their commitment to be together"* (p. 9).

Psychological sense of community can be seen by its members as both a resource and a responsibility. As a resource, PSOC has often been associated with two main variables: psychological well-being and community involvement (Nowell & Boyd, 2010). PSOC correlates with several indicators of well-being, including life satisfaction (Prezza, et al., 2001); perceptions of belonging and community connectedness (Sonn, 2002), mental health aspects (Ellaway, Macintyre, & Kearns, 2001) and loneliness (Pretty, Andrews, & Collett, 1994). In terms of community involvement, PSOC prompts its members to get involved in



several community activities (Chavis & Wandersman, 1990), political participation (Hughey, Speer, & Peterson, 1999), and gets them to stay in the same residence for longer (Perkins, et al., 1990). Both these variables are based on the psychological theory of needs (Miner, 2005) that claims that humans are all motivated to act in ways they believe will increase the likelihood for their needs to be satisfied. As a responsibility, PSOC motivates people to act in ways which benefit their communities, sometimes causing substantial cost to themselves; this happens without any expectation to get something back, but rather in pursuit of higher personal ideals and values and sense of responsibility (Perry, 2000).

Sense of community also relates to the special bonding people create throughout their lives not only with the other members of their community, but also with their surroundings. Casey (1998) claimed that all of our lived experiences as humans are essentially place based, and to survive and adapt as a species we need to respond to the place we live in.

The importance of place for human beings has been described by Altman and Low (1992) who introduced the concept of "Place-Attachment". "Place-Attachment" is a complex phenomenon that involves a people-place bonding where people's affects, emotions and feelings are particularly important. "Place-attachment" contributes to individual, group and cultural self-definition and integrity. Human beings meticulously build their homes and communities over time and these become for them a source of familiarity, stability and security.

Cuba and Hummon (1993) described places as confined locales permeated with personal, social and cultural meaning in which people's identity is constructed, maintained and transformed. Places are a fundamental part of people's social world and everyday life; they contribute to the development of people's self and then preserve it (Proshansky, Fabian, & Kaminoff, 1983). Place-attachment prompts people to get socially involved, particularly through their relationships with friends, family members, but also local shopping and organisational membership. Places therefore become the element that allow people to share interests and values as a community (Gerson, et al., 1977; Goudy, 1982).

Although places influence people's identity, they are also transformed through the characteristics people bring to them and the structure of their experiences with places (Cuba & Hummon, 1993). Massey (2005) promotes the inclusion of cultural, economic, political, and environmental aspects when analysing the characteristics of a specific place. Massey has explained how important it is to understand places as constituted by multiple identities which are not simply frozen in time, but processes (discontinuous over space and through time).

The relationship residents create with their surrounding environments is also dependant on the duration of residence (Gerson, et al., 1977). The more people reside in a specific place, the more that place becomes rich with personal meanings (Rowles, 1983). The importance of such a long-term relationship is manifested even more when it is disrupted by forced mobility, such as due to natural disasters or urban renewal. Studies have shown that being forced to

move into different places from the one you have an attachment with leads to a profound sense of displacement and grief (Erikson, 1976).

When a natural disaster occurs, entire communities can be drastically affected and, consequently, survivors' own psychological sense of community and bond with their environments. Hawkins and Maurer (2011) looked at the consequences Hurricane Katrina (August 2005) had on New Orleans residents by interviewing 40 heads of households in families with school-age children who had been directly affected by the event. Participants described a breakdown in their social fabric at both individual (friends, relatives, family members) and community level (house, favourite shops and restaurants, favourite hangout spots). They described a strong sense of loss of community and social displacement that has affected their sense of safety, routine and trust in a stable environment. Participants reported being separated from their physical community and known social networks in addition to having lost their houses, possessions and loved ones. These losses have led to a sense of nostalgia towards those elements that were present in their life before the hurricane (including people, places and things). It is suggested that a similar sense of loss and displacement will be identified in L'Aquila and Amatrice's communities.

Sarason (1974), McMillan and Chavis (1986) and Altman and Low (1992) theories, although especially relevant for the purpose of this research project, might present some limitations. They could be potentially considered out-dated as new ways of creating communities are slowly developing. The idea that

Western societies lose communities as they modernise has been an ongoing theme in sociology (Driskell & Lyon, 2002). Examples of these changes include the way in which human beings are now creating virtual communities, especially accessed by young generations (e.g. Facebook, Instagram, etc.). Virtual communities are virtual social groupings characterised by the presence of affective bonds among their members (Jones, 1997). However, some research has shown that these virtual communities are often able to recreate some of the same elements that can be found within place-based communities, such as close, intimate, meaningful and supportive relationships (Wellman, 2001).

### **1.3.3 Social Support**

Community disruption can severely compromise the effectiveness and access to social support. Wills (1991) defines social support as the perception and/or experience that one is loved and cared for by others, valued, and part of a social network made of mutual assistance and obligations.

Taylor (2011) described three forms of social support: *Informational*, when an individual helps another to understand what happened and to find appropriate resources; *Instrumental*, which represents the provision of concrete support such as providing services and specific aids or goods; *Emotional*, which involves providing kindness and nurturance to another individual in need. After a traumatic event, some of the most common methods used by people to cope

involve turning to others for help (including family members, friends and even strangers) (Galea, et al., 2005).

In the aftermath of an earthquake, receiving social support becomes fundamental to helping survivors cope with the many consequences they have to face (loss of house, possessions, job and loved ones); it minimises the negative impact that these experiences might have on people's well-being (Xiong, Chaojie, & Ningxiu, 2010). Social support represents an important variable that reduces the psychological impact of a traumatic event and modulates the development and persistence of posttraumatic stress disorder (PTSD) and depressive symptoms in natural disasters' survivors (Brewin & Holmes, 2003; Tracy, et al. 2014).

McGuire and colleagues (2018) analysed the prevalence of PTSD and depressive symptoms among survivors of the 2005 Hurricane Katrina; how perceived social support affects the development of these symptoms; and the impact that relocation might have had on social support. A total of 810 adults participated in the study and completed a battery of self-report questionnaires. The PTSD module of the Composite International Diagnostic Interview for DSM-IV (CIDI) (Kessler & Ustun, 2004) was used to assess both previous traumatic events experienced and the frequency of PTSD symptoms clusters (re-experiencing, avoidance and arousal). Participants were asked if they experienced traumatic and stressing events before, during and after the hurricane; similar questions were asked in previous research on natural disasters (Galea, et al., 2008; Tracy,

Norris, & Galea, 2011). The Crisis Support Scale (CSS) (Joseph, Williams, & Yule, 1992) was used to assess perceptions of crisis-related social support received in the two months after the hurricane. Depressive symptoms were assessed with the Patient Health Questionnaire 9 (PHQ-9) (Kroenke, Spitzer, & Williams, 2001). Finally, participants were asked whether they were displaced or not. Their study demonstrated the significant buffering effect of social support for both displaced and nondisplaced participants; this means that perceived social support is linked to fundamental cognitive and behavioural processes that reduce the likelihood of depressive symptoms to develop. In terms of PTSD, social support had a positive impact on its symptoms too. The authors found significant moderating effect for both arousal and avoidance symptoms, but not for re-experiencing ones. One possible explanation given by the authors was that social support does not have a strong impact on internal processes linked to the development and maintenance of re-experiencing symptoms; people willing to help might not be aware of the individual's internal experiences. Social support can more easily affect avoidance symptoms because those in need can be involved in different activities decreasing isolation and loneliness; and arousal symptoms by encouraging emotion regulation skills.

In the aftermath of a natural disaster, the areas affected can lose many residents. Most of the time, survivors are relocated for their own safety and they are often forced to move into campsites sharing tents with strangers or in temporary housing away from their homes for long periods of time. Uscher-Pines (2009) claimed that relocated disasters' victims face unique challenges,

such as health care disruption, social network changes, living condition changes and psychological stressors.

Koyoma and colleagues (2014) analysed the impact of different relocation methods on the social support and mental health of survivors of the Great East Japan earthquake and tsunami that killed more than 15000 people in 2011. Two main methods were adopted to relocate survivors in temporary housing. In the first approach, victims were randomly allocated (lottery allocation); this method was easier for local governments but did not take into account the consequent community disruption. In the second approach, local authorities tried to preserve local social ties by moving members of the same community together (group allocation); this method was more time consuming but preserved community ties. The total number of participants was 281. Psychological distress was measured by using the Japanese version of the K6 scale (Furukawa, et al., 2008). Social support was assessed by using two items: "Do you have someone who listens to your concerns and complaints?" (receiving social support) and "Do you listen to someone else's concerns and complaints?" (providing social support). The prevalence of serious psychological distress among participants who underwent group versus lottery allocation was respectively 34.9% and 40.7%. Those who reported higher levels of psychological distress tended to lack social support, be younger, received some form of medical treatment and had a lower annual income. Participants who underwent group allocation were more likely to receive and provide social support. Participants who did not receive or

provide social support were 2.50 and 1.93 times more likely to have serious psychological distress.

Receiving social support and being surrounded by intense kin relationships facilitates post-disaster recovery among survivors (Rubonis & Bickman, 1991). Social and emotional support becomes even more crucial in countries such as Italy because they are characterised by a closely-knit family structure (Dell'Osso, et al., 2013). L'Aquila, as well as Amatrice, are characterised by low density populations; their town centre are the heart of their community life. Therefore, having lost these elements of their everyday life might have compromised residents' opportunity to access social support and consequently affect their community resilience, quality of life and mental well-being post-earthquake.

#### **1.3.4 Community resilience**

The concept of individual resilience has been widely investigated throughout the years by several disciplines, including psychology.

Resilience represents the ability an individual has to bounce back and successfully cope when facing substantial adversity (Rutter, 1985). Early research defined resilience as a personality trait, but in recent years it has been redefined as a more dynamic process (Luthar, Cicchetti, & Becker, 2000). To establish whether someone is resilient, two aspects must be present: adversity (e.g. a high-risk threatening situation) and successful adaptation and competence



(Schilling, 2008). The degree to which an individual is resilient can be determined by their protective factors (e.g. social support, self-esteem, sense of belonging, social environment, self-determination, and sense of humour) (Pooley & Cohen, 2010; Earvolino-Ramirez, 2007). Every person will have different protective factors that work for them in different situations; protective factors that lead to healthy and positive outcomes for one individual, might not lead to same outcomes for another individual (Johnson & Weichelt, 2004). Even though the concept of individual resilience has been widely investigated, the notion of community resilience has gained attention only in recent years (Mykota & Muhajarine, 2005). No one community is completely immune from disasters (e.g. natural disasters, human errors, etc.). Since around 2000, research on resilience has focused on the capacity of communities to face disasters and to recover without having to completely rely on outside assistance (Burton, 2014).

In terms of natural disasters, community resilience has been described as the ability of its members to survive, reduce risks, avoid losses and recover from tragic consequences with little or no social disruption (Manyena, 2006; Tierney & Bruneau, 2007). Recovery from a natural disaster can take years, sometimes a multiple of 100 times the extent of the emergency period (Kates, et al. 2006). Burton (2014) has identified four post-disaster periods that characterise natural disasters:

- An Emergency Period characterised by search and rescue, sheltering and clearing of all-important arteries;

- A Restoration Period where some essentials are repaired;
- A Reconstruction Period where destroyed buildings are slowly reconstructed;
- A Commemorative Reconstruction Period.

Every community will move through these periods at a different pace depending on pre-existing economic, social, and political trends (Kates, et al., 2006; Cutter, et al., 2008). A lot of emphasis has been placed on fostering disaster-resilient communities by governments, stake-holders and researchers because disaster-resilient communities are more likely to withstand adversity and recover more functionally compared to less disaster-resilient ones (Burton, 2014).

Madsen and O'Mullan (2016) analysed community resilience of a small community in rural Queensland, Australia. This particular community was affected by a series of severe flood events between 2010 and 2011 which led to the evacuation of the entire town. The first part of their research utilised Photovoice which is an innovative method developed in the mid 90s by Caroline Wang and colleagues (Wang, 1999; Wang & Burris, 1997). Photovoice prompts participants to use photographs to share their perspectives, tell stories and represent important issues (Palibroda, et al., 2009). Eighteen community residents participated in the first workshop; they were asked to provide photographs of the flood events. Fourteen community residents attended the second workshop and examined 138 photographs that were shared by the residents in the first workshop. Finally, 50 members of the community attended the last workshop where 28 enlarged photographs were shown. Different

members of the community analysed different photographs, therefore the narratives differed among them. One of the most important themes that came out of this study was social connectedness or cohesion. Social connectedness describes the relationships within the community members and their experience of feeling close and connected to one another; these relationships include family members, friends, colleagues and acquaintances. Social connectedness provides a person with a sense of identity and a sense of place in society (Kohut, 1984; Miller, 1992; Wolf, 2002). Social networks have been identified as fundamental in creating community resilience (Aldrich, 2012). Having strong relationships leads to being more optimistic; participants believe their community will rise up again because the residents are strong and resilient.

Understanding the importance that the community plays in the aftermath of a tragic event becomes fundamental to finding appropriate intervention strategies that could be developed by government and non-government agencies to promote community post-disaster actions and improve communities' resilience.

#### **1.4 Conclusions and aims**

In recent years, Central Italy has experienced several earthquakes of significant magnitude. Between 2009 and 2016, over 600 people lost their lives and entire communities have been completely destroyed as a consequence of these earthquakes.

For many years, the main focus of psychological research related to the impact earthquakes have on individuals has mainly concentrated on the development and prevalence of psychological disorders among survivors, especially PTSD, Anxiety and Depression (Amstadter, et al., 2013; Alghamdi, et al., 2016).

However, only a small subset of people actually meet all of the criteria to receive a psychiatric diagnosis (Cremer, et al., 2001; Lyoyd & Turner, 2003; Kessler, et al., 2005).

Multiple factors contribute to the development of mental illness in disasters' survivors (Goldmann & Galea, 2014). These include: demographic factors (such as gender, age, economic status, education and intellectual disadvantage) (Zhang, et al., 2011); pre-disaster factors (such as psychiatric history, early traumatic experiences, negative parenting as role models) (Brewin, Andrews, & Valentine, 2000); during disaster factors (such as trauma severity, loss of a loved one, loss of property, witnessing someone being killed by the event) (Ma, et al., 2011); and post-disaster factors (such as community disruption, lack of social support, living in temporary housing, life stress) (Breslau, et al., 1998b). While all of these factors have been demonstrated as having a fundamental impact on individuals' well-being in the aftermath of a natural disaster; psychological research often seems to overlook the influence of post-disaster factors.

This PhD aims to develop our understanding of the impact of earthquakes on survivors and their communities. The emphasis will be on those post-disaster factors (e.g. community disruption, lack of social support, and relocation) that

can lead to severe negative consequences long-term, not only for each one resident, but for the entire community.

It aims to do so by:

- Exploring to what extent the community disruption has hindered earthquakes survivors' opportunity to access social and emotional support and what this has meant for them;
- Exploring to what extent survivors' temporary and permanent relocation has impacted on community cohesion;
- Exploring to what extent the consequences of the earthquake have impacted on participants' perception of their future within the community and the future of their community in general
- Testing the validity and the efficacy of a new qualitative interviewing technique never used before at the site of a natural disaster: The Walking Interview

Results from this PhD should contribute to our current understanding of the impact that such events can have on entire communities, including the negative impact that they might have on survivors' psychological sense of community (Sarason, 1974) and emotional bond with their own surrounding (Altman & Low, 1992). This PhD can be used as a template (example population) to study the impact of earthquakes, and other disasters, in other parts of the world.

It should also help to inform future post-disaster policies aimed at helping entire communities to recover from such traumatic events (including other

natural disasters such as hurricane, tsunami, and floods), and maintain community cohesion which might help to reduce long-term negative consequences. Finally, it might promote the use of a new qualitative interviewing methodology when exploring social phenomena where the context in which they occur is crucial for the purpose of the study.

## **CHAPTER TWO. Methodology**

### **2.1 Introduction**

This chapter will provide an overview of the methodological and epistemological issues regarding the strategy and research design used to achieve the goals of this PhD. It will offer an explanation as to why particular methods were chosen.

Data was first collected by using walking interviews, a new methodology in the field of post-natural disaster research. Walking interviews were analysed with the use of Interpretative Phenomenological Analysis (IPA; Smith, et al., 2009).

After completion of the walking interviews, data was then collected by using focus groups. Focus groups were analysed with the use of Thematic Analysis (TA; Braun & Clarke, 2006).

Qualitative methodologies are based on a constructivist paradigm which claims that reality is subjective and socially constructed by individuals; the aim of qualitative research is therefore to increase understanding of why things are the way they are and why individuals act in the way they do (Tuli, 2010). The main theoretical framework for qualitative research sees the world as interpreted, constructed, and experienced by people in their interaction with one another (Maxwell, 2006). The most common approach to data collection in qualitative research is the interview.

The aim of conducting an interview is to contribute conceptually and theoretically to the literature in a specific subject. Qualitative interviews are generally categorised as structured, unstructured or semi-structured. Structured interviews aim to ensure that each interview is conducted with exactly the same questions in the same order (Kvale & Brinkman, 2008). The interviewer simply reads the questions as they appear on the questionnaire, and records participants' answers (Lindlof & Taylor, 2011). Unstructured interviews engage the interviewer and participant in conversation about a specific topic in response to the former asking open questions (Streubert & Carpenter, 1999). Open-ended questions allow the participant to freely explain the phenomena under study from their own point of view; this helps to ensure that the interviewer is not influencing in any way participants' responses (Moyle, 2002). Semi-structured interviews, the approach chosen for both the walking interviews and focus groups, are in-depth interviews which involve open, direct and verbal questions that elicit detailed narrative and stories (Di Cicco-Bloom & Crabtree, 2006). The interviewer has an informal grouping of topics and questions that could be modified depending on participants' narratives. Participants are free to answer to the open-ended questions as they want and the interviewer can decide whether more information is needed and introduce more questions (McIntosh & Morse, 2015).



## 2.2 Study design

The research questions were addressed by conducting three different qualitative studies. The pilot, *Study One*, aimed at developing the walking interview protocol, implementing it, and evaluating it in order to establish its effectiveness for the purpose of this study. *Study two* aimed at examining participants' experiences of the earthquakes with a particular focus on the social consequences experienced by survivors (e.g. community disruption, lack of social support, and social disintegration). The information gathered in Study Two informed and guided *Study Three*, which aimed at exploring participants' shared understanding of the earthquake and community disruption by using focus groups; focus groups allowed participants to share opinions, ideas, and feelings with each other, address some of the issues raised by participants during the walking interviews, and introduced new topics of conversation.

Study Two and Three also aimed to explore the possible differences between the two towns as not only the earthquakes occurred at different points in time (L'Aquila in 2009 and Amatrice in 2016), but also their social structures differ on several levels.

**Table 2.1** Table illustrating the PhD studies

Study	Participants	Design	Procedure	Analysis
<b>Study One</b> <b>Pilot</b>	N = 1 in UK N = 1 in Amatrice N = 1 in L'Aquila	Qualitative (Walking Interview)	Semi-structure Interviews	N/A  (The protocol was based on IPA)
<b>Study Two</b> <b>Walking</b> <b>Interviews</b>	N = 9 in L'Aquila N = 6 in Amatrice	Qualitative (Walking Interview)	Semi-structure Interviews	IPA
<b>Study Three</b> <b>Focus</b> <b>Groups</b>	Two Focus Groups: N = 5 in L'Aquila N = 6 in Amatrice	Qualitative (Focus Group)	Semi-structure interview	TA

### 2.3 Participants

The Faculty of Medicine & Health Sciences Research Ethics Committee approved all recruitment and assessment procedures on the 29<sup>th</sup> of January 2018.

Eligible participants were survivors of the 2009 L'Aquila and 2016 Amatrice earthquakes who were 18+ years old at the time of the earthquakes and currently still live there; participants' full demographic data are explored in detail in Chapter Three (p. 91-114), Four (p. 115 - 165), and Five (p. 166 - 199).

Both are located in Central Italy which is considered one of the most seismic areas in Italy. First point of contact were two psychologists of the Istituto Nazionale di Geofisica e Vulcanologia who had worked with two charities based in L'Aquila and Amatrice during the emergency period. Direct access to participants was then provided by these two charities who acted as gatekeepers, "Associazione 180 Amici" in L'Aquila and "La Via del Sale" in Amatrice.

Most of the participants interviewed in L'Aquila currently live in new houses or in their original homes which have gone through restoration in order to be made safe; however, the entire city is still under reconstruction and it is far from coming back to what participants would consider "normal". On the other hand, most of the participants interviewed in Amatrice have not been able to return to their original homes as they have still not been made safe. They have now been provided with temporary housing (called SAE), small semi-detached houses which vary in size depending on the number of family members; most of them have been relocated. The town of Amatrice is still surrounded by rubble and not all services have been restored for citizens who, sometimes, have no other choice but drive for forty minutes to an hour in order to get to the closest town which has better services (e.g. supermarkets, shops, clubs, etc.).

As part of the pilot study, Dr Nigel Hunt (Principal Supervisor) helped to test some of the practical aspects of conducting a walking interview. This will be explored in more detail in the next chapter.

Before both the walking interviews and focus groups, participants were asked to read an information sheet (the Italian version; both the English and Italian versions of the information sheet were submitted and approved by the Ethics committee at the University of Nottingham), and to sign a copy of the consent form both in Italian and English. Issues of anonymity and confidentiality were clearly explained to them, as were the reasons for using a Dictaphone to record the walking interview. Participants were informed that they could withdraw from the study at any point without further consequences. They were also informed that any names mentioned, including their own, were going to be changed to ensure confidentiality. Reimbursement for their time and travel costs in the form of participant payment or vouchers was not possible; however, coffee and pastries were always offered during or at the end of the walking interview and throughout the focus groups as a sign of gratitude for their contribution.

## **2.4 Rationale for the choice of methods**

### **2.4.1 Walking Interviews**

The walking interview is a new qualitative interviewing technique which draws on not only traditional interviewing but also the benefits of walking for helping a person to think more clearly (Lynch & Mannion, 2016) and to enable interviews to take place in a setting relevant to the purpose of the interview, which also has benefits for triggering appropriate memories, thoughts and emotions about the topic of the interview. Walking interviews have been successfully used in a

number of situations, but never by psychologists to explore the impact of earthquakes on survivors.

Carpiano (2009) introduced the 'Go-along' interview methodology to study the implications of place and space for people's health and well-being. The 'Go-along' interview is an in-depth qualitative method which is conducted by the interviewer accompanying participants around their familiar environments. The 'Go-along' interview can be conducted while walking, driving or both. The researcher will walk through participants' lived experiences of their neighbourhood in order to examine how physical, social and mental dimensions of place and space can impact on people's health and well-being. What Carpiano and colleagues found was that the 'Go-along' interview not only provided an opportunity to increase participants' engagement, but also enhanced the researcher's interest and respect towards participants and their neighbourhood. Moreover, walking around also helped participants to better understand their neighbourhood's sources of problems. Lynch and Mannion (2016) in their research on outdoor learning and education argued that there is a clear need for more place-responsive methodologies. They found that walking helped teachers think more clearly. Walking also helped both the interviewer and interviewee to pay attention to those elements found in nature that would have been forgotten if the interview was to be conducted sitting down. Walking with the teachers has also helped them to understand the many possibilities that different places have to enhance several learning practices and to improve knowledge.

There may be significant advantages to the use of walking interviews when exploring the personal and community effects of earthquakes. The traditional interview, sitting in an office or living room asking questions and providing answers, while a very useful technique, may have disadvantages when it comes to topics that relate to specific geographical sites. Interviewing people about the impact of an earthquake on themselves, their friends and family, their social support mechanisms and their community may be more effective and have a more naturalistic approach if the interview takes place while exploring the key sites of the earthquake, and the specific sites critical to the interviewee and the community. These may include the interviewee's home, their workplace, their favourite café, friends' houses, the cinema or theatre, and so on.

Mobility and mobile methods have gradually become very significant among social science researchers in recent years (Evans & Jones, 2011). Mobile methods can provide detailed information about the ways people and places interact (Moles, 2008). The use of walking interviews allows us to get to know those places that are important not only for participants but also for their entire community. By walking, people are able to connect times and places through the grounded experience of their surrounding environment (Moles, 2008). The importance of place for human beings has been described by Altman and Low (1992) who introduced the concept of 'place-attachment'. The place-attachment phenomenon has been already illustrated in the literature review chapter (p.48). Walking in the street stimulates a multi-sensory experience of the surrounding environment for both the researcher and the participant (Adams & Guy, 2007).

Walking helps to reduce possible power dynamics that might exist between the interviewer and the interviewee being based in a less formal environment (Carpiano, 2009) and can improve the relationship between them because the place itself functions as a co-producer of dialogue (Brown & Durrheim, 2009). Hitchins and Jones (2004) showed that interviewees found it easier to talk about feelings and experiences when near the places symbolic of the tragic event and they could subsequently provide richer data.

#### **2.4.1.1 Walking interviews' procedure**

A semi-structured interview schedule was developed from the following areas of interest: participants' lived experiences of the earthquakes from the emergency period (including relocation) to more recent events (e.g. reconstruction), and the community disruption that affected survivors' social and personal life and their future expectations. Participants' responses were prompted through the use of open-ended questions which allowed for reflection. The interviewer generated further questions when needed to explore participants' narratives more in-depth. A copy of the walking interview schedule, in English and Italian, can be found in Appendix C (p. 326).

The walking interviews were all conducted and transcribed in Italian; they were then translated into English by the interviewer with the support of the main supervisor who made sure the translation was overall clear. Unfortunately, there was no opportunity to access a professional translator and to back translate all

of the transcripts due to lack of funding and time. The two walking interviews that were back translated were the two included in the pilot study (*Study One*) in order to test the translation's accuracy. Back translation was also carried out by the interviewer and then checked for accuracy by a fellow PhD student (Italian) who studies engineering at The University of Nottingham.

Back translation is a procedure that it is used to test the accuracy of translation in multicountry research (Brislin, 1970). The procedure firstly involves a bilingual native of the target country to translate in the target language (in this study from Italian to English); then a bilingual native speaker of the source language (Italian) to translate the translations back to the source language (from English to Italian). The original transcripts and the back-translated ones are then compared. The accuracy of the back-translated transcript is considered an indicator of the accuracy of the translation. However, translating relates not only to language, but also to culture; the researcher/translator should translate always keeping in mind the cultural nuances of those interviewed. Being born and having grown up in Italy, but also having lived in the UK for the past six years has enhanced my ability to translate the walking interviews and focus groups from Italian to English. Moreover, discussions around the accuracy of the translations were made throughout the entire course of the PhD; Dr Nigel Hunt and I agreed that since my English level is proficient enough, not having access to a professional translator would not need to be considered a major obstacle for the purpose of this study. Examples from the translation can be found in Appendix D (p. 338).



The decision was also made for me to analyse the transcripts in the original language in order not to lose meaning. Van Nes and colleagues (2010), in their article on language differences in qualitative research, explained that interpretation of meaning is a core component of qualitative research and that as translation represents an interpretive act on its own, meaning might get lost during the process. Concepts expressed in one language may be understood differently in another language. For example, people often use metaphors (Polkinghorne, 2005) to explain their experience and metaphors can be very different from culture to culture (Lakoff & Johnson, 1980). Qualitative research is considered valid when the distance between the meanings as experienced by the participants and the one as interpreted in the findings are as close as possible to one another (Polkinghorne, 2007). When transcripts need to be translated from one language to another (from Italian to English), the message communicated in the source language has to be interpreted by the translator and transferred into the target language in a way that can be clearly understood by the receiver. With participants and the main researcher speaking the same language (Italian), no language differences are experienced during the data gathering, the transcription phase and the first analysis which allows the findings to stay as close as possible to participants' meaning. The first challenge begins when the main researcher has to discuss interpretations with other people (the supervisors) who do not speak the same language as the participants and the main researcher; at this point, multiple interpretations are discussed as even in the source language is not yet clear how to interpret and explain some of the participants' narratives. Van Nes and colleagues (2010) suggested that in order

to avoid potential limitations in the analysis in terms of meaning, it is better to analyse the data in the original language for as long as possible and to explain within the research article (the thesis) how the translation was undertaken and why that specific decision was made. This will provide reviewers with a better insight into the way potential meaning losses have been avoided or addressed.

The walking interviews varied in length, from one to three hours with the shortest ones conducted in Amatrice; this might have been related to the event timelines. At the time of the interviews, participants from L'Aquila had had the opportunity to reflect on and directly experience the consequences of the earthquake for about ten years; this meant that their narratives were more detailed and illustrated for both the short-term and long-term impact of the event. Whilst participants from Amatrice had only recently overcome the emergency period and, therefore, could not really illustrate the long-term impact of the earthquake on their community; however, they were able to make assumptions on what might happen in the years to come.

#### **2.4.1.2 Walking interviews' analytic strategy**

The walking interviews were analysed using Interpretative Phenomenological Analysis (IPA; Smith, Flowers & Larkin, 2009). The main aim of IPA is to explore how individuals make sense of their own experiences as they are constantly engaged in interpreting the events, objects, and people in their lives. IPA is a qualitative methodology with roots in phenomenological philosophy,

hermeneutics, and psychology (Langdrige, 2007) with authors such as Husserl (1970), Heidegger (1962), and Sartre (1943).

According to Bäckström and Sundin (2007), phenomenology uncovers meaning, while hermeneutics interprets that meaning. Phenomenological studies are interested in the way people perceive and talk about events in their life and what makes them unique and distinguishable from others (Husserl, 1970). Hermeneutics claims that in order to fully understand individuals' experience of their own world, we need to comprehend their mind set and language (Freeman, 2008); IPA researchers therefore attempt to understand what it is like to stand in someone else's shoes (even if never completely possible) (Pietkiewicz & Smith, 2012).

When using IPA, there are advantages for the interviewer as well as the interviewee. In techniques such as IPA, it is recognised that there is a double hermeneutic or dual interpretation process (Smith & Osborn, 2008). When an interviewer asks questions, the interviewee is attempting to make sense of their experiences. At the same time the interviewer is trying to make sense of what the interviewee is trying to make sense of. When the material is analysed, it is this interpretation that is being presented, so if the interviewer has a more direct experience of the topic of the interview (in this case the earthquake site) then they may develop a more nuanced and sensitive understanding of what the interviewee has said, and in so doing may produce a better analysis.

The choice to use IPA to examine the walking interviews was made because IPA looks at interviewees' detailed personal lived experiences and their meaning (Smith, et al., 2009), and the interviewer is not simply a means of data collection, but their knowledge, emotions and experiences become fundamental for understanding the topic (Fink, 2000). The concept of the interviewer being actively engaged in the data collection and analysis process is crucial for the chosen interview methodology. Walking around the ruins of the towns affected by the earthquakes will prompt both the participant and researcher to be emotionally, physically and psychologically engaged in the interview. IPA methodology is focused on Husserl's research regarding the ways the world appears to people (Langdridge, 2008).

For phenomenologists, it is not just a matter of a mind residing into a body; the focus is on the way individuals' consciousness strictly relates to their own perception of the world, in which case the changing perceptions experienced through walking during an interview will impact on the phenomenon as experienced by the interviewee (and indeed the interviewer). Philosophers such as Heidegger (1962) and Sartre (1943) emphasised the concept that all experiences must be understood in the context of the person having that specific experience and their interpretation of it; attention is therefore focused on the way individuals reflect on and experience their own lifeworld. Walking around enhances our opportunity to understand the lifeworld of the participant and their experiences as they interpret them, and importantly how we interpret the

interviewees' words in the light of our own experiences walking in a particular environment.

The main aim of IPA is to understand participants lived experiences as much as possible by prompting participants to share their experiences and provide as much concrete detail about those experiences as possible (Langdrige, 2008). In this research, these details are prompted by walking around the ruins of the old towns and by revisiting those places significant to participants. Langdrige clarifies that in this process the researcher is an active element since their bias, opinions and values cannot be eliminated; it is therefore fundamental for the researcher to be aware of them in order to understand what they bring to the analysis (e.g. their own background, knowledge and personal experience).

Smith et al (2009)'s six steps were followed when using IPA to analyse the walking interviews' transcripts.

1. Reading and re-reading: listen to the audio-recording at least once while first reading the transcript. Imagining the participant talking helps the researcher to achieve a more complete analysis which includes their reflections and recollections. In this way, the researcher can highlight the location of richer and more detailed sections.
2. Initial noting: the researcher tries to maintain an open mind and notes anything that could be useful within the transcript. This helps to achieve a growing

familiarity with the transcript, and it assists the researcher to understand the participant better, how he thinks or talks about a specific topic.

3. Developing emergent themes: after having written notes, they will need to be transformed into themes. The themes will be identified by analysing which statements were the most important. The themes will reflect not only participants' original words, but also the researcher's interpretation.
4. Searching for connections across emergent themes: at this stage, the researcher will need to develop a chart or map which will help to identify whether different themes could fit together. In this phase, some themes will be discarded as not needed.
5. Moving to the next case: moving to the next participant's transcript and repeating the entire process.
6. Looking for patterns across cases: once all the transcripts are analysed, the researcher will have to identify those themes that are present across all the interviews.

Other analytic strategies were also considered when establishing which analytic methodology could have been the most appropriate to analyse the walking interviews, including Grounded Theory (GT; Glaser & Strauss, 1967) and Thematic Analysis (TA; Braun & Clarke, 2006).

Grounded Theory was not chosen as it is a research approach in which a theory for what is occurring develops from the information collected by the researcher. In GT, there are no preconceived ideas about the phenomenon under study (Harris, 2015). GT is different from other forms of qualitative methodologies as it requires simultaneous and systematic data collection and analysis. Other qualitative methodologies are based on collecting large amounts of data which will then be analysed to search for common themes. In GT, concepts and theories emerge through a process of constantly comparing the data collected and generating new questions regarding the phenomenon under study. Ideas about what is happening emerge during the initial data collection stage where the researcher constructs potential explanations through the observations made, this will guide the next stage of data collection; this process is defined as theoretical sampling (Harris, 2015).

Even if little research has been conducted on the impact of earthquakes on entire communities, theories around the benefits of belonging to a social group with which to identify and of creating a positive bond with own environment have been already developed. As explored throughout the Literature Review (Chapter One, p. 17 - 62), theories such as the Psychological Sense of Community (PSOC; Sarason, 1974, p. 45), Social Identification (Turner, 1985, p. 43), and Place-Attachment Theory (Altman & Low, 1992, p. 49) have informed the entirety of this PhD project. For these reasons, GT was not considered appropriate.

Thematic Analysis (TA) was also considered not appropriate for this study, and therefore not chosen to analyse the walking interviews. As these occurred around the ruins of the old towns and at participants' significant places, the development of a double hermeneutic and a focus on participants' lived experiences were crucial; these are key components of IPA, but not of Thematic Analysis. More details on the characteristics of TA are illustrated in the following paragraphs as it was instead considered appropriate and then chosen for the focus groups' analytic strategy.

#### **2.4.2 Focus Groups**

Focus groups began to be used during World War II, when scientists used non-directive interviewing techniques in groups (Merton, Fiske, & Kendall, 1956). However, their application in social sciences contexts became more common during the 1980s after focus groups had been widely adopted by market researchers (Bellenger, Bernhardt, & Goldstrucker, 1979). Social scientists took some of the strategies adopted by market researchers and adapted them in order to use focus groups in different academic settings.

Focus groups' aim is to better understand how people feel or think about a specific issue, idea, product or service; focus groups are used to gather opinions (Krueger & Casey, 2015). Participants are selected because they have similar characteristics and can generally relate to the chosen topic. The researcher's goal is to create a safe environment that helps participants to open up and share opinions and perceptions without feeling judged. Focus groups in fact represent



a way to interview people by encouraging them to talk to one another, asking questions or commenting on each other's experiences and points of view (Kitzinger, 1994). The facilitator typically explains to participants that within the group everyone is free to express and share their feelings, concerns and experiences with one another, rather than only direct their answers to the interviewer (Kitzinger, 1995). Focus Groups increase the richness of the data collected by both the common experiences shared by participants and the complexity of their different points of view enhanced by the group dynamics (Morrison-Beedy, Côte'-Arsenault , & Fischbeck Feinstein, 2001). Each group normally includes five to ten participants; more than one focus group is usually conducted to allow the researcher to compare and contrast data from across the groups (Krueger & Casey, 2015). Focus groups utilise the semi-structured interview strategy which means that the interviewer has a grouping of topics that can be discussed throughout the group session by using open-ended questions.

The aim of the focus groups was to analyse participants' shared experience of the community disruption. While the walking interviews allowed me to obtain a more individual and personal point of view on the community disruption, consequent lack of social support and quality of life post-earthquake, focus groups led to a more social understanding of the topic. The focus groups' aim was to bring community members together and provide them with a safe space to reflect and discuss some of the topics already explored during the walking

interviews within a group setting, but also to introduce new information and/or perspectives that might have not been explored in a 1:1 context.

Two focus groups were conducted, one for each town (L'Aquila and Amatrice). A mixed group which included participants from both towns was not taken into consideration as one of the aims of Study Three was to achieve a more in-depth comparison between the two towns (including elements such as the different event timelines and socio-demographic characteristics). Also, as mentioned in paragraph 2.3 (p. 67), participants were not reimbursed for their time and travel costs; therefore, asking them to travel between the two towns was likely to be perceived as inconvenient and inappropriate.

#### **2.4.2.1 Focus groups' procedure**

A semi-structured interview was developed from the following areas of interest which were informed by the findings of Study Two: participants' shared experiences of community disruption, changes in their community's life and structure, and loss of meeting places. Participants' responses were prompted through the use of open-ended questions which allowed for reflection. The interviewer generated further questions when needed to explore participants' narratives more in-depth, however space was allowed in order to promote a discussion within the participants themselves. A copy of the focus group interview schedule can be found in Appendix C (p. 326).

As for the walking interviews, the focus groups were all conducted and transcribed in Italian; they were then translated into English by the interviewer with the support of the main supervisor who made sure the translation was overall clear. Again, there was no opportunity to access a professional translator due to lack of funding. The focus groups' transcripts were also back translated and again checked for accuracy by a fellow PhD student (Italian). Examples from the translation and back translation can be found in Appendix D (p. 338).

As for the walking interviews, the decision was also made for the interviewer to analyse the focus groups' transcripts in the original language in order not to lose meaning (van Nes, et al., 2010). The authors explained that the interpretation of meaning is a core component of qualitative research and that as translation represents an interpretive act on its own, meaning might get lost during the process. Concepts expressed in one language may be understood differently in another language (Polkinghorne, 2005). With participants and the main researcher speaking the same language (Italian), no language differences are experienced during the data gathering, the transcription phase and the first analysis which allows the findings to stay as close as possible to participants' meaning (van Nes, et al., 2010).

The focus groups varied in length, from one to two and a half hours.

#### **2.4.2.2 Focus groups' analytic strategy**

The focus group data was first transcribed in Italian, then translated into English (both the transcriptions and translations were conducted by the interviewer, to make sure the translation was clear and similar in meaning, revising it with the support of my supervisor), and analysed using Thematic Analysis (TA) (Braun & Clarke, 2006). TA is used to identify, analyse and report themes within a specific set of qualitative data. One of the benefits of using TA is its flexibility. TA is not based on any particular theoretical and epistemological approach; it can therefore be used within different theoretical frameworks. Through its theoretical freedom, TA is a flexible and useful tool that can provide rich, detailed and complex account of data. Within TA, themes can be identified through two different approaches: inductive and theoretical (Patton, 1990). An inductive approach means that the themes are strongly associated with the data collected; the researcher does not try to fit the themes found in pre-existing coding frames. The theoretical approach is instead driven by the researcher's theoretical interest in the topic under study. This approach provides less detailed description of the data, but more complex analysis of some aspects of the data. Themes can also be identified at two different levels: semantic and explicit or latent and interpretative. With a semantic approach, the researcher is not looking for anything beyond what the participant has said; data is simply organised in patterns and an attempt at interpretation is conducted often in relation to previous literature. In contrast, the latent approach goes beyond the semantic content of the data to identify underlying ideas, assumptions and ideologies. A combination of inductive and theoretical and semantic and latent will be utilised in the analysis.

TA allows the researcher to see and make sense of collective and shared meanings and experiences which perfectly matches the aims of these focus groups (e.g. understanding the phenomenon under study from a more social point of view by bringing community members together).

As well as for the walking interviews, other analytic strategies were considered when establishing which analytic methodology could have been the most appropriate to analyse the focus groups, including IPA (Smith, et al, 2009) and Grounded Theory (GT, Glaser & Strauss, 1967). With IPA, the focus falls on both the researcher and the participant; they both play an important role throughout the interview. In the focus group instead, the researcher tries to step back leaving participants to mainly lead the conversation. It is their story, the story of their community, that gets the conversation flowing. The researcher is not as much part of the dynamic. However, it is important to note that the researcher cannot completely free themselves of their own perspectives on the topic under study and will play their part during the analysis phase. The researcher needs to be aware of their perspectives, opinions and concerns in order to make sure they do not come across during the focus group session and analysis. They will need to be as neutral as possible in order to allow participants to feel free to share everything with each other.

In Grounded Theory, there are no preconceived ideas about the phenomenon under study (Harris, 2015). As this study was also informed by the several theories illustrated throughout the Literature Review (Chapter One, p. 17 - 62),

Grounded Theory was not considered appropriate for the analysis of the focus groups transcripts.

Some of the phases of TA are similar to the phases of other qualitative research analyses. Braun and Clarke (2006)'s six steps were followed when using TA to analyse the focus groups' qualitative data.

1. Familiarising yourself with the data: it is vital that the researcher immerse themselves in the data to the extent that they became familiar with the depth of the content. This is obtained by reading and re-reading the transcripts in an active way which means actively searching for recurring themes.
2. Generating initial codes: once the researcher has familiarised with the data and found some recurring themes, the production of initial codes begins. Codes identify a feature of the data that appears interesting to the researcher and relevant for the research aims.
3. Searching for themes: this phase begins when all data has been coded and the researcher now has a long list of codes that were identified across the data set. This step involves sorting the different codes into wider themes.
4. Reviewing themes: this starts when the researcher has devised a set of possible themes and can therefore revise and refine them. During this phase, it becomes

evident that some of the overarching themes that were found, are not really themes and some others might fall under the same umbrella.

5. Defining and naming themes: once the themes have been refined, the researcher has to define them which means identifying the essence of what each theme is about. Once this is completed, the analysis can start.
6. Producing the report: this phase involves the final analysis and production of the report. The aim is to explain the data in a way which will convince the reader that the analysis is worth merit and validity.

### **2.5 Qualitative research and the importance of reflexivity**

When it comes to qualitative research, reflexivity becomes fundamental to achieving better quality research and increased validity (Mays & Pope, 2000). In qualitative research, researchers need to carefully self-monitor the impact that their biases, beliefs, and personal experiences might have not only on their research in general, but also on the settings and people being studied, questions being asked, and data being collected and interpreted (Berger, 2015).

Self-monitoring can enhance the accuracy of the research and the credibility of the findings (Cutcliffe, 2003). It improves researchers' ability to understand the possible ways in which they can both help and hinder the process of co-

constructing meanings and, consequently, enables them to manage and present their data better (Lietz, et al., 2006).

Reflexivity was central to this research as the interviewer belonged to the same cultural background as the participants who engaged in the study. Whilst this contributed to participants feeling more at ease and comfortable when having to share sensitive information regarding the events and how they felt due to shared values, beliefs, and traditions, it also made some aspects of interviewing more challenging. Belonging to the same cultural background might have contributed to a researcher bias. As well as participants, the interviewer grew up in a highly seismic area and pretty close to one of the most dangerous volcanos in Europe, the Vesuvius in Naples. Therefore, even if the interviewer has not really experienced such a severe earthquake as the ones experienced by the study participants, to some extent she shared their worries and could picture herself in their situation. Throughout the whole research, the interviewer was aware of this and took every effort to remain as impartial as possible and not to express her opinions, especially to the study's participants. This was extremely difficult, especially during the walking interviews, as seeing the way survivors live now and walking around the ruins of the old towns was emotionally challenging. On a few occasions, the interviewer had to seek supervision (even during field work) in order to address some of the overwhelming emotions (in particular anger and sadness) she was feeling in regard to the experiences shared by the study's participants. In addition, after having conducted the first set of walking interviews (eleven in 6 days, including travelling from the interviewer's hometown to first destination, Amatrice, and then from there to the second destination, L'Aquila),



the interviewer realised that it had been overly intense and made sure the next time she would conduct less interviews or the same amount of interviews over more days as she wanted to guarantee both her and the participants felt adequately supported.

Finally, it is important to mention that I analysed both the walking interviews and focus groups under the frame of Social Constructivism. The core idea of social constructivism is that reality is socially constructed; members of a society invent the properties of their own world (Kukla, 2000) and create meaning through their interaction with each other and with their own environment (Kim, 2001). Social constructivism emphasises the importance of context and culture when attempting to understand what happens in society and constructing knowledge based on this understanding (Derry, 1999). In this PhD, participants' experience of the community disruption caused by the earthquakes cannot be understood outside of the context of their relationship to one another and outside of the environment they live in (Italian communities characterised by closely-knit family structure).

## **2.6 Ethical Considerations**

The Faculty of Medicine & Health Science Research Ethics Committee of the University of Nottingham approved all recruitment and assessment procedures on the 29<sup>th</sup> of January 2018. The project information, including the intervention details and procedures, were provided to the organisations involved in the

research in both L'Aquila (180 Amici) and Amatrice (La Via del Sale). Before each walking interview and focus group, eligible participants had the opportunity to read the 'Participants Information Sheet' (submitted both in English and Italian), ask questions if they wanted to and sign a written consent form (one in English and one in Italian) where they confirmed to have understood the topic of the research, what was being asked of them, and whether they were willing to participate to the study. The interviews were all audio-recorded with a Dictaphone.

Specific ethical issues were proposed in the present study. First, the participation of survivors of both events to this research could arouse participants' unpleasant memories and consequently induce psychological distress. The latter could have been worsened by seeing and being at the places significant for participants. For this reason, the researcher carefully monitored participants' emotional state and made sure that they took time off during the interview if needed. Participants were aware that they were free to withdraw from the interview at any time and informed that their names were going to be maintained anonymous. Both elements were clearly indicated on the consent form they had to sign.

At the end of both the walking interviews and the focus groups, participants were informed that they were going to receive a phone call from the interviewer in the following two to three days in order to make sure they felt fine and were not in distress.

In order to provide adequate support, it became important for the researcher to seek appropriate supervision. Having to deal with strong emotional states and see places that were completely destroyed as a consequence of the earthquakes was very intense for both the researcher and participant, therefore supervision was crucial. Also, the researcher made sure not to conduct too many interviews in a single day as it could have been counterproductive. The researcher made sure to take enough time between interviews in order to guarantee the same commitment to each participant who engaged in the study.

## **2.7 Conclusion**

This chapter has provided with an overview of the methodological and epistemological issues regarding the strategy and research design used to achieve the research goals.

The research questions were addressed by conducting three different qualitative studies: a pilot study, *Study One*, which aimed at developing, implementing, and evaluating the walking interview methodology; *Study two* which aimed at examining participants' experiences of the earthquakes with a particular focus on the social consequences experienced by survivors; and *Study Three*, which aimed at exploring participants' shared understanding of the earthquake and community disruption by using focus groups. Study Two and Three also aimed at exploring the possible differences between L'Aquila and Amatrice.

This chapter has presented the rationale and discussion of the chosen research methods and analytical strategies. Extensive discussion has been provided on the reasons why walking interviews and focus groups were chosen as data collection methodology for the purpose of this PhD research project, but also why IPA (Smith, et al., 2009) and TA (Braun & Clarke, 2006) were chosen to analyse the data collected. The population and location of the current study were also described as well as any ethical considerations that needed attention. The next chapter proceeds to describe the results of *Study One*, the pilot.

## **Chapter Three. IPA Walking Interviews: pilot study**

### **3.1 Introduction**

The walking interview is a fairly new qualitative interviewing methodology that has not been used before by psychologists to explore the impact of earthquakes. Walking interviews enable an interview to take place in contexts that are relevant for the purpose of the study. The walking interview is conducted by the interviewer accompanying participants around their familiar environments (e.g. town centre, home, workplace, favourite restaurant or café). Interviewing people about the impact of an earthquake on themselves, their friends and family, their social support mechanisms and their community may be more effective if the interview takes place while exploring the key sites of the earthquake, and the specific sites critical to the interviewee and the community.

The walking interview methodology has been used before in other scientific fields such as health and well-being (Carpiano, 2009) and education (Lynch & Mannion, 2016) where its benefits have been made clear by the way in which it helps the participants to think more clearly, but also the interviewer to examine the physical, social, and mental characteristics of the chosen places. A major advantage of walking interviews is their ability to access people's attitudes and knowledge about their surrounding environments; walking around represents a more intimate way to engage with that environment that can offer an in-depth insight into both the place and self (Solnit, 2001).

The pilot was used for developing, implementing and evaluating an appropriate walking interview protocol for use in a situation where the environment itself is critical to the purpose of the interview (D'Errico & Hunt, 2019). It was also used for testing the actual interview process itself, conducting an interview and recording it while walking.

### **3.2 Participants**

For the pilot, three participants were interviewed through the walking interview methodology.

One interview was conducted in the Derbyshire area with Dr Nigel Hunt (main supervisor). As mentioned in the methodology chapter (p. 67), Dr Hunt helped to test some of the practical aspects of conducting a walking interview (e.g. the use of a Dictaphone to record the interview while walking); however, the content of the walking interview (e.g. memories of the places visited) were not included in this study as they were not relevant to the research aims.

Access to the other two participants was provided by two charities who acted as gatekeepers, based in L'Aquila and Amatrice, respectively "Associazione 180 Amici" and "La Via del Sale". Participants included Gianluca (pseudonym; male aged 28) in Amatrice, and Flavia (pseudonym; female aged 53) in L'Aquila.

### **3.3 Developing the protocol**

The protocol for the walking interviews is partly the same as a traditional interview but has additional components.

1. Develop the general interview schedule for the topic based on the literature review and the MSc findings (e.g. impact of the earthquake on self and family/friends; longer term effects, coping/support). Ensure the participant is aware of the general nature of the interview.
2. Meet with the participant to a) discuss the route to include significant sites such as home, workplace, favourite café or restaurant, etc, b) any additional questions that might result from the choice of sites. This makes the interview place responsive. The participant is likely to know which route to take to ensure all the sites are seen, and whether these can be done in a single walk or whether another form of transport may be necessary for some sections.
3. Consider the length of the route, the terrain to be covered, safety aspects, the health, fitness and age of the participant and the interviewer; the likelihood of noise on the route which has an impact on the quality of recordings (this may mean that the interview stops and starts due to traffic for example).
4. Select suitable recording equipment, preferably something that reduces the impact of surrounding noise. It is difficult to record using a single microphone when walking side by side, and continually moving the microphone may distract

participants. Where possible, use two Bluetooth-linked microphones attached to each participant. If this is not possible, the practical usage and limitations of the microphone need to be explained to the interviewee at the outset so they understand that they must speak into the microphone.

5. For security and safety reasons, interviewers should ensure that a third person knows the route and timing of an interview (and any changes that take place, as they might during an interview). The interviewer should report back once the interview has finished. This is in line with the lone worker policy at the University of Nottingham.

A key implication of the above is that every interview is likely to be different. This is why it is normally essential to have the general interview schedule determined before discussing potential sites and routes with participants. In this way, the researcher ensures the key research questions are covered in each interview.

### **3.3.1 Conducting the walking interview**

Questions were developed depending on the route chosen, but focused on the interviewees' homes, workplaces and other places that were important to them. The idea of the walking interview was discussed with interviewees and significant places were identified. Discussions were made around the need for the participants or the interviewer to drive or take public transport in order to



reach each place. There were problems getting a Bluetooth microphone, so a traditional recorder was used with the microphone being passed between the participants as necessary. Participants were made aware of the limitations of the technology. A colleague of the interviewer was informed of the routes and timings and the interviewer telephoned them after each interview (as per the lone worker policy at The University of Nottingham).

### **3.3.2 Analytic Strategy**

IPA (Smith, et al., 2009) is a qualitative methodology with roots in phenomenological philosophy and psychology (Langdrige, 2007) with authors such as Husserl (Husserl, 1970) and Heidegger (Heidegger, 1962). The choice of IPA was made because it looks at interviewees' detailed personal lived experiences and their meaning by prompting them to share detailed information (Langdrige, 2008), and the interviewer is not simply a means of data collection, but their knowledge, emotions and experiences become fundamental to understanding the topic (Fink, 2000).

IPA focuses on understanding the phenomenon via developing the *double hermeneutic* of the participant attempting to make sense of the world and the interviewer trying to make sense of how the participant makes sense of the world. This approach is particularly useful when the interviewer is being taken – literally – into the world of the phenomenon in question, in this case the cities that were destroyed by an earthquake. When the material is analysed, it is the

researcher's interpretation that is being presented, so if the interviewer has a more direct experience of the topic of the interview (in this case the earthquake site) then they may develop a more nuanced and sensitive understanding of what the interviewee has said, and in so doing may produce a better analysis.

Further information on the rationale for the use of IPA can be found in the Methodology Chapter (p. 74).

### **3.4 Results**

#### **3.4.1 UK-based pilot walking interview**

A first pilot walking interview was conducted in the United Kingdom to test the method. The walking interview was kept as close as possible to the ones planned to be conducted with participants in L'Aquila and Amatrice. Dr Hunt was prompted to discuss the history of the places and buildings we visited (e.g. the local pub, the fields behind his family house) and to explore his emotional response to them. The aim of the interview was not to explore any traumatic or stressful event he might have experienced, but more on testing the method itself and the practical aspects, such as how easy it would be to walk and talk in detail about places.

The UK-based walking interview helped to reflect on the possible challenges that could potentially prevent the interview from happening or could reduce the quality of the information collected. For example, weather conditions should be

considered when deciding timing and places. Places like Amatrice and L'Aquila become very cold during winter. Conducting walking interviews during this time of the year might not be appropriate; participants might find it unpleasant and withdraw from the interview. People with physical disabilities and the elderly might not be able to engage in this type of methodology due to walking difficulties; this element will limit the sample access to specific participants who present no issues with walking.

An important element identified during the UK-based interview is the level of concentration the interviewer will have to maintain throughout the whole interview. It is fundamental that the interviewer stays concentrated because participants might be mentioning something strictly related to the places they are walking through; even if completely clear to the participant, that might not be the same for the interviewer. The interviewer must therefore be ready to ask further questions on the topics discussed by the participant and even more when the content of what is discussed is not very comprehensible. This aspect is quite complex to accomplish because the interviewer will not only have to manage to record the interview and ask questions while walking, but also deal with their own emotions and thoughts which they might experience while listening to participants' narratives and looking at significant places. Another consideration was made on whether to establish the route before the interview starts or not. For the UK-based interview, the participant and the interviewer sat down before leaving for the walking interview and decided the route. However, this slightly changed during the interview because the participant decided that

there were specific places that could have been important for the narrative and needed to be visited and mentioned in the interview.

The first pilot interview was fundamental to prepare the interviewer for the actual field work. Not having previously approached this type of methodology led to the need of practicing at least one walking interview before meeting potential participants. Being aware of possible obstacles that could interfere with the interview is very important; it helps in maintaining the focus of the interview on the information we want to gather from the participant, but also helps with establishing the best setting for the interview to happen (e.g. where to go and explaining what we want to achieve from the interview).

Once some of the practical aspects were established, the next step was to pilot the walking interview methodology in Italy. The aim was to identify any further elements that would need to be taken into consideration when using the methodology to explore the research aims.

### **3.4.2 Italy-based pilot walking Interviews**

#### **3.4.2.1 Amatrice**

The participant, Gianluca, is a 28 year old man who lives in one of the small villages that constitute Amatrice, which was completely destroyed during the earthquake in 2016. Gianluca is among one of the very few young people who has decided to stay in the area and take over his dad's business. He works as an electrician and

used to own a small supply store in the town centre of Amatrice; the store collapsed the night of the earthquake, but Gianluca decided not to give up and is now attempting to rebuild it somewhere else.

The first part of the walking interview focused on his own and his family's losses, including their houses and business. We walked to his house and his parents' house where they were the night of the earthquake. There was nothing left of his house and his parents' house was severely damaged by the event. Gianluca took me to his parents' house. Once there, Gianluca became very emotional and I could feel, not only his love for that house, but also his frustration because he and his family are still not allowed to fix it due to government restrictions.

*"I feel sorry because I know that the house is okay ... even more for my dad, he comes here every day.... it just doesn't make any sense to abandon it ... abandoning a house that took him an entire life to build ... I am angry because they just won't allow me to fix it." (Gianluca, 28, male)*

After having been to his parents' house, we slowly walked back to the campsite where his entire family resides. At that point, the interview seemed to have reached an end since there was nowhere else to go. Instead, Gianluca decided to go to the town centre in Amatrice. He wanted to show me what is left of Amatrice and how it has been changed by the recent construction of two shopping centres. Walking around the town prompted Gianluca to show me more about Amatrice;

this would have not happened if the interview was conducted by sitting around a table.

Once we arrived in the town centre, I felt overwhelmed by the tragedy that the earthquake brought to Amatrice. The entire town is still surrounded by rubble. Gianluca showed me where his family's store was and all the meeting points where the community used to gather. He told me how everything was different before the earthquake and I could sense his anger and frustration. Walking around the town gave me the opportunity to understand the loss and embrace his emotional state. I found myself feeling angry and frustrated, wanting to do something. I shared his negative feelings for the mayor who abandoned the community. The intersubjectivity is strongly represented here because the interviewer is in the place with Gianluca. There is no sense of objectivity, of the interviewer being outside the spatial world of the interview.

Through the walking interviews methodology, as Burn (2003, p. 232) pointed out, a researcher's own *"embodied subjectivity interacts with that of the respondent in the mutual construction of meanings/bodies ... no "body" can exist neutrally outside this process of inter-corporeality or inter-subjectivity"*. Merleau-Ponty (1945) claimed that the body is the vehicle for understanding the world; it is through an individual's own embodied consciousness that an understanding of the other is gained. Intersubjectivity means therefore finding ourselves being "thrown" into a specific time, place, and culture which can be shared with other people (Heidegger, 1962); it means sharing the same cultural meanings through

the use of semantic processes (mainly linguistic) (O'Donnell & Tharp, 2012). Humans are social beings who constantly engage with one another (Zahavi, 2001), and it is through our feelings that we get to know our world and, within in it, other people without having to necessarily reflect on or narrate it (Boden, et al., 2016). Intersubjectivity is very much linked to Sarason's Psychological Sense of Community (PSOC, 1974, p.45); the higher the intersubjectivity (meaning sharing), the greater the likelihood of people perceiving a feeling of belonging somewhere.

In this sense, walking around the old ruins of Amatrice's town centre, gave me an opportunity to share and feel, even if only to an extent, Gianluca's experiences of the earthquake and his own sense of community. Of course, intersubjectivity is not straightforward and it is only accessible through our own consciousness and empathy (Zahavi, 2001); walking interviews promote intersubjectivity by allowing the exchange of feelings, meaning, and experiences through the relationship that is established between the interviewer, the interviewee, and the environment.

Once we reached the shopping centres, Gianluca explained everything about how the decision was made to build them and who built them. Both shopping centres look out of place and I could feel his frustration while he was talking about them.

*Gianluca (28, male): "See ... I'll show you both of them ... then we can stop ..."*

*Interviewer: "No, they are crazy"*

*G: "Well ... this is exactly the first thing we said as well"*

*I: "I am sorry, but they are horrible"*

*G: "Because you haven't seen the inside yet ..." (with sarcasm)*

At the end of the interview, I asked him his thoughts regarding this kind of interview. He told me he was interviewed several times after the earthquake, but the interviewers seemed to be only interested about the event itself and whether he had seen anyone dying. He told me he did not understand the point of those kinds of interviews because they did not focus on the present, which illustrated the importance of temporality – the interview takes place in the present, even though it refers to the past - perhaps even more so when walking around critical sites. All research takes place in and over time; research projects mobilise different temporal registers (McLeod, 2017). The concept of temporality enters into research designs, practices, and methodologies; oral and life stories, while orientated towards the past, are also about how the past is remembered and how it affects the present (McLeod & Thomson, 2009). Temporality is not simply a fancier word for time; temporality represents the messy and moving relationship between past, present, and future (Harootunian, 2007; Lorenz & Bevernage, 2013). In this context, when talking about time, we mean time as experienced and perceived (psychological time which is subjective), not as measured (mathematical or physical time which is objective and can be measured, for example, through the use of a clock) (Bergson & Pogson, 2001). Memories are



always reconstructions in the present of what happened in the past, and the narratives will therefore be characterised by selections, linking of memories, interpretations and chosen perspectives (Josselson & Lieblich 1993; Bruner 2003; Rosenthal 2004).

### **3.4.2.2 L'Aquila**

Flavia is a 53 year old woman who was born and grew up in L'Aquila. From Flavia's narrative, it became evident that she had been struggling with mental health problems from a very young age. The details on her mental health problems were not explored throughout the walking interview as they were not relevant to the aims of the study; however, while at the most symbolic place of her life after the earthquake, Flavia disclosed that she suffers from anxiety and she requested some time to process her emotional state in order to continue with the interview. This happened when Flavia decided to show me where she lived for almost six years after the earthquake before she was able to move back to her family house. In the aftermath of the event, L'Aquila residents were relocated to different areas called Progetto C.A.S.E where government bodies built big buildings to house the entire population. Each one of these New Towns were located in different areas and Flavia and her parents ended up being separated from the rest of their family members, which had a major impact on their mental health:

*“... the final destination was chosen by them (government bodies) .... We wanted to stay close to each other and instead my brother with his young daughters and a newborn were sent to Preturo which is on the opposite side of Paganica 2 ... there was a list of preferences, but it was just a joke ...” (Flavia, 53, female)*

Once at the Progetto C.A.S.E, Flavia appeared agitated and became quiet for a few minutes looking around the place. Through walking around the area, Flavia had the opportunity to relive the time she was there and all the emotions she may have felt (again the concept of temporality is crucial here; this temporality has a potential impact on the ways in which interviewees may construct their understanding of the event, not only during the interview but into the future). This gave me the opportunity to try and understand what living there meant for her and to share her emotions.

*Interviewer: “How do you feel?”*

*Flavia (53, female): I feel weird, I feel as if I am here but not at the same time ...  
Sorry, I am getting nervous (starts vigorously coughing)*

*I: Don't worry. We are not in a rush*

*F: This is all anxiety (keeps coughing)*

*I: How do you feel? Are you sure you want to continue?*

*F: Yes, yes ... I am sweating, I don't know whether it's the heat or because I am agitated ..."*

Flavia introduced me to her neighbours, but after 10 minutes she decided it was too much and wanted to go to the city centre where she used to meet all of her friends from when she was a young girl. Once there, Flavia showed me around the centre and told me stories about these 'columns' called 'pilastri' where different groups of people would stand around and spend time together. Flavia told me she does not go to the city centre very often now; she told me that going there makes her sad:

*"...the absence of the city centre ... we were used to go to, especially around the columns, from when we were young. L'Aquila was a lively town ... there were many shops, restaurants, bars, the market every morning, churches, everything was there. I basically lived there ... it is sad ... I can't go there anymore ..."* (Flavia, 53, female)

Towards the end of the interview, I asked Flavia how she felt about this type of interview. She seemed pleased with it; she felt that it has helped her in talking about L'Aquila.

*Interviewer: "What do you think of this type of interview?"*

*Flavia (53, female): I like it. Let's say that you need it for your thesis, and it is educational for you, for me it's a release ... I like telling mine and L'Aquila's story ..."*

*I: I interviewed before but sitting around a table ... I wanted to see the places and try to understand better ..."*

*F: ... I think it's important for both me and you ..."*

This shows how walking at the site of a disaster and around places significant to participants can enhanced the quality of the information collected on the phenomenon under study.

### **3.5 Evaluation of the walking interviews**

This pilot study showed that the walking interview can be successful at eliciting relevant information from interviewees. As far as I am aware, this is the first-time walking interviews have been used at the site of a natural disaster, and the behaviour of both interviewees and interviewer demonstrated differences from the normal sitting interview. This was mainly in terms of the ways in which emotion was expressed but also in the closer emotional involvement of the interviewer. In a sense, the emotional expression of the interviewee was deeper than is usually found in sedentary interviews, though this is difficult to fully determine as there is no specific comparison. This meant it took more time to

undertake the interview, but a greater depth of meaning and emotion was established.

The intensity of the emotions (including anger at the authorities) felt by the interviewer has both advantages and disadvantages. It is positive as it will mean a greater degree of empathy between the interviewer and interviewee, but there is the danger that this intensity of emotion may detract the interviewer from attending to the needs of the interview. Furthermore, these two interviews are just part of a series of interviews involving the walking interview. The interviewer found that the increased emotion experienced through the walking interview meant it was important to take time off between interviews and also there was a need for appropriate supervision. This is in addition to the interviewees wanting to take time during the interviews to deal with their emotions.

The examples also show that the direction of the interview can be more under the control of the interviewee. The original choice of sites may change, as Flavia indicated when she wanted to go the town centre. This is positive in allowing flexibility and in enabling the interviewee to have greater control, and to be able to direct the interview towards the sites of special memory that may not have been decided on at the start of the interview. Against this is the potential risk to the interviewer who needs to ensure that the third party is aware of the changes to the interview schedule but does not want to interrupt the interview to inform them of the change. Perhaps, future studies could consider the involvement of two researchers in the data collection process, which was not possible during

this study due to financial constraints. This would mean that they could each take the role of the interviewer or observer when conducting the walking interview. The observer would be able to take field notes while the interviewer conducts the walking interview (e.g. take pictures of the places visited, take notes of facial expressions, etc.) and inform a third party of any changes in route to ensure everyone's safety. Where this is not possible, the interviewer will have to briefly excuse themselves and write a text to the third party to inform of the change in route, the participant will be made aware that this is to ensure everyone is safe at all times.

If the interviews had been conducted by sitting at a table, Gianluca's interview would have not moved to Amatrice town centre and the interviewer would not have fully understood his frustration. Going to those places significant for participants lives before and after the earthquakes prompted them to remember important events and, therefore, to enhance the quality of the information shared with the interviewer.

A car was needed at times to move from one place to another depending on interviewees' needs. The interview did not stop while in the car, with the interviewees continuing their narrative and talking to the interviewer about their experiences throughout the journey. While this is beneficial as it keeps the interview flowing, there is a potential danger in driving while interviewing. While interviews can be recorded 'hands free' in a car, the driver, whether interviewer or interviewee, must focus on paying attention to the road, so ideally the

interview should be suspended for this period, or if possible, public transport should be used instead.

IPA was appropriate as it allowed the interviewer to deeply reflect on participants' interpretation of their experiences and the emotions related to specific places, and on the importance the interviewer's emotions and points of view play when conducting the walking interview. The double hermeneutic is strongly at play here, with the development of interpersonal experiences, particularly relating to emotions on seeing some of the key sites.

### **3.6 Broader implications of the walking interview**

Walking interviews have the potential to improve the quality of the data collected through enhancing the experience of both the interviewer and the interviewee (Adams & Guy, 2007).

This methodology gives the opportunity to the interviewer to really walk in the interviewees' shoes enhancing what is called perceived perspective taking.

Perspective taking as well as empathy are fundamental in qualitative research (Jones & Ficklin, 2012). Perceived perspective taking means actively considering a specific situation from someone else's point of view (Batson & Shaw, 1991).

This is made possible through the opportunity to see with our own eyes those places that have meant something to participants and feel their same emotions to some degree. There has been extensive research regarding the importance of

perspective taking when conducting research (Goldstein, et al., 2014). For instance, perspective taking increases liking of and compassion towards the target (Batson, et al., 1997), but also helps to facilitate social interaction by promoting smoother and more coordinated interpersonal exchanges (Galinsky, et al., 2008).

Perspective taking enables the interviewer to step outside the confinements of their own biased frames of references (Moore, 2005); this means going beyond one's own point of view to be able to consider the perspective of another person who might have different points of view (Epley & Caruso, 2012, p. 299). In order to engage in perspective taking, the interviewer usually has to complete three mental operations. First, the mental process of perspective taking must be activated through the use of empathy; second, the interviewer must go beyond their own point of view to experience, simulate, or infer the perceptions of the participants; and finally, the interviewer might have to explore additional information (such as stereotypes) known about the participant (Epley & Caruso, 2012, p. 299). Previous research has shown that individuals are unlikely to completely set aside their own points of view; however, they might use it as a starting point from which to explore the potential differences between themselves and others. In general, perspective takers experience and demonstrate greater empathy compared to those who do not. Empathy is not just about emotional knowing, it is also a felt and embodied experience. In order for researchers to understand their participants, they really need to learn to read and question their own body's responses when interacting with the



participant; by examining their own embodied responses, researchers are more likely to better understand participants' emotional and physical responses (Finlay, 2005).

As the interviewer, my own values, beliefs, embodied responses, and life experiences can be considered my own personal starting point from which I was able to explore and better understand participants' own values, beliefs, and experiences while at the places significant to them. Newcomb (1956) showed that believing another individual is concerned about one's well-being generally increases positive feelings toward that individual.

The common power dynamics often found in interview methodologies were not as present during the walking interviews. The interview situation is characterised by many forms and degrees of power; throughout an interview, the power usually tends to go from the interviewer to the interviewee, and vice versa (Anyan, 2013). However, in terms of distribution of power in interview settings, the interviewer seems to usually have a direct power over the interviewee; this is because the interviewer is often the one person who sets up the stage, controls the setting and the script, and initiates questioning which is usually based on their own research interest and aim (Brinkman & Kvale, 2005). Whilst this is more likely to occur in a traditional interviewing technique (e.g. the neutral space is most likely chosen by the interviewer, such as an office space), the walking interview allows the interviewee to feel more in control of the setting and partly of the questioning, by choosing where to go depending on

where their experiences of the events before, during, and after the earthquake take us. Also, walking around those significant places chosen by the interviewee meant the interviewer was less of an abstract element within the interview process (e.g. someone simply collecting data), seeing those places triggered strong emotional responses in the interviewer too which might have helped the interviewee to see the interviewer more as a real individual (with values and beliefs of their own) than as simply someone doing research. That might allow for less of a power imbalance between the two parties. The pilot study has shown this as both the interviewees and interviewer quickly became very comfortable around each other, and therefore sharing emotions was made easier for both parties.

Walking interviews need to take account of the weather in terms of appropriate clothing and whether the walk should be postponed. The problem with the latter is that most research is conducted on a tight schedule and it is not easy to re-schedule interviews. This seemingly minor point can have major implications for the conduct of the research.

The walking interview has proved to be very useful in the context of the earthquakes. It provided the opportunity for participants and the interviewer to share powerful thoughts and emotions in relation to specific sites that were of importance to the participant. The flexibility of the method is critical, as a site that acts as *lieu de memoire* for one person has no relevance to another. This is a specific approach to the walking interview that is relevant when there are

specific sites of interest to the participants. A similar example would be walking around a battlefield with veteran participants or exploring childhood memories by walking around the places frequented by the participants when they were children. These are all place-responsive, where the actual site of walking will impact on what the participant says, and how they interact with the interviewer.

A walking interview where there is no place responsiveness, but the interview takes place while walking, is outside the remit of this discussion. The walking interview employed in this research aims to bring the interviewee back to the scene of what happened and to their significant places, providing them with the opportunity to recall more effectively the impact of what happened to them psychologically and socially. However, when using a walking interview where there is no place responsiveness, there might still be factors that will change the nature of the interview, such as walking side by side without making eye contact as often, or the simple exercise involved.

One note of caution, while it may appear that a comparison is made with the walking interview favourably against the traditional sedentary interview, this is not the intention. First, there is no data to make such a comparison at this stage, and second, the sense of place is still important for those taking part in the sedentary interview, as the place of the interview may be noisy, the seats uncomfortable, there may be interruptions, and so on.

### **3.7 Conclusions**

Over the last few years, there has been a growing interest in qualitative research in places and health research because these methods allow to gather richer accounts of participants' perceptions and subjective interpretations about the places in which they live (Dennis et al., 2009). An emphasis on contexts has long influenced theory, methodology, and research in psychology (Bronfenbrenner, 1979; Lewin, 1946). It is within social contexts that a community's culture is developed (O'Donnell & Tharp, 2012); culture is expressed through a community's political and economic systems, history, language, values, and behavioural norms (Cohen, 2009; Tharp, 2007).

Walking interviews represent one of those methods that have gained the attention of a variety of disciplines, from social sciences to geography to anthropology (Carpiano, 2009; Anderson, 2004; Reed, 2002). This is because walking interviews can generate richer data through participants' relationships with their familiar surroundings (Evans & Jones, 2011).

Walking interviews explore the relationship between what people say and where they say it; the data generated through this methodology is very much informed by the environment in which the walking interview takes place. This shows the importance of the environment as a co-producer of dialogue (Brown & Durrheim, 2009).

Walking around with the interviewees not only enhances the quality of data collected, but it also allows the interviewer to engage in the interview on a different level which cannot be achieved with a traditional sedentary interview. We are not claiming that this methodology will benefit all forms of research, but there is certainly a place for it in a wide range of areas. Research has already been developed about the importance of using walking methodology to understand the relationship people establish with their surrounding environments and their subjective experience as pedestrians in urban settings; this might lead to improvements in our knowledge around urban planning and public health which can be critical (Miaux, et al., 2010).

The walking interview protocol presented in this study is aimed at those who wish to try out this technique and is a first attempt at such a protocol at the site of a natural disaster. The next chapter sees the use of the walking interview on a larger scale which does not only increase the understanding of the human impact of earthquakes, but also further develops the understanding of the strengths and relevance of the walking interview as a valid technique.

## **Chapter 4. Social and Community consequences of the 2009**

### **L'Aquila and 2016 Amatrice Earthquakes**

#### **4.1 Introduction**

The literature review (Chapter One, p. 17 - 62) has demonstrated the current gap in the research into the social and community consequences of earthquakes for survivors and their community.

For many years, the main focus of psychological research relating to the impact earthquakes have on individuals has been on psychological disorders such as Posttraumatic stress disorder, Anxiety, and Depression (Naeem, et al., 2011; Askari & Rowell, 2015). Albeit interesting as they have helped to address several important points (e.g. implementation of interventions to reduce post-disaster psychological problems among survivors, and appropriate distribution of funds to support mental health centres) (Rubonis & Bickman, 1991), only a small subset of survivors actually meet the criteria to receive a mental illness diagnosis (Creamer et al. 2001, Lloyd & Turner 2003, Kessler et al. 2005).

As illustrated (p. 30), multiple factors can be taken into account when analysing the consequences of natural disasters (Goldmann & Galea, 2014), including demographic factors (Zhang, et al., 2011), pre-disaster factors (Brewing, et al., 2000), during disaster factors (Ma, et al., 2011) and post-disaster factors (Breslau, et al., 1998b). Little research has been conducted on post-disaster

factors; these include community disruption, lack of social support, temporary or permanent relocation, and life stress (Breslau, et al., 1998b). These factors have an impact on individuals' psychological and physical well-being; individuals' access to social support at times of distress can in fact prevent the development of severe and chronic mental illnesses (Brewin, et al., 2000; Xiong, et al., 2010).

This chapter aims to explore how post-disaster factors can have a major impact not only on individuals, but also on their community. It also aims to illustrate how earthquakes can lead to severe social disintegration by completely changing the social structure and identity of the community affected, and how this can impact on survivors' quality of life years after the event occurred.

Walking interviews were conducted following the protocol (D'Errico & Hunt, 2019) described in the pilot study (Chapter Three, p. 93 - 117) with participants from both L'Aquila and Amatrice. The walking interviews were completed between March and November 2018 and their transcripts were analysed using Interpretative Phenomenological Analysis (IPA; Smith, et al., 2009).

## **4.2 Methods**

### **4.2.1 Participants**

The population of this study is survivors of the 2009 L'Aquila and 2016 Amatrice earthquakes. Fifteen people participated to the study, nine from L'Aquila (4 women and 5 men) and six from Amatrice (5 women and 1 man) (Table 4.1).

Access to participants was provided by the two charities who acted as gatekeepers, based in L'Aquila and Amatrice, respectively "Associazione 180 Amici" and "La Via del Sale".

**Table 4.1** *Participants' information*

<b>Pseudonym</b>	<b>Age</b>	<b>Profession</b>	<b>Hometown</b>
Annalisa	28	Admin	L'Aquila
Luisa	64	Retired (social worker)	L'Aquila
Matteo	73	Retired (banker)	L'Aquila
Valerio	59	Engineer	L'Aquila
Luigi	63	Engineer	L'Aquila
Michele	46	Carpenter	L'Aquila
Monica	28	Student (psychology)	L'Aquila
Nadia	66	Retired (psychologist)	L'Aquila
Paolo	28	Council employee	L'Aquila
Emma	21	Unemployed	Amatrice
Imma	22	Admin (building company)	Amatrice
Letizia	30	Jeweller	Amatrice
Federico	38	Council employee	Amatrice
Lorenza	22	Bartender	Amatrice
Emanuela	20	Unemployed	Amatrice



#### 4.2.2 Procedure

A semi-structured interview schedule was developed from the following areas of interest: participants' experiences of the earthquakes from the emergency period (including relocation) to more recent events (e.g. reconstruction), and the community disruption that affected survivors' social and personal life and their future expectations.

Once the participant and the interviewer met, the interviewer introduced herself and thanked the participant for having agreed to engage in the study.

The interviewer read the information sheet and explained the reason why the participant was invited to attend and introduced her research aims.

The concept of confidentiality was explained, and participants' right to withdraw at any time without consequences was also discussed. The interviewer prompted any potential questions from the participant before asking them to sign a consent form. Once the consent form was signed, the participant was asked to identify a few places considered significant for the purpose of the study (e.g. where they were the night of the earthquake, meeting places, where they were relocated). Participants were able to take breaks at any point during the walking interview if needed.

Finally, the interviewer explained the function of the Dictaphone (and the idea of using it as a microphone to be moved around between the interviewer and participant) and asked the participant to speak as clearly and loudly as possible

to help ensure the recording did not miss any important information whilst walking.

More details on the walking interview protocol can be found in Chapter Three (p. 93 - 117).

#### **4.2.3 Analytic strategy**

The walking interviews were analysed using Interpretative Phenomenological Analysis (IPA, Smith, et al., 2009). IPA's main aim is to understand participants' lived experiences by prompting participants to share detailed information regarding their experiences (Langdridge, 2008). The six steps described by Smith and colleagues (2009) were followed to analyse the walking interviews' transcripts.

Further information on the rationale for the use of IPA and details on the six steps followed can be found in the Methodology Chapter (p.74 - 78).

#### **4.3 Results**

In this chapter, results from the analysis of the transcripts were split into three main areas: L'Aquila, Amatrice, and a Comparison between the two towns.

#### 4.4 L'Aquila

Through the analysis of the walking interviews conducted in L'Aquila, two overarching themes were identified, within them several super-ordinate and sub-ordinate themes were also found. The following table (Table 4.2) illustrates them.

**Table 4.2** *L'Aquila's master table of themes*

<b>Overarching themes</b>	<b>Super-ordinate themes</b>	<b>Sub-ordinate themes</b>
<b>Community Disruption</b>	Places	A New Social Structure: Traditions Collapse
		The Negative Impact of Relocation on Residents' Opportunity to Support one another
		Ten years later: The Ongoing Reconstruction
	Relationships	Feelings of Solidarity in the Immediate Aftermath
		Long-term Social Disintegration
<b>Social Identity</b>	'Terremotato' for Life	
	The complex Relationship with L'Aquila	

#### **4.4.1 Community Disruption**

The first overarching theme is '*Community Disruption*'. Participants described how the 2009 L'Aquila earthquake has led to severe community disruption which has extensively affected their quality of life years after the event occurred. The main areas of concern explored by participants were '*Places*' and '*Relationships*' which were therefore identified as the super-ordinate themes under community disruption.

##### **4.4.1.1 Places**

The importance of people's bond with their environment has been made clear in the literature review and throughout the pilot study (p. 48 and p. 93 - 117) where the Place-Attachment theory (Altman & Low, 1992) has been introduced and explored. The theme '*Places*' was identified as one of the main themes. Prompting participants to reflect on the consequences of the earthquake from a community and social perspective while walking around key sites has led to an in-depth exploration of participants' loss in terms of symbolic places and emotional attachment to them. The first super-ordinate theme under '*Community Disruption*' is '*Places*' which was then broken down into three sub-ordinate themes: '*A New Social Structure: Traditions Collapse*', '*The Negative Impact of Relocation on Residents' Opportunity to Support one another*', and '*Ten years later: the Ongoing Reconstruction*'.

#### 4.4.1.1.1 A New Social Structure: Traditions Collapse

The earthquake not only destroyed the actual places that were once a symbol of L'Aquila's community life, it has also affected their traditions. While walking around the town centre, participants were able to bring the interviewer (the author) back to the time when L'Aquila was full of life and busy. Participants explained how people would meet in the town centre for a walk, a coffee, a drink every day. Participants talked about how there was no need to get in touch as all you needed to do was walk around the town centre:

*"... around 17.30 Piazza Duomo (the main square in the town centre) would be packed with kids playing around while their mothers would just sit together and talk ... as members of a community ..."* (Luigi, 63, male)

*"... this was L'Aquila's characteristic, you didn't have to make any arrangements ... you would just walk under the pillars and meet people ..."* (Nadia, 66, female)

Participants agreed that one of the first things authorities should have done was rebuilding the town centre as it was the heart and soul of L'Aquila; this would have allowed people to have a space to get together and maintain their traditions even during the crisis:

*"The thing that I blame Celente (ex-mayor) for ... the town centre was the heart of our town ... we had an outdoor shopping centre. All of the shops were there ..."*

*we all used to meet there ... the first thing they should have done was rebuild the town centre ...” (Luigi, 63, male)*

After a natural disaster, survivors need sheltering and essential goods which are definitely recognised as a priority. However, what participants were trying to explain was that after having managed the emergency period by giving people shelter and food, authorities’ focus should have been on rebuilding the community by creating spaces and places where people could have gathered and supported each other. From participants’ narratives it became clear how the lack of social support in the immediate aftermath and in the following years has had a major impact on them and their community’s quality of life in terms of access to social support and ability to maintain long-lasting friendships which have slowly been affected by the lack of social gatherings.

In addition, participants described how new traditions are gradually developing with concerns regarding the new habits younger generations are especially engaging in. Participants claimed that drinking alcohol and taking drugs seem to have increased after the earthquake. In the town centre, which is currently under reconstruction, the only places that have reopened are bars and restaurants which means that these are the only places where young people can spend time together. Participants suggested that the lack of meeting places and social life has spread sadness and melancholy among younger generations which might be one of the causes behind the increased use of alcohol and drugs.

Substance misuse might be perceived as a maladaptive coping strategy by young

people to deal with a town centre that does not offer much anymore, and therefore their only opportunity to 'have fun' and get together could be restricted to consuming substances. This is upsetting for older generations who have known L'Aquila from a very different perspective:

*"... younger generations seem to have chosen this area (talking about an area close to the main square). Before the earthquake, this used to be one of the many meeting points in the town centre, now it's a place for social marginalisation, a crack den ..."* (Luisa, 64, female)

Almost ten years after the earthquake, people have got used to new places and new traditions (such as going for a walk in the shopping centre); and while at first people wanted to come back to the town centre and bring it back to what it was, now they seem to have almost moved on. As emotionally painful as this must be, L'Aquila's residents seem to have accepted the idea that they will never get back what they have lost, and that they will need to gradually adjust to this new reality and community life:

*"...at first people really wanted to go back to the town centre, now after nine years everyone has built a different reality and are now moving away from it ... forming new places ... new relationships ... is very difficult ..."* (Luisa, 64, female)

*"... there won't be a social reconstruction; there will simply be a new social structure ... isn't this something more realistic to believe in?"* (Nadia, 66, female)

This could be perceived as a positive and appropriate approach towards this new reality; though while talking and walking with participants this sense of radical acceptance was not clearly evident. When they discussed having to accept this new reality, most of them appeared sad and nostalgic as if a part of themselves has left forever with the town the night of the earthquake:

*“... the emotion ... the feeling is of having lost something forever ... that’s it.”*

*(Matteo, 73, male)*

Having lost their traditions and places where those traditions were passed from one generation to the next, has meant losing a part of themselves too. Despite having lost everything, participants still seem to hope for the return of elements of their community life before the earthquake.

#### **4.4.1.1.2 The Negative Impact of Relocation on Residents’ Opportunity to Support one another**

Post-disaster survivors’ relocation can lead to health care disruption, social network changes, and psychological distress (Uscher-Pines, 2009).

A few months after the earthquake occurred, survivors were moved from the tent cities to more permanent relocations; options were coastal towns or apartment complexes built in the aftermath called Progetto C.A.S.E.



At the time, the Prime Minister stated that this was only a temporary housing situation and that people would be able to go back to their own houses within two years. Today, only a few people have had the opportunity to move back; most houses in the town centre and surroundings are in fact still under reconstruction. Some people were prompted to leave L'Aquila and move to the coast, some others were prompted to opt for the Progetto C.A.S.E on the outskirts. Participants felt the community was completely torn apart as a consequence of this decision:

*"... there was a complete depopulation because they prompted people to leave and move to the coast .... So depersonalising. I understand that they sent away families with young kids and the elderly, but why tryg to send away people like us who have no problems and want to help?" (Luisa, 64, female)*

L'Aquila residents were separated from one another and they found themselves alone at a time where they needed social support; they needed to share their pain and be there for each other. When I asked participants why people were separated from one another, they explained that the authorities made every decision based on the results of an algorithm without taking into account people's needs:

*"... they said they left everything to this algorithm ... but how is it even possible that not one resident has a neighbour or a friend or a family member in the same Progetto Case as their own?" (Nadia, 66, female)*

These decisions made by national and local authorities have consequently aggravated the community disruption experienced by L'Aquila residents. The relocation meant that survivors were not only moved away from the town centre, but also separated from one another hindering their opportunity to access social support. Van der Kolk (2014) explains that many traumatised people find themselves out of sync with those around them that have not shared their same experiences, and they can only find comfort around those who did (e.g. veterans). Focusing on a shared history of trauma helps to reduce the sense of isolation that can be experienced by trauma-survivors.

#### **4.4.1.1.3 Ten years later: The Ongoing Reconstruction**

Ten years after the earthquake, the entire town is still undergoing reconstruction. L'Aquila is surrounded by cranes and the town centre is full of lorries, bricklayers, contractors and engineers.

The main concern shared by participants is that even though it looks like the reconstruction is happening everywhere, it is really only an illusion as most of the funding has been directed to rebuild the high street, while the rest of the town and the outskirts are mostly left as they were right after the earthquake struck:

*"... in television they say that L'Aquila is all good ... yes, the high street! But what about 10 metres from it?" (Nadia, 66, female)*

Even if they really wanted the town centre to be rebuilt, it now feels too late as most people have moved to the outskirts which means that going to the town centre needs to be planned as it is not as close as it was before. Moreover, since only the high street is under reconstruction and there are not many shops open, people do not see the point of going to the town centre as it feels like walking in an open construction site. Participants said that, if they can, they completely avoid going to the town centre. This might also be related to the fact that seeing the entire town centre surrounded by cranes and building sites can act as a trigger for their trauma; while walking around the town centre and seeing people walking around too, the entire place is quiet. People look around and it almost feels like they are trying to pay their respects for what happened; many lost their lives under those buildings, and all the residents have lost a community to relied on:

*“Some of my friends don’t really go to the town centre anymore ... they simply cannot deal with the loss, they can’t cope with seeing the town in its current state ...” (Luisa, 64, female)*

Despite these difficulties, participants still hope to see L’Aquila fully rebuilt. Even if they do not visit the town centre as they used to before, some still want to believe that L’Aquila will go back to what it was:

*“... sometimes I feel like one of those old people who come to the town centre and goes around looking at all the construction sites and says ‘oh see! We are*

*almost there!’ ... there is still hope, something is moving ...” (Annalisa, 28, female)*

From participants’ narratives, it seems as if they are experiencing a real internal battle. On the one hand, they do not want to accept the several changes that their community has had to face as a consequence of the earthquake; and on the other hand, they want to be able to move on with their lives and achieve some form of “new” stability. They describe a constant battle between acceptance and denial of a situation that has been developing for over nine years.

#### **4.4.1.2 Relationships**

Second super-ordinate theme under ‘*Community Disruption*’ is ‘*Relationships*’. In the aftermath of such a traumatic event, people react in many different ways and that might depend on several aspects such as personality traits (Bonanno, et al., 2007), gender (Magruder, et al., 2017), and previous traumatic experiences (Lima, et al., 2014). The way people react to a traumatic event might have an impact on the way they relate to others and accept or provide support. The super-ordinate theme ‘*Relationships*’ was then broken down into two subordinate themes: ‘*Feelings of Solidarity in the Immediate Aftermath*’ and ‘*Long-term Social Disintegration*’.

#### 4.4.1.2.1 Feelings of Solidarity in the Immediate Aftermath

The emergency period is characterised by search and rescue, sheltering, and clearing of all-important arteries (Burton, 2014). In this phase, survivors become quickly involved in the search for those people who need to be rescued; most lives are saved in the first two days from when the event occurred (Zibulewsky, 2001). Straight after an earthquake has occurred, people's sense of safety and stability is at risk. Survivors' entire world has just changed and there is no certainty about what their future will hold.

In the aftermath of the earthquake, most participants described how everyone seemed ready to help each other in any possible way:

*"...we were sharing the same emotions, when you are able to share your emotions with others, your fears and your condition ... sharing everything was amazing. If you needed something, everyone would have been happy to help you ..."* (Paolo, 28, male)

*"... my husband with some of the other neighbours went back inside and realised that both of them (neighbours on wheelchairs) were stuck in the building because the lift wasn't working. So, they went upstairs and picked them up... this mutual support"* (Luisa, 64, female)

This feeling of solidarity in the hours and a few days after the earthquake was experienced by many participants and, as Paolo mentioned, sharing emotions in

a moment of crisis naturally brings people together. Helping each other during a life-threatening event might be a way for people to cope both practically and emotionally with the situation and make sure to be safe. People have an overwhelming sociality during the emergency period after natural disasters (Rodriguez, et al., 2006). The solidarity exhibited is not only towards one's own friends and family members, but also towards strangers. This can be linked back to the concept of social identification (Turner, 1985) explored in the Literature Review chapter (p. 17 - 62). Identification within a specific social group has an important impact on individuals' sense of self- concept and social identity (Franzoi, 2003). Seeing oneself as personally interchangeable with the other members of your own social group means not only sharing the same definition of social reality, but also it means perceiving the other members of that group as part of your own identity (Drury, et al. 2009). Therefore, by helping others (including strangers) in your own social group/community means to an extent helping yourself too (e.g. coping).

During the emergency period, before rescue teams can reach and help, survivors have to rely on their problem-solving skills and on each other to quickly adjust to the situation including saving those who are in danger, moving to safe areas and supporting each other both practically and emotionally.

#### 4.4.1.2.2 Long-term Social Disintegration

Unfortunately, this mutual support did not last for long as participants explained that people started to become selfish and unwilling to share soon after the event occurred:

*"...as soon as the first provisions arrived, there was a real looting; people took things they didn't even need, leaving others with nothing ..."* (Luisa, 64, female)

This led to a first breakdown in relationships as people were angry at each other; this was then exacerbated by survivors being relocated in different areas away from each other. Relocation stopped people from accessing social support. Participants lost track of their friends and while they were used to meeting them every day in the town centre, they ended up not seeing them for months:

*"... for a while we were quite far away from each other ... most of my friends chose to move to the coast ... I am talking about my old friends who I've known for 40 years ... we rarely meet ... we all seem so busy and then we end up spending our days at home on our own doing nothing ... something has been lost ..."* (Luisa, 64, female)

This breakdown continues today, where people struggle to get together due to a combination of having lost the habit and having been away from each other for a long period of time. The natural feature of being part of a community where

people spend time together and create their own history and traditions has been disrupted.

Participants described some of the challenges they faced when having to organise something with their friends as not having meeting points to get together and living far from each other. Before the earthquake, they only needed to walk into the town centre to meet friends, now they have to call each other several days before in order to get together:

*“...we have experienced a social disintegration ... they relocated people far from each other ... some on the right ... some on the left” (Luigi, 63, male)*

*“... as I said, to meet we need to actively look for each other ... and I am tired”  
(Nadia, 66, female)*

When Nadia said she is tired, she probably meant tired of having to put so much effort in order to keep her relationships alive when before the earthquake these relationships would just happen naturally and spontaneously. This represents a big change for the residents of L’Aquila as having to make arrangements in order to meet their friends was not part of their old habits.



#### **4.4.2 Social Identity**

The second overarching theme is *'Social Identity'*. As mentioned in the Literature Review (p. 43), identification with a specific social group has a major impact on the development of individuals' self-concepts, values, beliefs and goals (Franzoi, 2003). Having the opportunity to be part of a social group with whom to identify allows individuals to feel safe within their environment (Keyes, 1998). Through participants' narrative, it became clear that L'Aquila's residents currently struggle to identify themselves as part of a social group, a community. Super-ordinate themes include *'Terremotato for Life'* and *'The Complex Relationship with L'Aquila'*.

##### **4.4.2.1 Terremotato for life**

L'Aquila's residents have created a clear distinction between before and after the earthquake which has left them feeling as having had two different lives and therefore two different identities:

*"...history is divided in before and after Christ, but for us it's before and after the earthquake. I often say in my previous life ..."* (Matteo, 73, male)

The word *'terremotato'*, which in Italian means earthquake survivor, was often mentioned by participants during the walking interviews. This was first mentioned when talking about the emergency period and their time at the tent cities. Participants explained that L'Aquila's residents suddenly became

*'terremotati'*. During the crisis, where the community's identity was already at stake and the most vulnerable, Italian leaders opted for an approach which compromised L'Aquila's residents' social identity even more. Survivors were asked to wear an identity card at all times in order to access their own tent and communal kitchen (therefore shelter and food):

*"... we had to wear an identity card at all times ... with our name and surname ... I refused ... they told me that if I wasn't going to wear it, then I wouldn't have eaten ... the fact that I didn't feel like a 'terremotato' as they wanted ... as they defined us ..."* (Luisa, 64, female)

This was felt by participants as extremely depersonalising and upsetting as authorities did not take into consideration survivors' dignity. As mentioned in the literature review, being part of a group to whom you can positively identify with is fundamental in promoting psychological well-being (Cohen, 2004; Smith & Christakis, 2008), and improving people's coping and resilience skills (Khan, et al., 2014). Therefore, by defining survivors simply as *'terremotati'*, authorities might have seriously compromised their coping and resilience strategies.

Participants also used the word *'terremotato'* to describe the new social group in which some of L'Aquila's residents appear to have identified with. By *'terremotato'*, in fact, participants described those people who completely relied on or requested to be supported by local authorities in everything that concerns their psychological, physical and economic well-being:

*“... there are people who have become ‘terremotati’ for life, those who say local authorities owe me ... they have relied on this role, and continue to live this life of poor ‘terremotato’ ... we need to stand up with our own legs, you can’t always expect others to do it for you ...” (Luisa, 64, female)*

Participants explained that the community is divided into two categories of people. On one side, those who have decided to accept that the earthquake has changed their life and that there is nothing they can do about it and therefore have decided to try and move on the best they can; on the other side, those who are self-defining themselves through the earthquake (terremotato) and are taking advantage of whatever is offered to them and are completely dependent on local authorities.

This identification as ‘terremotato’ has also entrenched L’Aquila’s residents’ conversations. Participants mentioned how, since the earthquake, most conversations’ focus has been the earthquake and its consequences. In the aftermath, the focus was on what happened that night and what they had lost (e.g. house, loved ones, and job); nowadays, the focus is mainly on the reconstruction:

*“... when we met, we would ask: how are you? How’s your house? Where are you based now? ... Now we ask: how is it going with your house? What building company are you using?” (Luisa, 64, female)*

Participants explained that this is affecting the quality of their relationships with friends as it feels like they cannot talk about anything else apart from the earthquake and its consequences. This is upsetting and frustrating at times as they end up finding excuses for not meeting up to avoid this kind of conversation. However, this phenomenon is not always perceived as negative; some participants see it as positive as it has helped them to share their experiences and therefore support each other when needed:

*“... I think it’s natural, because you end up talking about that one thing that has taken over your entire life; and at the time, the earthquake had taken over everything ...” (Matteo, 73, male)*

Talking about the most problematic situation that they were and are still facing now becomes natural; there is almost a need to make sense of it together as a community. Talking about it allows for that shared experience that can then also help them access social and emotional support. Some people might have coped better than others, and might be more equipped to help those who are more in need; participants explained how this help can simply come in the form of a friendly and supportive conversation.

#### **4.4.2.2 The Complex Relationship with L’Aquila**

Through participants’ narratives, it became clear how L’Aquila’s residents really loved their own town centre. A town centre that offered everything they ever

needed and made them feel proud of living there. Unfortunately, the earthquake has severely compromised L'Aquila's residents' relationship with their own town.

Participants' sense of safety and trust in their own environment has been compromised due to the several consequences of the earthquake (e.g. community disruption, relocation, and lack of social support). This relationship breakdown has led to further negative consequences as many people left L'Aquila in the aftermath of the earthquake and decided to never come back:

*"... there are no meeting points, nothing is left and that's why many people have left for good ..."* (Luigi, 63, male)

*"... I can see more and more people who are just not interested anymore ... they have fallen out of love with this town ..."* (Luisa, 64, female)

This clear change in the relationship that L'Aquila's residents have with their own town could potentially lead to further complications in the future; more people could leave and seek stability and safety someplace else. For instance, younger generations might decide not to continue their studies in L'Aquila anymore and that might have a major impact on the economy of L'Aquila itself as the university has been recognised as one of the most important elements of L'Aquila's economy. Therefore, the more people decide to study outside of L'Aquila, the less money is brought into the town.

As the reconstruction is taking a long time and the traditions have now changed, future generations might experience a community life completely different from those experienced perhaps by their parents and grandparents. The whole structure of L'Aquila community life has changed and will potentially change more and more as time goes by and those who knew L'Aquila pre-earthquake die or leave in search of a better quality of life.

#### **4.4.3 Conclusions**

Ten years after the 2009 L'Aquila earthquake, the consequences of the event are still clearly evident on both survivors and their community life. Through participants' narratives, it became clear how the social consequences of the earthquake on their community are still strongly felt today. L'Aquila's residents still live every day trying to cope with the loss of the town centre which was the heart and soul of their entire town.

Losing the town centre has had a major impact on survivors' quality of life as it has disrupted their social life and therefore their opportunity to maintain healthy relationships, which can provide social support and a chance to identify with a social group.

When talking about the support received or the way local and national authorities have managed the emergency period and the aftermath, participants appeared frustrated and disappointed. Participants wished national and local

authorities would have kept their communities safe and together which would have helped residents to provide mutual support when needed.

#### 4.5 Amatrice

Through the analysis of the walking interviews conducted in Amatrice, two overarching themes were identified and within them several super-ordinate themes were also defined. The following table (Table 4.3) illustrates them:

**Table 4.3** *Amatrice's themes*

<b>Overarching Themes</b>	<b>Super-ordinate themes</b>
<b>The Immediate Aftermath</b>	There is nothing to do in Amatrice now
	The Negative Consequences of Donations
	The Negative Impact of Relocation and Empty Villages
<b>Post-earthquake Concerns</b>	Lack of Job Opportunities
	Hope in the Community's Future: an Area Full of Potential



#### **4.5.1 The Immediate Aftermath**

The first overarching theme is *'The Immediate Aftermath'*. Around two years had passed since the earthquake when the walking interviews were conducted in Amatrice; participants had only recently overcome the emergency period (moving from the tent cities to temporary housing), and the community is now facing all of the problems that the earthquake has initiated or exacerbated. During the emergency period, people's focus is on survival (e.g. sheltering and providing food and water); now the focus was slowly shifting towards the reconstruction not only of the buildings, but also of the community structure. The first overarching theme *'The Immediate Aftermath'* was broken down into three super-ordinate themes: *"There is nothing to do in Amatrice now"*, *"The Negative Consequences of Donations"*, and *"The Negative Impact of Relocation and Empty Villages"*.

##### **4.5.1.1 There is nothing to do in Amatrice now**

Amatrice's entire town was considered as the heart and soul of the community life. Amatrice is a small town surrounded by mountains in Central Italy where everyone knows each other. Participants explained that even if you did not have a close relationship with someone; you still knew their name, their family and friends, and where they lived.

Most places where participants used to meet at are currently closed or have been relocated elsewhere; for this reason, Amatrice's residents currently struggle to find opportunities to get together:

*"... Someone who is single and wants to have fun ... has to go someplace else ... and we are talking of 30 to 40 minutes' drive ..."* (Lorenza, 22, female)

*"... there is nothing to do ... something as simple as going out on a Saturday night, now means having to drive all the way to Ascoli, San Benedetto, and Rieti ..."* (Emma, 21, female)

Before, people would go out and there would be a few bars and restaurants open; now, to experience some form of social life people have to drive approximately an hour to reach the closest town. This becomes impossible when you would like an alcoholic drink. Everything in Amatrice now closes for the evening leaving the entire town deserted which consequently leaves bars' and restaurants' owners in economic difficulties. To aggravate the situation even further, many left or are leaving; in particular younger generations who feel the area has nothing left to offer:

*"... because you then realise that even if you really want to stay, sure everything is nice around here, but what do I really have? Nothing. Those who had these thoughts, they simply left. However, I don't think they thought 'I am leaving*

*because I don't really care'. I think it was very difficult. Many have left and moved to Rome ..."* (Lorenza, 22, female)

Participants explained that at the weekend people who were originally from Amatrice and have moved somewhere else to study or work sometimes came back, and the town used to become livelier. However, many of these people lost their house during the earthquake and, as it was not their main house, the government has not given them an alternative option to stay. For many, even if they want to come back to support their family members or friends who have remained, currently do not really have the opportunity to do so. This is consequently having a further impact on Amatrice's economy and future.

#### **4.5.1.2 The Negative Consequences of Donations**

During the emergency period, Amatrice's survivors received donations of not only essential goods, but also agricultural machinery to help the farmers in the area:

*"We would get donations from all around Italy. We would then organise everything on shelves ..."* (Imma, 22, female)

Unfortunately, participants suggested that most of these donations caused friction between the residents as it was felt they were not correctly distributed. Participants felt as if this issue led to further problems regarding community

disruption since it made people more selfish and self-centred. Participants explained that many were the people that during the emergency period took advantages of external donations collecting things that they did not necessarily need:

*“... There were people who would come to us and they would fill in an entire van if they would have been given the chance ... and people who would come and only take what they needed and were expected to take. From there, things quickly escalated ... people would fight for a pack of pasta ...” (Emma, 21, female)*

*“... this lady came and told me she was cold and needed a coat ... she started saying that she didn't like that one or that one ... at one point I asked her whether she was actually cold or whether she thought she was going for a walk in the shopping centre ... ” (Federico, 38, male)*

Participants felt that the whole situation should have been dealt with better as that would have prevented the community from experiencing any more disruption. They felt donations should be really thought through and leaders should create an equal distribution of goods so that no one feels left out but cared for. They believed this could have promoted community togetherness and allowed them to help each other rather than compete for whom gets the most out of the donations received.

#### 4.5.1.3 The Negative Impact of Relocation and Empty Villages

Amatrice is constituted of 69 small villages. Following the earthquake, some of the smallest villages were completely abandoned due to people being relocated to different areas. Participants appeared to disagree with how the relocation was handled:

*"... I would have brought everyone back to their own villages, I would have made the space for them among the ruins ..."* (Emma, 21, female)

*"... It's already extremely sad ... and then you leave an entire village empty ..."*  
(Imma, 22, female)

Some of these villages only had less than 50 residents, and most of them were the elderly. Participants explained how the authorities did not seem interested in keeping these villages alive as only a few people were living there; however, they explained how upsetting it had been for residents as they have simply lost the opportunity to move back to where they spent most of their lives:

*"... here, some villages only had 20, 30, 40, or 50 residents sometimes and you will never see them rebuilding those villages again. At first you might think this is positive; but in reality, you have taken away their houses. They have never questioned how these people would feel about this ..."* (Lorenza, 22, female)

Participants felt the relocation of survivors, even when necessary, should have been kept to a minimum as keeping community members near each other could have promoted community cohesion and access to social support. Survivors already had to deal with the tragedy of having lost everything; being taken away from their area became another source of trauma as it disrupted the relationship with their surroundings.

#### **4.5.2 Post-earthquake Concerns**

The second overarching theme is *'Post-earthquake Concerns'*. Before the earthquake, Amatrice was already struggling to survive as there were very few jobs available, and the lack of universities in the area has led many young people to move away from home to pursue their career's goals. The earthquake has expedited a process that was already clearly happening.

Participants have expressed their worries regarding the future of their community on several occasions throughout the walking interviews. *'Post-earthquake Concerns'* was broken down into two super-ordinate themes: *'Lack of Job Opportunities'* and *'Hope in the Community's Future: an Area Full of Potential'*.

#### 4.5.2.1 Lack of Job Opportunities

Before the earthquake, Amatrice was built in a way that restaurants, bars and shops were located in several areas allowing people to walk around the town and choose where to stop for a drink, have a meal or buy something. Currently, two small shopping centres have been created to allow business owners to reopen their shops. All of the restaurants and bars have been placed in what has been called the 'Area Food' which is located far from both shopping centres. This is experienced as a source of worry for participants as they have noticed that people who come here at the weekend or very rarely during the week tend to go to one of the two areas. If they go to the shopping centres, they might not stop for a coffee or a meal in the 'Area Food' and vice versa; this does not help the local economy to grow:

*"... if they really wanted to have a shopping centre, they should have created one single space where you could have had access to everything. So, if you wanted to go to the bar after your shopping, you didn't have to walk for miles ..."* (Emma, 21, female)

This consequently means that many shops, restaurants and bars are closing down which further reduced the opportunity to find a job in town. More and more people had to leave in order to find a job as the area had nothing to offer. This aspect of Amatrice's economy was already present before the earthquake; however, it has become even more difficult in the aftermath leaving people no other choice but to leave:

*“... when you look around and spend the entire winter where every day maybe three people walk in (in the bar) ... I am 22 now and perhaps in five or six years I will not want to work in a bar anymore ... these are the kind of jobs you find ... there aren't factories ... your only option is to become a farmer ... I don't want to be pessimistic but if you look at how things are today ...” (Lorenza, 22, female)*

*“... It's since September that I am trying to find a job but nothing ... there is nothing ... it's depressing” (Emma, 21, female)*

Emma was interviewed in June 2018 which means that she had been looking for a job for almost a year and found nothing. Emma, as well as other participants, explained that it has become more and more difficult for young people to achieve their career goals and to finally feel independent from their families; they have felt it is not fair on their families to continue to support them as adults.

#### **4.5.2.2 Hope in the Community's Future: an Area Full of Potential**

The main worry for participants is that if something is not done soon to Amatrice in terms of resources and investments in the area, the entire town is destined to slowly disappear. Participants agree that many are the people who are very much in love with their community; however, people will eventually have to face the reality of what this area really has to offer, which is not much:



*“... I love this place ... I love traditions ... However, I am perfectly aware that it is a place that doesn't offer much ... so, I know I'll have to leave eventually ...”*

*(Emanuela, 20, female)*

Participants explained that since Amatrice was already struggling with offering its residents with a social life, job opportunities and an education; they do not want Amatrice to go back to what it was before the earthquake. They are hoping the reconstruction will bring new opportunities and new developments which will allow people to remain in the area.

Participants really believe in what the area has to offer in terms of scenery and natural beauty. Many have talked about the need to promote tourism in the area by investing money in new accommodation facilities (e.g. hotels, campsite, hostels) to allow people to have a place to stay in the area, and in outdoor activities such as trekking paths and ski slopes:

*“... if they would reinvest in the area ... we have amazing products here ... we don't use pesticides ... the water is clean ... you need to start from the products ... like Borbona is famous for the Borbona's bean ... you can just think about promoting a particular product that will help boost your reputation and bring people over here ... you could even think about opening a factory at that point ...”*

*(Lorenza, 22, female)*

The problem is that no one is willing to invest in these areas as they represent a real challenge. The area is located in the middle of the Apennines where no transport reaches (e.g. no trains or buses), and there are no motorways that connect Amatrice to any other major town (e.g. Rome, Naples, Milan) which means having to drive across small countryside roads that during the winter become extremely dangerous due to the snow (this also prevents lorries from driving there which means lack of resources). The problem related to the promotion of tourism is that even if you create new accommodation facilities for tourists, you also have to provide them with a safe way to reach the location and also with activities to engage in; for example, creating pathways for people to explore through trekking or birdwatching. Another problem is that not many people live in the area and those who do are mainly elderly. Investors will probably want younger generations to manage their businesses to promote novelty, but also to guarantee employees with good technological skills which are highly valued in modern society.

#### **4.5.3 A different perspective: receiving local authorities' support in the aftermath of an earthquake**

The rest of the analysis, including L'Aquila's one, has mostly shown authorities struggling to promote community cohesion in the aftermath of the earthquakes. However, one of the participants in Amatrice, described a very different experience when it came to talk about how her local authority dealt with the aftermath.

Lorenza (22), after having talked about her concerns about community disruption and lack of job opportunities as well as others did, talked about the support received from the local authorities in Borbona (one of Amatrice's villages).

Lorenza is the only one who had the opportunity to experience consistent support by local authorities, especially by the mayor of Borbona. She explained how the mayor decided to bring the entire community of Borbona (around 300 people) in one area which also had a bar where people could spend time together. This helped the community of Borbona to maintain their social identification, and therefore promoted psychological well-being and community resilience. Lorenza explained that she believes there is no one single solution for every village, as every village will have different needs (e.g. number and age range of residents). This is why, she felt it is important for local authorities to always talk to community members to understand their needs:

*"... she (the mayor) was born in Borbona and therefore she wants the best for it ... she would come to us (referring to young people) ... and tell us that we had to decide what could be good for Borbona because we are the future of this village, not her. This has helped us to get involved ... if you allow me to make decisions for my community, I do my best to attend meetings and discuss them together ... this has brought the entire community together ..."* (Lorenza, 22, female)

Lorenza explained that having had someone who fought for the community and made sure people were heard was fundamental. The need for someone who acts as a mediator and is ready to let people make decisions could be the key to recovery. It has been demonstrated that when people feel like they can take control over their traumatic experience, it helps them to process the traumatic memory and therefore move on faster (Van der Kolk, 2014).

Lorenza also talked about the help the community received from external authorities. She did not completely disregard them, but it seems like it was more difficult to accept support from those who did not know the community well:

*“... when I was working for the council ... many would call and ask what we needed. Sometimes they were quite rude and abrupt ... I understand you want to help but ... I didn't feel like talking to these people who just came out of the blue during a critical situation ... in that moment the community was not ready for them ... they would come and suggest what we needed ...” (Lorenza, 22, female)*

Lorenza illustrated the importance of remembering that there is a community made of several people who share needs, point of views, and values which need to be taken into account when help is provided.

In line with the literature on the significance of social support in the aftermath of a natural disaster (Brewin & Holmes, 2003; Xiong, et al., 2010; Tracy, et al. 2014), Lorenza has shown how having access to a positive social network is very

valuable. Through her actions, the mayor of Borbona promoted community resilience and cohesion which might guarantee better outcomes long-term. Having had the opportunity to share their opinions without feeling threatened or neglected, allowed people to strengthen even more their relationship with their surroundings, which could mean less depopulation.

#### **4.5.4 Conclusions**

Before the earthquake, Amatrice's residents were already struggling with a town that did not have much to offer. There were very few job and education opportunities, and no meeting points where people could spend time together. After the earthquake, the situation has become even more difficult. Many of the small villages that constituted Amatrice have been abandoned as people have been relocated elsewhere, many shops and restaurants have closed down due to the lack of customers, and many people have left in search for a better quality of life as Amatrice has even less to offer now.

The challenges that residents of Amatrice are facing nowadays are very clear; and it is not certain whether their community will ever be able to recover from this event both socially and economically. Participants still hope for a brighter future for their community, but they also appear aware of what the reality is and know that the next few years might be critical to understand whether the community will be able to survive long-term.

#### 4.6 L'Aquila and Amatrice: a Comparison

Even though the two towns are located in Central Italy and are fairly close to each other; there are many differences:

*"... L'Aquila, from the town centre, has moved around the industrial areas (the outskirts). Around L'Aquilone (the shopping centre) ... sure, you couldn't go to the town centre ... but you could have easily decided to stay ... L'Aquila it's a city; if you want something, you'll find it ... while here (Amatrice) ... you might be lucky if you manage to find a job ...." (Lorenza, 22, female)*

The two events took place at different times (seven years apart) which means that the two set of participants are potentially experiencing the impact of the earthquake from a different perspective (e.g. immediate aftermath vs long-term consequences).

While participants from L'Aquila have had more time to process their loss and to better understand the consequences of the earthquake on their community and social life; participants from Amatrice are still uncertain as the event occurred two years ago and can only make assumptions on what would happen to their town long-term. The idea that L'Aquila's residents are more aware of what has happened to their town and what would probably be its future, has led to a radical change in their relationship with the town itself. As mentioned earlier, participants' sense of safety and trust in their own environment has been affected by the earthquake and it has not yet been restored, and it might never

be as the town is still under reconstruction ten years after the event.

Participants are tired of living in a town that no longer offers what it used to, and this is affecting their relationship with the town and impacting on their community life.

On the other hand, participants from Amatrice are still strongly attached to their town; this could be related to their hope for a better future for their community.

Participants from Amatrice are in fact hoping not to rebuild the town as it was before as the town was already struggling to remain alive; they see the reconstruction as a real opportunity to make things better. However, this might be a denial on their part as no investments have been made in the area. The difference in terms of relationship with the town represents an important element which separates the two sets of the participants; those from L'Aquila are experiencing feelings of nostalgia, sadness and frustration as they might never regain what they had before the earthquake; while those from Amatrice are experiencing hope as they wish for a better future for their community.

Another important difference between the two towns is that L'Aquila is bigger compared to Amatrice which means that after the earthquake, most people from L'Aquila were able to retain their jobs or find new ones as the town offered more; while people from Amatrice were already struggling to find jobs before the earthquake and, now, it has become even more difficult as many shops and restaurants are closing down as there are no customers. Some of Amatrice's residents have moved to L'Aquila as they were able to find a job there which

again shows how L'Aquila has more to offer compared to Amatrice. This is also why people from Amatrice have high expectations towards the reconstruction; they hope it will bring more job opportunities allowing them to remain in the area.

Despite these differences, some similarities were identified between the two groups. Both sets of participants agreed that during the emergency period and in the immediate aftermath, local and national authorities should approach the communities affected in order to open a discussion on what could be done first. They understand that it will not be possible for everyone to agree on every decision made as people are different and therefore have different needs; however, talking to the community to find out what is important to them remains an important element as it validates their experiences and their feelings. This could potentially promote community cohesion as everyone will work together to achieve the best for their community. Participants also describe the importance of having a leader who really cares for their community and its members; this will help residents to approach them with suggestions and concerns without being afraid, and also to have someone who really cares about promoting the psychological and social well-being of the community in the long run.



#### **4.6.1 McMillan and Chavis 1986 PSOC's model applied to L'Aquila and**

##### **Amatrice**

In the literature review (p. 45 - 48), McMillan and Chavis' (1986) Psychological Sense of Community (PSOC) model is described. By applying the model to the results of this study, it is possible to illustrate the impact of the earthquakes on participants and their communities, including differences and similarities.

The *Membership* component refers to the feeling of emotional safety that members of a same community share allowing them to rely on each other and on their environment. Both communities have shown difficulties in this area; with L'Aquila's residents showing higher level of hopelessness in terms of regaining a sense of safety and trust in their environment, compared to Amatrice's residents who still believe in a positive and better outcome.

The *Influence* component refers to the acknowledgment that other's needs, values, and opinions matter, this particularly refers to influential group members (i.e. authorities). This component is compromised as participants from both communities have referred to the lack of social, emotional, and practical support received during the emergency period and in the immediate and long-term aftermath.

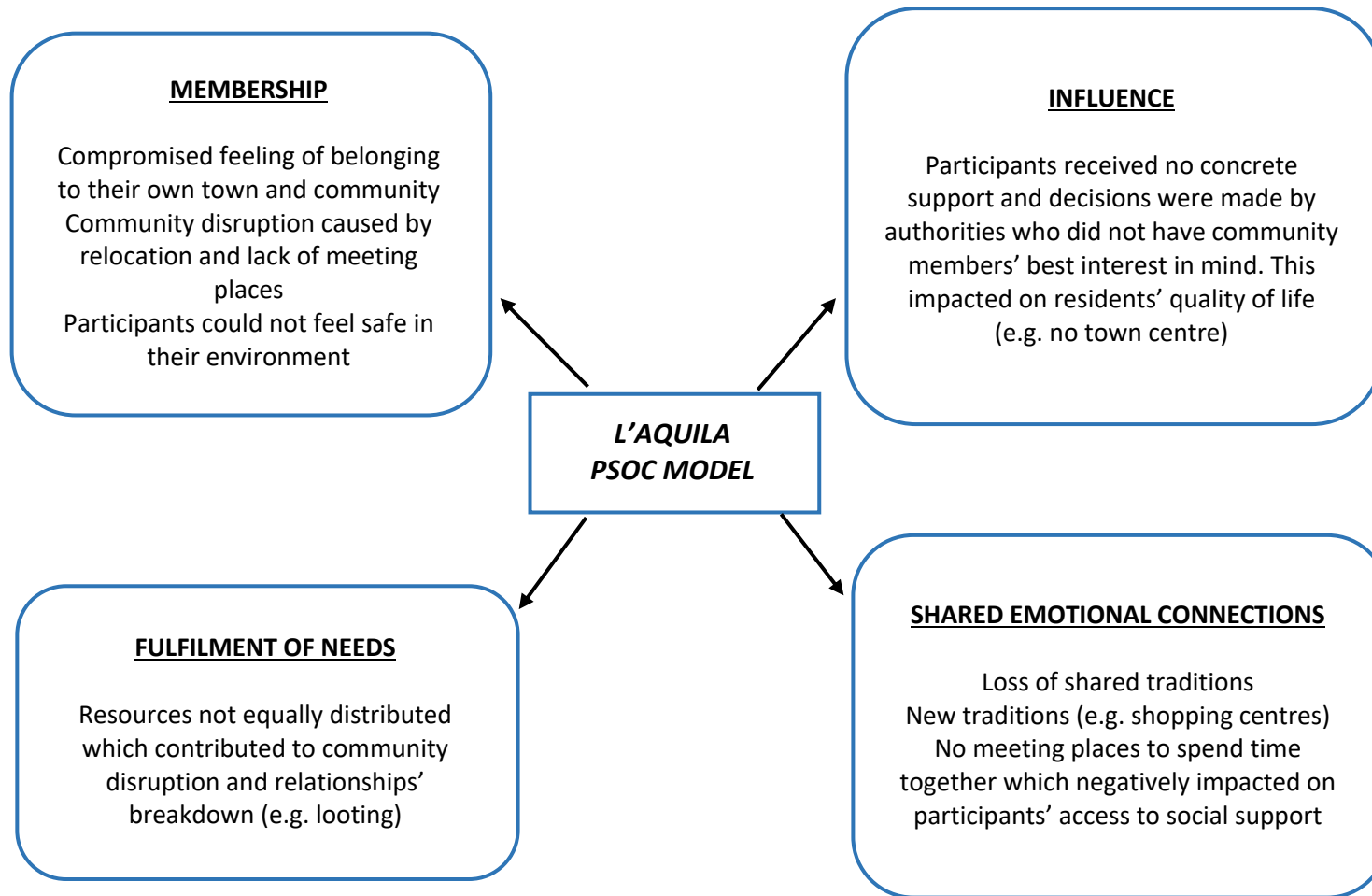
The *Fulfilment of Needs* component refers to the shared effort community members make to help each other to fulfil needs and achieve goals. This component was compromised in both communities as the donations received

were not equally distributed among residents which caused disruption and relationships' breakdown.

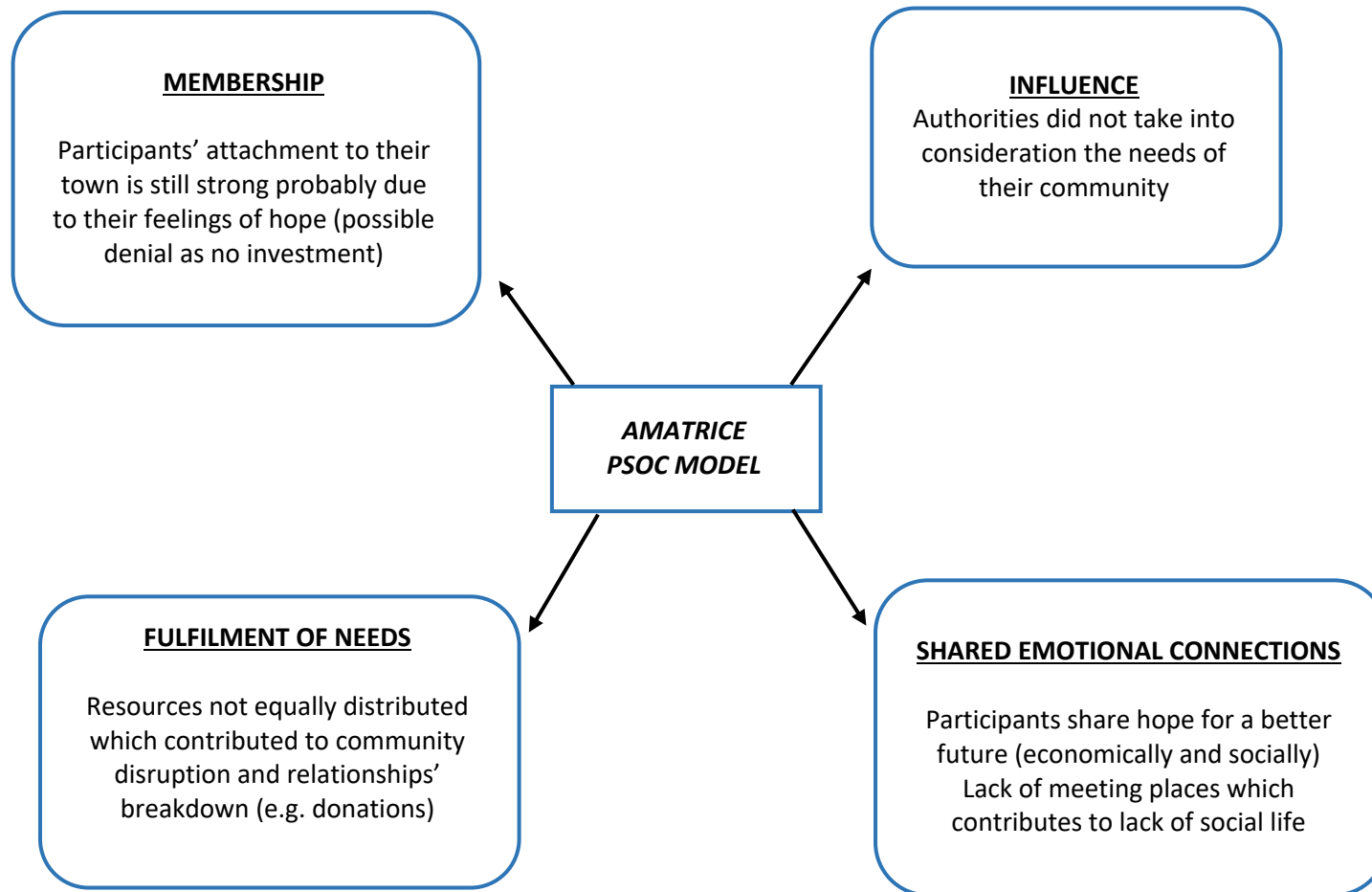
The *Shared Emotional Connection* component refers to community members' shared history, traditions, places and experiences. This component has been severely affected by both earthquakes. Both communities in fact have experienced a loss of their meeting places and a change in their traditions.

The figures below (Figure 4.1 and 4.2) illustrate the McMillan and Chavis' (1986) Psychological Sense of Community (PSOC) model applied to the findings of this study:

**Figure 4.1** *L'Aquila PSOC model*



**Figure 4.2** *Amatrice PSOC model*



Through the analysis of the PSOC model from both L'Aquila and Amatrice's perspectives, it becomes evident how participants and their community PSOC have been severely compromised by both earthquakes.

#### **4.7 Discussion**

The analysis of the walking interviews has demonstrated how both L'Aquila and Amatrice's communities have been severely affected by the earthquakes. The study's findings are in line with the previous research illustrated in the Literature Review chapter (p. 51 - 54) which reported the negative impact that lack of social support and community disruption can have on survivors' psychological sense of community, bond with the environment, and future expectations (Hawkins & Maurer, 2011; McGuire and colleagues 2018). In the aftermath of an earthquake, accessing social support becomes fundamental to help survivors and the community to cope with the many consequences they have to face (loss of house, meeting places, possessions, job, and loved ones); being able to receive and provide social support to one another reduces the psychological impact of the traumatic event and modulates the development of mental illnesses such as PTSD and depressive symptoms among survivors (Brewing & Holmes, 2003; Tracy, et al., 2014).

During the emergency period, survivors struggled to maintain community cohesion. Community cohesion promotes population's health by strengthening both individual and community resilience in the aftermath of a natural disaster

which help survivors to recover after the exposure (Lowe, et al., 2015; Hikichi, et al. 2015). Local and national leaders, by relocating survivors, took away the opportunity for residents to gather together and face adversity as a community. Once the emergency period was over, survivors were relocated to different locations (e.g. from the tent cities to the Progetto CASE or to hotels on the coast). As mentioned in the literature review (p. 54 - 55), relocation has a major negative impact on survivors' psychological and physical well-being (Uscher-Pines, 2009). Participants felt that being relocated exacerbated the community disruption as people were not able to support each other when needed the most.

Relocation also meant being far away from those areas that were considered the heart and soul of the town. Even though these areas are currently condemned or do not offer much (lack of meeting places such as restaurants, shops and bars), participants still feel the need to be close to them and being relocated led to nostalgia, sadness, and frustration. When looking at the connection people have with their environments, it is important to introduce the Place-Attachment theory (Altman & Low, 1992). This study demonstrates the strong bond people create with their environments. Many were the challenges participants had to face, but their love for their surroundings remained strong. Even if participants' sense of safety and trust in their environment was compromised, it has not stopped them from loving their towns and hoping that one day they will still be able to regain what they have lost (L'Aquila) or have a better future (Amatrice).

Participants also described how the community disruption was further aggravated when donations arrived. At first everyone wanted to be helpful and contributed where possible to keep the community safe. However, this changed as soon as donations were unequally distributed among survivors causing tension and frustration which led survivors to seek self-preservation in complete disregard of their community members (e.g. looting). The discussion around crowd behaviour in emergencies has been held for several years (Canter, 1990; Quarantelli, 2001; Mawson, 2017); different models have been identified, including mass panic and affiliative models. Mass panic claims that the crowd is less intelligent and more driven by emotions compared to single individuals, and therefore more impulsive (Le Bon, 1968). This impulsivity negatively impacts on social bonds and personal survival becomes the overriding concern (Strauss, 1944). Affiliative models claim that in condition of threat, we seek familiar faces (loved ones) as they have a calming effect and stop us from simply exiting the situation even at risk of death (Mawson, 2005). In this study, a combination of the two models can be demonstrated. After a period of mutual support and solidarity, things rapidly changed leading to a more detached and individualistic approach. This was mainly caused by the inadequate relocation of survivors (which torn the community apart) and the unequal distribution of resources among community members (which led people to mainly concentrate on their own welfare). When describing the switch from solidarity to detachment, participants mostly focused on the actions perpetuated by strangers and not much on close family members or friends which shows the clear switch from “what does my community need?” to more of “what do my family and I need?”.

As mentioned in the Literature Review (p. 54), Italians really value their communities, especially when it comes to smaller towns and villages as people are more likely to know one another. Italian communities can mostly be described as *Collectivist* communities. In cross-cultural psychology, individualism and collectivism are considered as the basic dimensions that differentiate one community from another (Hofstede, 1984; Triandis, 1990). The main difference between these two dimensions is expressed in the collectivist approach, in which the community is placed above the individual. What matters in collectivist communities is the welfare of the entire community and not the individual's prosperity (Hamilton, 1930). When the collectivist approach is under threat (e.g. in the aftermath of a natural disaster), the community values are themselves at risk of annihilation and new values seem to emerge (e.g. detachment and disinterest in other community members' needs); this usually results in dramatic changes in the social identification of individuals, groups, and society as a whole (Topalova, 1997). This is what seems to have occurred in both communities to some extent.

This chapter has illustrated the impact that earthquakes can have on entire communities and their residents. Earthquakes can completely change the social structure of a specific community, which can lead to several negative consequences, such as depopulation, economic crisis, and breakdowns in relationships. Once the emergency period is overcome, local and national authorities as well as residents might want to collaborate in order to prevent the affected community from having to experience long-term negative impacts.



## **CHAPTER FIVE. New perspectives on the events that followed the 2009 L'Aquila and 2016 Amatrice earthquakes: two focus groups.**

### **5.1 Introduction**

The final study involved the facilitation of two focus groups, one conducted in L'Aquila and one in Amatrice. The aim was to bring members of the community together to discuss not only some of the topics explored by participants during the walking interviews, but also to investigate potential new information and perspectives on the events that followed both earthquakes.

Barbour and Kitzinger (2011) have explored the main features of the focus group methodology in their book *Developing Focus Group Research*. Mostly used by market researchers, the focus group technique has slowly gained a high profile as an effective method among several contexts (e.g. political campaigns). In academia, focus groups have gained increasing attention in recent years and the method is now adopted in a wide range of social sciences.

Focus groups are group discussions which explore the specific phenomenon under study; they are not to be confused with group interviews which mainly consist of asking questions to each participant in turn. Focus groups elicit group discussions; participants are encouraged to talk to one another to generate rich and detailed data.

Focus groups are ideal when the aim of the researcher is to explore people's experiences, opinions, needs, and worries regarding a specific topic. Focus groups in fact help the researcher to examine participants' different perspectives as they work within a specific social network.

The following research questions were addressed:

- What is participants' shared understanding of the earthquake? What is the community perspective on it?
- How has the earthquake transformed the way in which survivors now experience their community social life?
- How has the earthquake impacted on the future of the community?

## **5.2 Methods**

### **5.2.1 Participants**

All participants (3 women and 2 men) of the focus group conducted in L'Aquila had already participated in the walking interview study; while of the six people (4 women and 2 men) who participated in the focus group in Amatrice, only two had already been interviewed through the walking interview methodology (Table 5.1).

The reason not all of the participants who engaged in the walking interviews study had not engaged in the focus groups too, was mainly related to both

charities being relatively small and not all of their members were available to participate in the focus group study when the researcher was on location; the researcher had to rely on an opportunity sample in order to achieve a reasonable group size (between five or six participants per group) as suggested by Barbour and Kitzinger (2011). Having only had participants who did not engage in the walking interview study and therefore would not have been familiar with the research aims, could have possibly changed the content of the focus groups' discussion. However, when walking around the towns and/or sitting at a café or restaurant, the researcher noticed that some of the topics explored during the focus group's interview matched the ones she was able to hear among residents.

**Table 5.1** *Focus groups' participants details*

<b>Pseudonym</b>	<b>Age</b>	<b>Profession</b>	<b>Hometown</b>
Annalisa	28	Admin	L'Aquila
Matteo	73	Retired (banker)	L'Aquila
Flavia	53	Unemployed (previously librarian)	L'Aquila
Nadia	66	Retired (psychologist)	L'Aquila
Paolo	28	Council employee	L'Aquila
Letizia	30	Jeweller	Amatrice
Federico	38	Council employee	Amatrice
Mauro	25	Plumber	Amatrice
Francesca	28	Council employee	Amatrice
Lina	55	Unemployed (previously ran a bar)	Amatrice
Gabriella	58	Unemployed	Amatrice

### **5.2.2 Focus groups' procedure**

Once participants arrived at the agreed location and settled in, the interviewer introduced herself to those she had not yet met and thanked everybody for having agreed to engage in the focus group. As the focus group was run early in the morning, breakfast was provided to help create a comfortable atmosphere for everyone.

The interviewer, while reading the information sheet, explained the reason why participants were invited to attend and introduced her research aims. The concept of confidentiality was explained (including keeping the content of the focus group discussion confidential), and participants' right to withdraw at any time without any consequences was also discussed. The interviewer prompted any potential questions from participants before asking them to sign a consent form.

Once the consent forms were signed, participants were asked to identify a few group rules that would have helped the focus group to run smoothly. The group rules identified by participants included respecting everyone's opinion without judgement, not swearing at one another, and giving everyone space to talk and share their feelings by being mindful of one another's response to the different topic discussed.

Before commencing, the interviewer also explained she would mainly follow an interview schedule, but further topics could be introduced by participants at any point.

Finally, the interviewer explained the function of the Dictaphone and asked participants to speak as clearly and loudly as possible to help ensure the recording did not miss any important information.

### 5.2.3 Focus groups' Practicalities

There are several challenges and practicalities that a researcher might face or have to consider when planning and running focus groups. Barbour and Kitzinger (2011) listed a few of them; visiting the venue in advance to ensure that it is easy to access, and to identify whether there might be anything that could be a source of distraction or cause offence to participants; being able to manage problematic situations including participants disagreeing or arguing (she suggested that unless the argument becomes a real obstacle to the group discussion, it is better to let people confront each other as the information they share might represent invaluable data); and finally, being able to support and prompt quieter members of the group to share their opinions and experiences.

In line with their research, there were several practical difficulties experienced when it came to organising and conducting the focus groups for this study. First, having all participants agreeing a time, date and location for the focus group to be conducted. Being based in the United Kingdom and having to travel to Italy to conduct the research meant that the researcher's time was limited; therefore, not all participants were always available for the dates she was at the location. The focus groups were conducted in December 2018, when weather conditions in Central Italy can become more challenging for travel. Several participants struggled to reach the agreed location on time or at all, due to snow stopping them from reaching their car or in some cases from being able to leave their house (e.g. in Amatrice, two participants had to jump from their window as the main door of their temporary house was blocked by snow).

While the charity in L'Aquila had its own location with several rooms available to be used; this was not the case in Amatrice. At first, the decision was made to ask the owner of the hotel (where the interviewer was staying) whether the focus group could have been conducted in its restaurant in between breakfast and lunch as it would have been quiet. Unfortunately, the day before the focus group, the hotel owner's mum died; the decision was then made not to conduct the focus group there as it would have been insensitive to ask at such difficult time for him. Luckily, one of the participants was happy to do it at his house; but as everyone was attending the funeral, not only the location but also the time of the focus group had to be changed.

Finally, one of the group members in the Amatrice focus group was very quiet throughout the first part of the focus group. The interviewer had to ensure she was prompted to participate in group discussions and, after a few prompts, the participant felt comfortable enough to share her opinion without any further encouragement.

#### **5.2.4 Analysis**

The analysis was conducted using Thematic Analysis (TA; Braun & Clarke, 2006), TA is not based on any particular theoretical and epistemological approach; it can therefore be used within different theoretical frameworks. Through its theoretical freedom, TA is a flexible and useful tool that can provide a rich, detailed and complex account of data. The rationale for the use of TA and the

steps followed to conduct the analysis are illustrated in Chapter Two:

Methodology (p. 86 -87).

Before the focus group began, the interviewer made sure she became familiar with everyone's names and offered everyone breakfast which helped to create a comfortable atmosphere. Having become familiar with participants' names, faces, and voices made the transcription process easier as the interviewer was able to recall what was said by each individual by remembering where they were sitting in the room; this has helped to associate the person to the topic discussed.

## **5.3 Results**

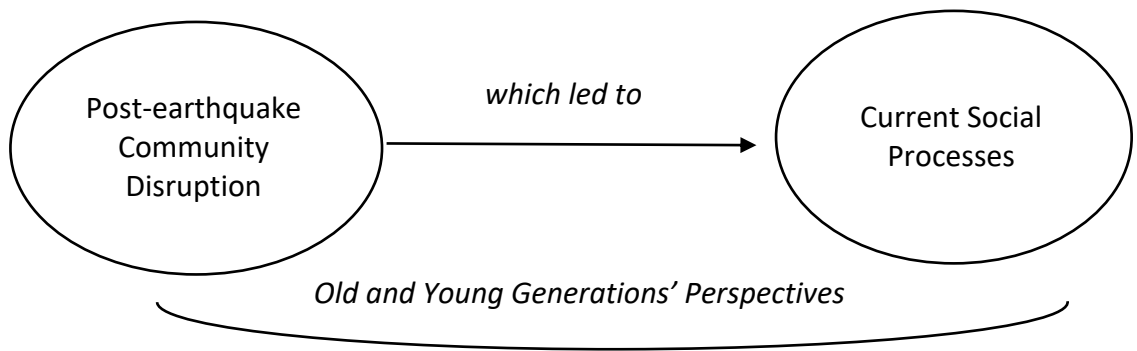
### **5.3.1 L'Aquila**

The focus group conducted in L'Aquila introduced new perspectives on the events that followed the 2009 earthquake. Some of the topics explored within the focus group had already been discussed during participants' walking interviews, but a new perspective in regard to the way people perceive and experience social life was identified as different generations came together to look at the social and community consequences of this complex event.

Two main themes were identified in the analysis process: *'Post-earthquake Community disruption'* which participants believe *has led* to L'Aquila's *'Current Social processes'*. Different perspectives have been illustrated as participants



from *different generations* shared their opinions on the event and its consequences (Figure 5.1).



**Figure 5.1** *L'Aquila's Focus group themes*

### **5.3.1.1 Post-earthquake Community Disruption**

As already explored in Chapter Four (p. 118 - 168) with the walking interviews, the focus group participants discussed the community life disruption that has been evident since the earthquake occurred. In the years that followed the 2009 earthquake, L'Aquila's community structure has slowly changed. The places that were once a symbol of L'Aquila's community social life are now lost and have been replaced by new ones (e.g. shopping centres); participants described feeling lost as their social life suddenly changed:

*"... we felt a bit lost ... we lost all of our meeting places in the town centre ... we felt as if we were not living in a real, actual town ..."* (Flavia, 53, female)

The town centre which was the heart and soul of L'Aquila's social life is now only a symbol of what they had before. Currently, the town centre only comes back to life when big events are organised (such as the Christmas market); participants believe that L'Aquila's residents are not interested in bringing the town centre back to what it was anymore:

*Paolo (28, male): "... during a conference ... our latest mayor talked about the fruit and veggie market; he said that he had tried to bring the market back to where it was in the town centre (Piazza Duomo). He tried because he knew that going to the market was the best time of the day for any old lady who would go there to buy something and then meet all of her friends ... but L'Aquila's residents do not want it there anymore ..."*

*Nadia (66, female): "Well, people don't live there anymore!"*

The point made by Nadia is that since people have been relocated away from the town centre (e.g. Progetto C.A.S.E and on the coast), going to the town centre no longer makes sense. First of all, people do not want to go there because it is not the focus of L'Aquila's social life anymore. Secondly, the entire area is surrounded by cranes and building sites as the reconstruction is currently still happening. When asked about the reconstruction and the future of L'Aquila, different perspectives were shared which seemed to be dependent on participants' age:

*“In two years’ time, I will be 68. And what about when I will be 72? I just don’t care how L’Aquila is going to be. I like to see the buildings being repaired, sure it’s nice ... but who’s going to live there when the town centre is not what it was before?” (Nadia, 66)*

*“I always say, have you seen how pretty the things are that they have done? ... our heirs will get to experience them ... but they are not for me.” (Matteo, 73)*

Older generations see the reconstruction as something that does not really belong to them as by the time L’Aquila will be fully reconstructed, they might not be there anymore. Their own sense of community was lost the night of the earthquake as their social life completely changed and has not yet gone back to what it was. Whatever L’Aquila will be in the future, it will not be for them to experience.

On the other hand, younger generations as well appear not to have particular expectations in regard to the future of L’Aquila and their own. They simply accept what has been done so far for L’Aquila by trying to be grateful for every achievement:

*“... I don’t have any expectation ... in that way, whatever comes that is good, it’s simply good ... I just observe and hope for the best, but again without expectations ...” (Annalisa, 28, female)*

Although many people confuse acceptance with giving up (Risdon, et al., 2003), McCracken and Eccleston (2003) claimed that acceptance represents a positive coping strategy which might help people to stop their constant search for a definitive solution (which in this study might be wanting to return to what it was before the earthquake and expecting L'Aquila social life pre-earthquake to be completely re-established), and focus on more positive everyday activities and other aspects of life. The role of acceptance therefore might promote individuals' psychological well-being long-term.

The main difference between these two groups of people (age wise) is that those who were in their 50s when the earthquake occurred, saw their entire life completely and suddenly changed; whilst at first they were hoping to see everything as it was in a few years' time, as time went by they became more and more hopeless. On the other hand, there are those who were in their teen years when the event occurred which meant that they grew up with the consequences of the earthquake. They were not really experiencing L'Aquila's social life as it was before as they were too young to fully understand it; therefore, whatever will come next will probably be felt as better than having a town centre completely surrounded by building sites. Anything L'Aquila will be able to offer to them in the next years, will probably be something to be grateful for.

### 5.3.1.2 Current Social Processes

While discussing the changes experienced in terms of community life, participants explained that some of the changes since the earthquake may not have only been related to the event itself, but also to the way in which human beings now build and maintain community life, not only in L'Aquila, but everywhere in the world:

*"... in my opinion, the earthquake has accelerated some [social] processes ... certain things perhaps, even if not in the same timeframe, would have happened anyway even without [the earthquake] ... some might have begun earlier [in L'Aquila] than in any other towns ... perhaps in other towns they have occurred in a 10 year' timeframe? ..." (Annalisa, 28, female)*

*"I don't think it is something that is only happening in L'Aquila; I feel there has been a global impoverishment in regard to education, respect, and morality ..."*  
*(Nadia, 66, female)*

An example of these changes has been the replacement of the town centre with shopping centres. Historically, town centres have often been considered as the places where people come together (Staheli & Don Mitchell, 2006); and from participants' narratives it was evident that L'Aquila town centre was the place where community members would gather; the heart and soul of L'Aquila.

After the earthquake, which completely destroyed the town centre, shopping centres have taken over this function becoming the main place people spend time together:

*“... L’Aquila had this characteristic ... people loved to go out for a walk ... regardless of their age ... you didn’t need to call anyone as you knew you would have met them at the pillars. I guess this now happens in the shopping centres”  
(Nadia 66, female)*

Participants explained that this transition from the town centre to the shopping centre is not something to only relate to the negative impact of the earthquake, but simply to the changes in the way human beings, especially younger generations, now create and experience community life:

*“... I’ll give you a stupid example, my sister is six years younger than me ... the day before [the earthquake] it was a Saturday, and for me that meant going to the town centre ... My sister, even though the town centre at that point was still very beautiful, was at the L’Aquilone [shopping centre] with her friends, even before [the earthquake] ...” (Annalisa, 28, female)*

In light of the new circumstances (lack of a town centre), L’Aquila residents had to adjust in order to experience some form of social life; many started to rely on shopping centres to meet up with friends and family members. Even if the introduction of the shopping centres as a new way of experiencing community

life has not been completely perceived as positive (compared to what they had before in the town centre); the shopping centres allowed L'Aquila's residents to have a place to spend time together and maintain (even if only partly) community cohesion.

Previous research has demonstrated how some commercial establishments (e.g. shopping centres) may enhance consumers' well-being by providing a space where people can engage in meaningful social interactions (Nicholls, 2010). This is even more crucial among younger generations who might not have had the opportunity to experience the town centre as it was before the earthquake occurred (because they are too young to remember), and all they know is L'Aquila as it is now. Perhaps for them, the shopping centres constitute the only form of community life they have ever experienced.

However, with the shopping centres now fully embedded in L'Aquila's community life, the hope of seeing the town centre as it was before being surrounded by shops, restaurants, bars, and more is even more difficult. This is not only happening in L'Aquila as the town centres of many contemporary cities have now been abandoned and shopping centres are now considered as "*the heart of 'legitimate' public, where sociability, civility, and commerce again flourish*" (Staeheli & Don Mitchell, 2006).

Participants also discussed about the increase in the use of alcohol and drugs that has been seen among adolescents in recent years; this topic was briefly

introduced by participants also during the walking interviews' study (p. 126 - 127):

*"Nowadays people drink and take drugs. One can say that this might be a consequence of the earthquake, or maybe not. We don't know, but it is happening. I personally cannot remember such a big substance misuse when I was 14 years old myself; sure, there were a few people abusing, but not as much as today. Today, if you don't do it, you are special." (Paolo, 28, male)*

Disasters have severe effects on the mental health of children and adolescents, these include symptoms of depression, anxiety, memory problems, and substance misuse (Bolton, et al., 2000; Yule, et al., 2000). Using substances following mass trauma can be one way in which adolescents cope with emotional distress (Overstreet, et al., 2010). Although experimentation with illicit substances is not unusual in adolescents, substance use in the context of stressful life events has the potential to develop into abuse (Brown & Abrantes, 2006).

However, participants were mostly likely describing people who were only children when the earthquake occurred, and they may not fully remember what happened during the event and in the aftermath. Their current emotional distress might be related to multiple reasons. An example could be found in family dynamics, disasters in fact affect entire family units (Pfefferbaum, et al., 2015). Parents are the primary support available to children following a disaster



(Gewirtz, et al., 2008); they are themselves likely to face numerous challenges as they attempt to cope with the several physical and social consequences of such traumatic events. Parental stress therefore becomes a robust predictor of children's post disaster recovery (Norris, et al., 2002). Some of the family and social factors that might lead to psychological distress in children include lower socioeconomic status, high parental distress, and poor parental coping. Also, parents who are too restrictive towards their children's opportunity to engage in different activities following disasters (such as meeting friends on their own) may in the end contribute to adverse outcomes (including substance misuse) (Pfefferbaum, et al., 2015).

During the focus group, it became evident that participants' overall feeling was that these changes will continue to occur as L'Aquila's community life continues to change throughout the years. New generations, characterised by a different way to socialise and get together as a community, are now prevailing on all of those old traditions which were once representative of L'Aquila's social life.

### **5.3.1.3 Conclusion**

At the end of the focus group, the interviewer was left with a few important questions "After almost 10 years, even if the entire town is still under reconstruction, can we still talk about post-earthquake consequences?" and "Have the social processes identified by participants only been a consequence of

the earthquake or are they part of the bigger changes brought by living in a modern society?”

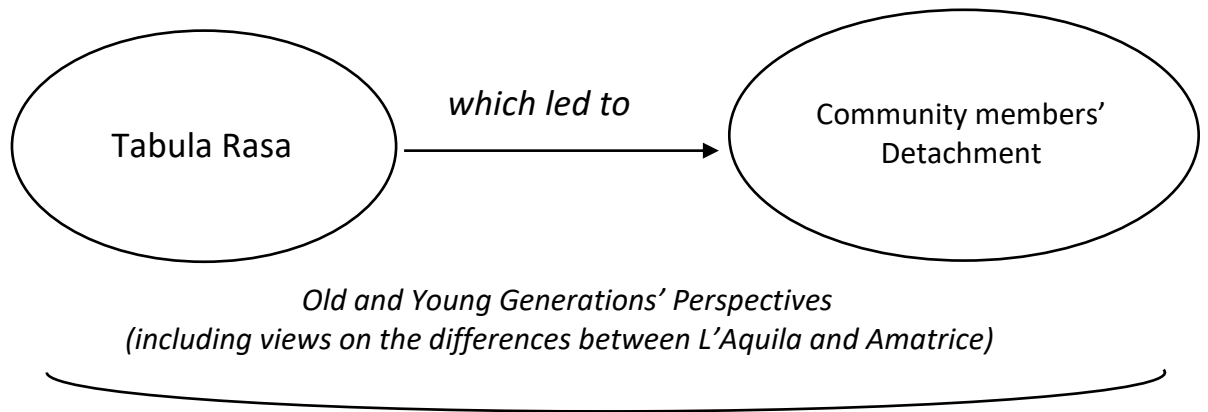
Perhaps the earthquake has led to many of the social processes that are naturally and slowly happening across the globe. The question posed here is whether these social processes are happening in L’Aquila at exactly the same rate as other places around the world or not. Due to the negative impact that the earthquake has had on L’Aquila’s community life, participants (and more widely their entire community) have assumed most of these social processes as mainly caused by the earthquake itself. Justifying these processes by using the earthquake is defined as reasoning which is considered typically human and adaptive (Evans, 2002). What this means is that residents of L’Aquila’s community are possibly trying to justify these processes by using the earthquake as the main cause in order to deal with novel and unexpected circumstances and to anticipate the future (Evans & Over, 1996).

New generations are heading towards new ways of socialising (e.g. social media and shopping centres) and this might have and has had a huge impact on the way communities develop their own psychological sense of community, so we need to ask ourselves how much of the earthquake is still the catalyst for what we are currently seeing happening in L’Aquila.

### 5.3.2 Amatrice

As was done for L'Aquila, the focus group conducted in Amatrice introduced a new perspective on the consequences of the 2016 earthquake. Participants illustrated their concerns regarding the possibility of Amatrice slowly disappearing as more and more villages have lost all of their residents, and new generations are losing hope as less job opportunities are available. Participants discussed how they believe that the impact of having lost everything (as the entire area was completely left in rubble) has had and will have major negative consequences on the future of their community long-term.

Two main themes were identified through the analysis process: *'Tabula Rasa'*, as the entire area was completely destroyed and nothing was left, which has somehow led to *'Community members' Detachment'* as their relationship with their environment has been compromised by the event (Figure 5.2). Again, as for L'Aquila, participants from *different generations* shared their opinions on the event and its consequences; when looking at the consequences of the earthquake, participants inevitably looked at the *differences between L'Aquila and Amatrice* in terms of community recovery.



**Figure 5.2** Amatrice's Focus Group themes

### 5.3.2.1 Tabula Rasa

The 2016 earthquake completely destroyed Amatrice's town centre, considered the heart and soul of the entire community life, which left people with nowhere to go and with nothing to hold on to (e.g. job and house):

*"... I can see it in people's eyes ... this emptiness ... in our area it has been a real tabula rasa ... there is nothing left ..."* (Lina, 55, female)

Participants explained how after the earthquake, all they were looking at was the clock tower in Amatrice town centre which represents the symbol of their community. It was the only thing which remained standing after the earthquake that participants felt they could identify with. As further smaller earthquakes kept occurring, the entire community kept waiting to see whether the clock tower would eventually collapse:

*“... during the aftershocks, the only thing was to see whether the clock tower on the main street would eventually collapse. I think if the tower would have collapsed, we would have all disappeared. It was our symbol, and it would have been the symbol that everything was over. The end of everything.” (Lina, 55, female)*

This demonstrated the strong attachment of Amatrice’s residents to their town and how seeing it completely destroyed by the earthquake has had a major negative impact on the relationship between residents, their sense of community, and trust in their own environment.

Throughout the focus group, a strong feeling of hopelessness was felt among participants as they feel the earthquake has caused so much disruption that the future of their community is at risk:

*Mauro (25, male): “... I think they won’t build our houses back ...”*

*Interviewer: “... Why do you think so?”*

*Mauro: “... they haven’t started rebuilding Amatrice town, can you see them actually rebuilding our small villages?”*

Mauro is referring to the 69 small villages that surround Amatrice town; many have already lost all of their residents (which sometimes were as many as 20) and concerns have been raised about whether it makes any sense for them to be rebuilt.

As already mentioned in Chapter Four (p. 149 - 150), many of these villages were already slowly “dying” as their residents were mainly elderly people and younger people are now slowly leaving the area in search for a better future (including a better career perspective):

*Francesca (28, female): “... these were villages that were already asleep ... they were already dying ... they didn’t even realise it ...”*

*Gabriella (58, female): “It gave them [the earthquake] the final hit”*

Residents’ place-attachment has severely been compromised by the earthquake; the loss of residents’ significant places (including many of the small villages) has prompted a shared feeling of instability and fear. The general concern is that as the community disruption continues, more people will leave the area which will consequently continue to exacerbate the current circumstances.

One of the problems mostly discussed by participants in the group is the lack of job opportunities and the lack of interest from residents to actually find a solution. Participants described how the earthquake has led to this sort of community detachment from the needs of the whole community, which has aggravated an already complex situation.

### 5.3.2.2 Community members' Detachment

Since the earthquake has occurred and caused severe community disruption, more detachment has been noticed to have spread among survivors, as explained throughout the focus group by participants. The community which they have slowly built throughout history, a community made of meeting places, churches, schools, houses and more, is almost gone and there is nearly nothing left with which to identify and take care of. People appear to be more secluded into their own lives and focused on their own interests and benefits, which participants claimed seems to have made them more detached and less able to share with other community members.

As the entire town has been left into rubble, Amatrice's residents' interest in what is going to happen to it is slowly fading. Their hope for a better future or for the survival of their community is becoming less realistic as time goes by. Already the increasing lack of job opportunities has been forcing residents, especially young adults, to seek jobs elsewhere which means that they are not interested in investing back into their own community:

*"... people don't care ... I [people] work in Rieti; therefore, why would I care? I leave for work in the morning and I come back at night so who gives a fuck ..."*

*(Francesca, 28, female)*

When discussing about hope and future career opportunities, the entire group became frustrated. The older people in the group could barely cope with the idea that the young ones were giving up without even trying:

*Mauro (25, male): "... it's getting worse and worse ... in 10 years' time I won't have a job anymore ... and of course I'll have to leave ... or what else?"*

*Lina (55, female): "... young people ... him ... instead of saying it's getting worse and worse ..."*

*Mauro: "Eh, I know but ..."*

*Lina: "Nooo .... You cannot tell me something like this ... you need to get up and do something ..."*

This feeling of detachment and hopelessness which the residents of Amatrice have experienced and are still experiencing now became even more aggravated when donations were made by external bodies to support the community of Amatrice in the aftermath of the event. This was already partly explored during the walking interviews study. After the earthquake, many donated money to the community of Amatrice to help rebuilding people's farms or businesses.

Unfortunately, it is not very clear what this money has actually been used for:

*Letizia (30, female) "... we [individual community members] have received thousands and thousands of euros. They have all been managed badly ... those who have actually received the money, what have they done to ameliorate the situation? Have they created new jobs?"*



*Federico (38, male) "No"*

*Mauro (25, male) "No"*

Once again this demonstrated how most people seem more interested in their own wellbeing and welfare rather than trying to reinvest into their own community to allow for it to recover from this tragic event.

Most people have utilised the money received for their own benefit (e.g. buying new equipment for their own farm or new domestic appliances for their houses). No one has thought about building or investing in their own community; this could have helped create new job opportunities allowing people to remain in the area and ultimately rebuild the community itself. As mentioned in Chapter Four (p. 153 - 154), the whole area offers a lot of amazing organic products (e.g. saffron, beans, and cheese) and tourists' attractions (e.g. mountains, birdwatching, and snowboarding). The options are several, but perhaps people are not willing to put in the effort and to risk their own money in case of failure:

*Lina (55, female): "... people are afraid of moving forward ..."*

*Federico (38, male): "... you need to be brave"*

*Letizia (30, female): "You need to be brave. This is what is missing. Maybe of 100 people, 3 would."*

Because of the current difficulties the area is facing, which are partly related to the earthquake and were partly already present before the earthquake

occurred, investing in it can definitely be risky. People cannot really predict whether their business will succeed or whether they would find themselves in an even more complicated situation (e.g. with no money). Their fear and worries can definitely be understood as opening a business always comes with worries about what would happen to both the business and to them, but in Amatrice's case these concerns multiply as the area already offers very little, including the number of people who could potentially access that specific business.

### **5.3.2.3 Participants' views on the differences between L'Aquila and Amatrice**

Some of the similarities and differences between L'Aquila and Amatrice have already been explored in Chapter Four (p. 158 - 165); during the focus group in Amatrice, while exploring the consequences of the earthquake and their impact on the community's future, participants explored their differences even further. As L'Aquila and Amatrice are only 50 km apart, Amatrice's residents often drive to L'Aquila to have a look at how the reconstruction is proceeding. Every time they go there and see the town still surrounded by cranes and with many places still left in rubble after almost ten years, they somehow face the reality of a process that is going to take a long time:

*Mauro (25, male): Have you been to L'Aquila? How long has it been?*

*Interviewer: Almost 10 years*

*Mauro: And can you see any particular progress?*

*Interviewer: It has been very slow*

*Mauro: Imagine how long it will take here ...*

Participants explained that the two places are fundamentally different as L'Aquila was a bigger town which was very well known not only by Italians but also outside of Italy; Amatrice was a smaller town which was barely known by people. It was sometimes recognised because of the 'amatriciana' (a famous pasta dish of the area), however not everyone was always able to associate the 'amatriciana' with Amatrice itself:

*"How can you not abandon us? You don't even know where Amatrice is. If I ask you to point it out on a map, you wouldn't even know where it is ..."* (Lina, 55, female)

Participants' main concern is that they will be forgotten, and things will continue to escalate to the point that Amatrice will slowly disappear. The reconstruction in Amatrice, two years after the earthquake, has not even been started.

Participants explained how as you walk or drive through Amatrice town centre and many of its small villages, it still feels as if the earthquake has only occurred a few months ago. Participants' concerns in regard to the future of their community are understandable; a community that already struggled to remain alive before the earthquake and is now facing one of its biggest challenges.

#### **5.3.2.4 Conclusions**

As the bond with their environment is impaired, Amatrice's residents seem to struggle to care and fight for their own community. This might not be the case for all residents of Amatrice; however, as more people seem to become detached from their sense of community, the more problems the community itself might encounter in terms of remaining alive. The hope that has been shared by participants is for new investments to be made in the area which could hopefully help the community of Amatrice to survive; unfortunately, this has not happened yet. Many are afraid of making the investment or simply not interested as they are not sure how long the community of Amatrice will remain alive for. On the other hand, if no investments are made, no job opportunities will be available which will drive young adults away from the area in search for a better future, which is understandable. This will inevitably accelerate the entire process. It is difficult to say what it is going to happen to the community of Amatrice in the next five to ten years, more and more young adults are leaving the area and less opportunities to grow as a community and recover after the earthquake seem to be available.

#### **5.3.3 Reflecting on the Focus Groups' experience**

As illustrated in the Methodology Chapter (p.87 - 89), when it comes to qualitative research, reflexivity becomes a key component to achieve better quality research and increased validity (Mays & Pope, 2000). After each focus

group, I made sure I took some time to reflect on how I felt and what emotions were triggered in me as a consequence of the topic discussed by participants.

The decision to conduct focus groups after the walking interviews study was based on the idea of bringing community members together and providing them with a safe space to reflect and share their experiences and opinions; something that was not provided throughout the emergency period and afterwards, as discussed by participants during the walking interviews study. It was an opportunity for them to get together and reflect on the events that occurred before, during, and after the earthquakes, and for me to gather even more detailed information regarding the impact of the community disruption.

A benefit of having conducted the walking interviews first was that I had gained a general understanding of the topics discussed and had been and seen most of the places described by participants throughout the focus group. This allowed me to become more familiar with some of the content explored by participants during the focus groups, and consequently promoted a more free flowing conversation among participants, who did not feel it was necessary for them to stop the conversation in order to describe the places introduced within their narrative.

As the focus group's interview schedule was guided by the findings of the walking interviews, I was of course expecting that most of the topics discussed would be very much linked to the ones explored during the walking interviews

and I was interested in seeing whether different and contrasting opinions would show among participants. It should have not surprised me that regardless of their single and unique experience of the earthquake, they somehow shared the same sort of opinions and feelings towards the events that had occurred (e.g. mostly anger and disappointment towards the way in which their community has completely changed). Their Psychological Sense of Community (PSOC; Sarason, 1974) is so ingrained that even when it was at risk due to the challenges they had to face post-earthquakes (e.g. relocation, donations), it somehow managed to survive among them and help them to maintain their community's shared values (e.g. loving their surroundings and hope for a better future).

Participants, however, went beyond those topics and reflected on other elements which have allowed me to reflect on the way in which communities nowadays are slowly changing (e.g. virtual communities) and how that is having an impact on our way to perceive and experience PSOC (Sarason, 1974).

Perhaps, if I was to conduct the same studies in a few years' time the way in which people perceive and experience PSOC from those changes will be even more pronounced as younger generations take full control of our communities.

One of the aspects that became more evident to me through the focus groups, was that both L'Aquila and Amatrice's communities, even after almost ten and two years respectively since the earthquakes, are still mourning for their loss. A loss that today is still having a major impact on their lives and has changed the

way in which they live their community life and their bond and trust with their own environment. As humans we construct our world symbolically giving it meaning (as also illustrated through the social constructivist approach, p. 89), when these meanings are disrupted or lost (e.g. in the aftermath of an earthquake), people can experience bereavement (Love, 2007). Bereavement is the state of having experienced a loss and refers to the period after that loss where the person engages in grief and mourning (e.g. feeling of despair and loss). Brennan (2008) explained that people mainly mourn the loss of meaning that comes from the predictability of everyday life, which is usually taken for granted; people do not expect their loved ones to die while going about their daily activities and/or to suddenly lose everything they had because of an event they could not control. The world they thought was safe is suddenly gone (Anderson, 2010). All of these feelings are also likely to be renewed every year when associate events occur (e.g. anniversaries) or, in this case, when walking around the town centres under reconstruction or still surrounded by rubble is a constant reminder of that loss.

Because of the difference in timeline (ten and two years later), the way in which the communities are mourning is different. On the one hand you have L'Aquila's participants whom do not have much expectation regarding the reconstruction, they are simply waiting and accepting what they are seeing knowing that L'Aquila as it was before the earthquake will never come back. On the other hand, you have Amatrice's participants whose hope is still very much alive and, regardless of all of the challenges they had to face (e.g. donations), they are still

hoping to see a better future for their community, a future that could hopefully transform their community in a positive way (e.g. investments in the area which could bring more job opportunities and stop young generations from leaving the area). Perhaps Amatrice's participants' feelings might change in the next few years and become more similar to the ones shared by L'Aquila's community (e.g. disheartened); my hope for both these communities is to find happiness within their "new" community life.

Overall, I would say that the focus groups have given me the opportunity to become even more aware of the consequences of the earthquakes on a community level, I had the chance to share their emotional response to the events that followed the two earthquakes. I think anger and disappointment were the two most present emotional responses that I felt coming from each participant. I felt I had a huge responsibility when listening to their stories, the stories of their communities, and I am very glad I get the opportunity to share them.

#### **5.3.4 Discussion**

From the focus groups analysis, it became evident that both earthquakes have critically destabilised the dynamics of L'Aquila and Amatrice's community life, including residents' bond with their surroundings and their perceptions of the future. A lot of uncertainty is shared by participants of both groups as there is no clarity on what will happen to L'Aquila and Amatrice in the years to come. On the one hand, there is L'Aquila which was a busy community characterised by



several traditions (e.g. walking in the town centre and meeting friends); and on the other hand, there is Amatrice which was already struggling to remain “alive” as more and more young adults were leaving the area in search of a better future. Even though the two communities do have differences, they both share a feeling of uncertainty and hopelessness when asked about the future of their community. The way residents are perceiving their community is slowly changing which is affecting their social life and the way in which they will create the foundation of their own community in the future. More detachment has been experienced and noticed which might be related to the idea that people do not have a place to identify with, to fight for, and to take care of. The bond community’s residents usually create with their environment (Altman & Low, 1992) is damaged and is affecting people’s willingness to rebuild and believe in a better future.

A new perspective was also illustrated, especially throughout the focus group conducted in L’Aquila where participants have had a greater opportunity to process their loss for almost ten years. Recently, it seems as there has been a widespread shift from tradition to modernity; a non-territorial approach is slowly gaining force as a result of modern advances in communication (e.g. social media) which have almost eliminated the need for territorial proximity (Colombo, et al., 2001). Virtual communities are slowly replacing the need to be placed somewhere, to belong to a specific place-based community. Virtual communities are virtual social groupings characterised by the presence of affective bonds among their members (Jones, 1997). More and more people,

especially younger generations, are slowly building and relying on these new communities. They are often being experienced similarly to the way people experience effective face-to-face and place-based communities (Blanchard & Markus, 2002).

In communities already disrupted by events such as earthquakes, the advent of new generations, such as Generation Z, which might be more keen on virtual communities, aggravates an already challenging situation. Generation Z (Williams, 2015) represents those people who were born in the 90s and raised in the 2000s. Malone (2007) defines Gen Z as the 'bubble-wrap' generation as these children are raised by overprotective parents who do not allow them to walk to school, play in the street and socialise with other community members (a possible example could be those parents who had experienced the 2009 L'Aquila earthquake, and might now be terrified with the idea of losing their children if they leave them on their own). These children are isolated, but highly engaged in a virtual peer ecosystem (Tulgan, 2013) made of several social media platforms (e.g. Facebook, Instagram, TikTok) which keep them safe and away from real life relationships, and promote high self-centred individualism which leads to difficulties in the social sphere (e.g. not being able to work within a team, to compromise when needed, and to share with others) (Singh, 2014). Malone continues by explaining that these children, now young adults, are not equipped with the resilience and skills needed to be competent and independent environmental users. One can only imagine how this can have a major impact on these young adults' chance to build their own sense of

community when their contact with that community is hindered. The frustration perceived by those participants who belong to a different generation is understandable; they are seeing their community completely impacted by the advent of these new generations who do not care much about the future of the community as much as they care about their own and on what they can do to make it better (e.g. leave).

In the aftermath of a natural disaster, how realistic is it for new generations who have been raised by “frightened” parents and have been prevented from experiencing the community social life to rebuild a disrupted community when their own community is mainly virtual? Perhaps, Gen Z has experienced the impact of the earthquake as less of an obstacle on their opportunity to build their own sense of community due to a huge global shift towards virtual communities which allow people to have a community without having to have an actual place (e.g. meeting points such as cafe, restaurants, etc.). Are we actually seeing a new way to perceive and experience sense of community and to create a bond with our own environment? Further research on this topic could explore the new ways in which people are now creating their own communities, developing a sense of community, and finally creating a bond with several significant places with which to identify.

## **CHAPTER 6. General Discussion**

### **6.1 Introduction**

The overall aim of this PhD was to explore the impact of the 2009 L'Aquila and 2016 Amatrice earthquakes on survivors and their communities. The research objectives were to understand the extent to which community disruption has led to increased lack of social and emotional support (mainly related to temporary or permanent relocation and lack of meeting places) and has negatively impacted on L'Aquila and Amatrice's communities' future.

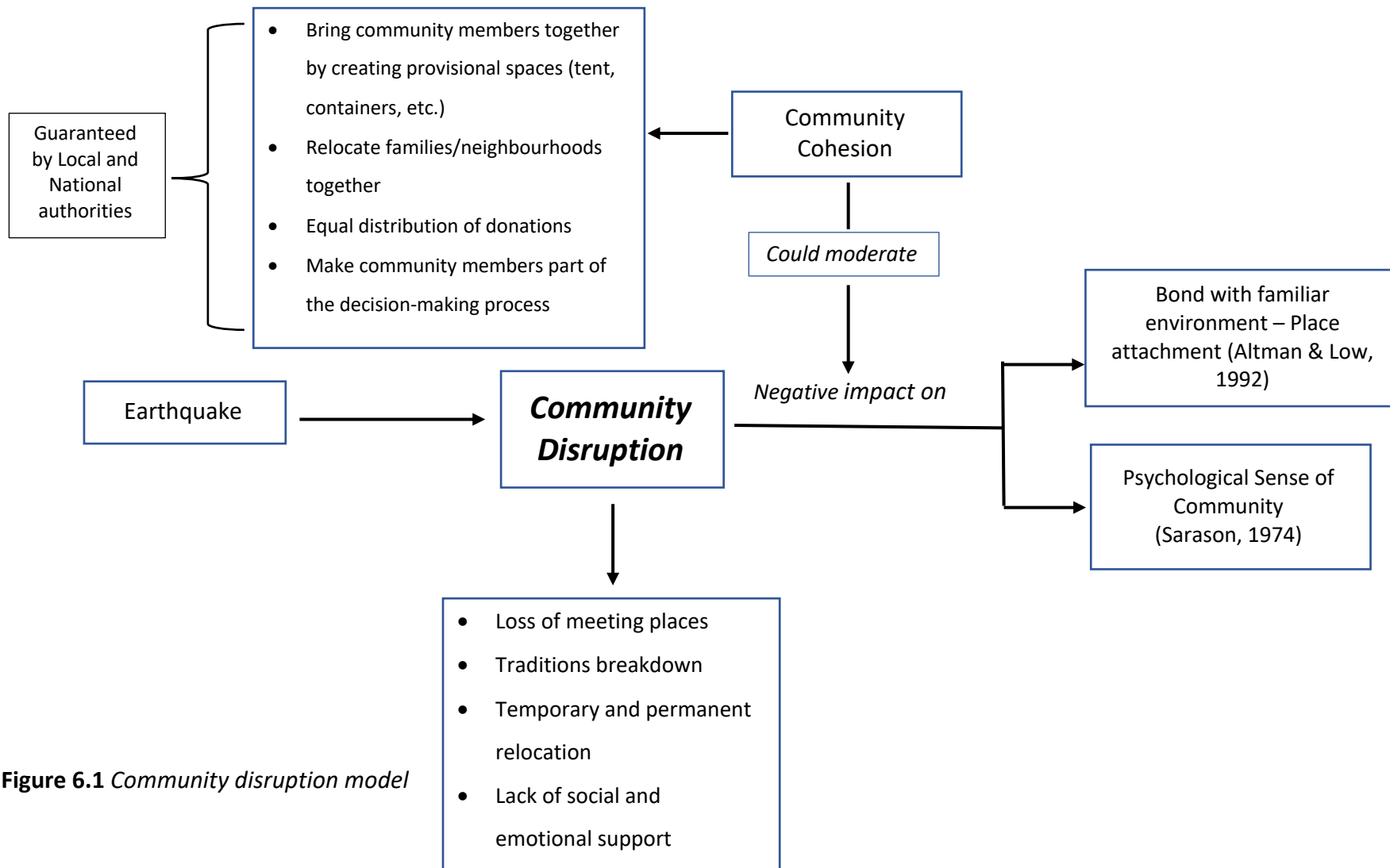
Walking interviews, a fairly new qualitative interviewing technique, were used to gain a deeper understanding of participants' attachment to their surroundings and consequently their loss. As walking interviews had not been used before at the site of a natural disaster, a pilot was used for developing, implementing, and evaluating an appropriate walking interview protocol for use in a situation where the environment becomes critical to the purpose of the interviews (D'Errico & Hunt, 2019). Once the protocol had been established, further walking interviews took place with participants from both L'Aquila and Amatrice to explore participants' lived experiences of the earthquakes with a particular focus on social consequences (e.g. lack of social support, relocation). The information gathered in the walking interviews study informed and guided the final study, which aimed at exploring participants' shared understanding of the

earthquake and community disruption by using focus groups. Two focus groups were conducted, one in L'Aquila and one in Amatrice.

The purpose of this final chapter is to summarise key findings, discuss the implications of these findings in relation to the development and implementation of plans attempting to ensure post-earthquake community cohesion, and recommendations for future research. Finally, this final chapter aims to illustrate the limitations of this research.

## **6.2 The impact of the earthquakes on L'Aquila and Amatrice's communities: community disruption model**

Both the 2009 L'Aquila and the 2016 Amatrice's earthquakes have led to severe community disruption which has negatively affected residents' psychological sense of community, bond with their environment, and future expectations. The following diagram summarises and illustrates the findings of this study (Figure 6.1):



**Figure 6.1** *Community disruption model*

The several components of this model will now be broken down and explored.

### **6.2.1 Community disruption**

Even if L'Aquila and Amatrice had some clear differences (e.g. population density, job opportunities, etc.), both communities appeared to have experienced significant community disruption. This was mainly caused by the loss of meeting places which mostly collapsed or were damaged during the earthquake (e.g. town centres, restaurants, cafes, local shops, churches, and schools) and by the temporary and permanent relocation of survivors. Some of these aspects were further aggravated and/or initiated by the decisions made by local and national authorities as residents' voices and needs were very rarely heard and respected.

The loss of meeting places hindered people's opportunity to see each other at a time where mutual emotional and practical support was fundamentally needed. Many traumatised people usually tend to find comfort around those who have had their same experience as that allows them to feel less isolated and share their pain (Van der Kolk, 2014). The lack of meeting places has then slowly led to the introduction of new traditions (e.g. meeting at the shopping centres rather than in the town centre) which has been felt by participants as a radical change in their social structure (Chapter Four, Nadia's quote, p. 127). Before the events, the town centres were the heart and soul of L'Aquila and Amatrice; residents used to meet in the street where most shops, cafes and restaurants were, but

now that these places are not there anymore or have moved elsewhere people have mainly gathered in shopping centres. The difficulties in accessing social and emotional support were also aggravated by survivors being relocated far from each other; family members were separated as well as neighbours, and entire villages were emptied with their residents being moved elsewhere. The impact of relocation on disasters' survivors has been explored in the literature review chapter (p. 54 - 55); in line with previous findings (Uscher-Pines, 2009; Koyoma, et al., 2014), this research has shown how disasters' survivors' relocation might have major negative consequences (e.g. lack of social support, living condition changes, relationships' breakdown, and hindered sense of safety and stability) which have a long lasting impact on survivors' quality of life and their community and social life. It has been ten years since the earthquake in L'Aquila and two years since the one in Amatrice and, in both cases, the impact of the earthquakes is still felt not only by their residents, but also by whoever walks around those streets.

### **6.2.2 Disruption of people's bond with their environment**

As shown by the diagram (Figure 6.1), the community disruption caused by the earthquakes and experienced by survivors of both towns has hindered the bond people usually create with their own environment; a bond that allows people to feel safe and stable. The literature review has illustrated the relevance of the Place-Attachment theory (Altman & Low, 1992; p. 49) when exploring the impact natural disasters have on communities. Place-attachment, the affective



and cognitive bond people create with their important places (Scannell & Gifford, 2010), is central to human experiences (Scannell, et al., 2016). Important places offer people the opportunity to express and affirm their own identity and to share interests and values with other community members (Gurney, et al., 2017). Place-attachment has been observed in all individuals regardless of their cultural backgrounds (Lewicka, 2011) which demonstrates how important it is for people to be able to identify themselves with specific places.

Place-attachment's principles are often associated with those of interpersonal attachment (Bowlby, 1982). Both place and interpersonal attachment involve maintaining physical and emotional proximity to the important place or person respectively. When looking at interpersonal attachment, Bowlby (1982) explained that infants maintain closeness to their important person (e.g. mother or father) by crying, crawling towards them, smiling, and more; while when looking at place-attachment, proximity and closeness involve buying a house in a specific area or city, going back to the same place every year, or even refusing to evacuate when that important place is threatened (Kelly & Hosking, 2008; Donovan, et al., 2012). Secure interpersonal and place attachment can offer a perceived sense of safety and security (Bowlby, 1982; Lewicka, 2010) which promote an infant's exploration of the surrounding environment (Feeney & Trush, 2010) and, similarly, allow the individual to explore new places while always being able to return to their safe base (Gustafson, 2001). As this bond can be very strong, the loss of the attachment figure/place can cause severe

grief, alienation, and disorientation (Cox & Perry, 2011). Psychologically, belonging is extremely valued while ostracism is considered as extremely negative (Leary, 2010). Belonging to specific important places helps people to connect to their ancestors and cultures (Billig, 2006; Mazumbar & Mazumbar, 2004), reinforces social ties (Kyle, et al., 2004), and simply provides people with a place they can call home (Cuba & Hummon, 1993).

Place-attachment can be considered one of the key elements of this research as both earthquakes severely disrupted people's bond with their environment by destroying their significant places and leading to the need for relocation. For L'Aquila, the bond was mainly disrupted by residents having lost their town centre and having been temporarily and permanently relocated. Losing the town centre meant losing their oldest traditions (e.g. meeting friends under the pillars). People used to meet every day in the town centre for a coffee, a drink or simply a friendly chat. Every participant who engaged in the study explained how losing the town centre with all its significant places meant losing the heart and soul of L'Aquila's community life; their everyday routine changed and their chance to spend time with friends and family members was severely hindered. Additionally, a few months after the earthquake occurred, people were relocated from the tent cities to more permanent locations. The Progetto C.A.S.E, apartments complex, were built on the outskirts of L'Aquila which exacerbated the disruption in residents' relationship with the town as they were separated even further from the town centre. New places have slowly begun to replace old ones (e.g. shopping centres). While a few years ago people still

seemed interested in bringing the town centre back to how it was before, now after ten years from when the event occurred, L'Aquila's residents have started to accept, as there is no other option, this change in their social life.

As for L'Aquila, Amatrice residents' bond with their surroundings has also been severely affected by the disruption of their entire town. In the aftermath of the earthquake, Amatrice was completely left in rubble. Compared to L'Aquila where somehow the community life has slowly been re-established in the outskirts; Amatrice is slowly losing several of the 69 small villages that used to surround it due to the relocation of their residents which at times could have been less than twenty per village. Participants' feeling is that these small villages will never be reconstructed again as they are mostly inhabited by elderly people and therefore not a real priority for authorities. Additionally, younger people who are clearly fond of Amatrice as demonstrated by some of the participants who engaged in the study, are slowly losing motivation; they are starting to leave the area in search for a better future as there are no new job opportunities and there is a clear lack of social life as those few cafés and restaurants that were once there are now in most cases permanently closed.

If we once again link place and interpersonal attachment, it appears as if, after the earthquakes, L'Aquila and Amatrice's residents almost developed an insecure form of attachment towards their environments. Attachment insecurity has been found to negatively impact on individuals' well-being (Lavy & Littman-Ovadia, 2011; Wei, et al., 2011). On several occasions, participants have

described how their sense of safety and trust in their own environment has been disrupted since the event occurred, to the point that even in their own rebuilt and safe houses they still do not feel safe. On the other hand, throughout this PhD, participants' love for their towns was made very clear. Even when most of them seemed exhausted, frustrated and unmotivated, it is clear that their connection with their surroundings is still there and it is strong. Some of them told me how angry they have been with their town as it has so suddenly taken everything away from them. However, when you walk around their towns or sit in a room with a few of them (whether during the focus group or simply going out for a meal), you cannot stop thinking that it feels as if they essentially had their heart broken.

### **6.3 Affected Psychological Sense of Community**

The literature review in Chapter One has illustrated the Psychological Sense of Community (PSOC) concept; PSOC was firstly introduced by Sarason in 1974, and then expanded by McMillan and Chavis (1986) who identified its four main components (membership, influence, integration and fulfilment of needs, and shared emotional connection). PSOC has been found to lead to satisfaction and commitment and enhances people's involvement in their own community's activities and improves problem-focused coping behaviours when the community might need them. The loss of meeting places (which led to new traditions and to the lack of social and emotional support) and the temporary and permanent relocation has not only affected people's bond with their

environment, but also their own PSOC. As illustrated in Figure 4.1 and 4.2 in Chapter Four (p. 163 - 164), both the 2009 L'Aquila and the 2016 Amatrice earthquake have negatively affected all of the PSOC's components.

One of the elements that seemed to have been a major cause of disruption in both communities in the immediate aftermath was the misdistribution of the resources received by donors (e.g. clothes, working tools, food, etc.). At that point, both communities were already at strained as a consequence of the earthquakes (e.g. having moved into tents, having lost their houses, having lost jobs, etc.); somehow, the lack of an equal distribution of these resources brought even more disruption among survivors as many took more than they should have, showing an interest only in their own personal profit and forgetting to be part of a wider community made of people with different needs.

One more element that became central to most of the walking interviews and an integral part of both focus groups was the inability of local and national authorities to actually support survivors in the aftermath of the events. Participants felt that the authorities should have been keener to listen to residents' needs and to allow them to make suggestions in terms of relocation, distribution of resources, and reconstruction. Not having allowed residents to be an active part of the post-earthquake management has exacerbated their difficulties as they felt they could not take care of their own community and therefore disrupted their PSOC even more. The challenges faced by local and national authorities in the aftermath of both earthquakes is evident;

communities are made up of several individuals who might share values and traditions but might still be fundamentally different from each other and therefore have different needs. We cannot expect authorities to be fully able to manage a situation that is mostly unpredictable and out of the ordinary; however, we can expect that they will attempt to not exacerbate an already complicated situation by not taking into full consideration the wide needs of the affected community. For example, they should not aggravate the situation by randomly relocating people (which means separating family members, friends and neighbours), and unequally distributing resources without thinking about long-term consequences. All of these aspects, if prevented, could help survivors to maintain their PSOC to some extent.

#### **6.4 Maintaining community cohesion to mitigate the negative impact of community disruption in the aftermath of the earthquakes**

This research has discussed how after a first period of solidarity and mutual support where survivors attempted to help each other as they could; compromised psychological sense of community, disrupted bond with own environment, and lack of support from authorities might have contributed to L'Aquila and Amatrice's residents' struggles to access and provide social and emotional support to one another. As illustrated in the Community Disruption model on p. 206, authorities could have moderated the negative impact of the earthquakes by promoting community cohesion in the aftermath.

Community cohesion is defined as the ability of groups in a society to stay connected and to show solidarity (Kawachi & Berkman, 2014). Early post-disaster benevolence and community cohesion has been found to be therapeutic; in fact, communal sacrifices and concerns for each other may mitigate the negative impact of disasters on survivors (Fritz, 1961). High levels of received or perceived social support and community cohesion can counteract or even suppress the negative social and psychological impact of potentially traumatic events (Kaniasty, 2012). Survivors may lose their homes and with them their sense of safety, security, and trust; they may lose their jobs and with them their sense of status and belongings; and their self-esteem and sense of invulnerability may be hindered (Kaniasty & Norris, 1993). In order to cope with all of these losses, survivors need all the support they can get.

Unfortunately, the supportive and compassionate way of acting towards one another does not usually last very long. That sense of initial solidarity and altruism is slowly overpowered by a gradual reality check; a harsh reality characterised by grief, loss, and destruction (Kaniasty, 2012). A growing sense of deterioration of resources and therefore increased competition seems to slowly lead to even more distress among survivors and affect their ability to provide help. Natural disasters, such as floods and earthquakes, can impact on community dynamics and negatively affect community cohesion as individual interests become more salient and community residents tend to prioritise their own welfare (Chang, 2010). Also, due to the rising anxiety and concerns of being exploited (Van Vugt, 2001), community residents might become even more

reluctant to help each other. On several occasions, participants have explained how, after a first period characterised by mutual support, people started to appear more secluded into their own lives and focused on their own interests. Through their narratives, it became clear that a few elements could have been taken into account when trying to prevent community disruption and promote community cohesion and consequently resilience. Here an attempt is made at listing strategies that could have been considered and/or adopted by authorities to promote community cohesion and mutual social support. This attempt is mainly made on the basis of what was suggested or discussed by participants. Same strategies could potentially be considered when other natural disasters occur (e.g. tsunamis, hurricanes, volcano eruptions) as the key element is to bring community members together and promote mutual social support.

Firstly, local and national authorities might want to create temporary provisional spaces where community members could get together. It is clear that authorities' priorities in the immediate aftermath of an earthquake are to search and rescue, to provide sheltering and essential goods and to clear all of the main arteries; however, once this is completed and feels under control, authorities' next step should be to create provisional spaces where survivors would be able to get together and provide each other with support. These could simply be a few containers or tents or bungalows to be located close enough (depending on risk) to those areas that represented survivors' community life before the earthquake (e.g. town centres); a few safe spaces where people would feel able to share their feelings and thoughts with those who have been



through their same experience, but also a space where they could simply watch some television together, play with cards, read books, and so on. These places could somehow allow survivors to maintain some form of community life which will then lead to maintaining community cohesion and make its members more resilient and capable of dealing with the post-disaster challenges and stressors (e.g. losing a house, a job, etc.).

Secondly, in order to avoid relationships breakdown, authorities might want to think carefully about how to relocate survivors. It is clear that survivors will need to be relocated in safe areas and perhaps that means far from their homes and communities; however, this does not imply that they should be separated from their families and friends. Authorities should do their best to keep families together and where possible neighbours; the relocation of survivors should not rely on any algorithm, and entire villages should not be eliminated just because only 20 people lived there unless those people are happy not to return back to their houses. The problems associated with the random relocation of survivors to different places without respecting any form of criteria have been discussed on several occasions throughout this PhD (e.g. Chapter One, p. 54 - 55). If you keep family members, friends and neighbours together, they are more likely to provide support to one another, and benefit from it in the long-term from a psychological and social point of view. This could mean less burden on authorities to provide long-term psychological support to those who might experience mental illness as a consequence of the earthquakes (Xiong, et al., 2010).

Thirdly, in the aftermath of natural disasters, affected communities are highly likely to receive many donations such as essential goods (e.g. food, water, linens, clothes), working tools (e.g. farm equipment), domestic appliances (e.g. fridges, computers, washing machines), and even money (e.g. to invest into the reconstruction). If dealt with carefully, this can be positively perceived and experienced by those affected. However, when donations are not equally distributed among survivors, some might start to feel mistreated, left out, and not cared for. This is when people start to prioritise their own interests and dismiss those of others. Authorities therefore might want to be very careful when distributing donations as they might cause even more disruption and friction among members of the same community. Perhaps, some criteria should be established to help in deciding who is receiving what depending on their specific needs and circumstances.

Lastly, but not least, community members should get the opportunity to share their points of view with authorities in regard to their community's needs and in particular with what they believe should be prioritised during the reconstruction phase. A clear example of authorities not taking into consideration survivors' points of view was the construction of shopping centres. Both L'Aquila and Amatrice's community life was mainly experienced around the town centres where most shops, restaurants, bars and cafés used to be located. Most participants took me there or talked about the town centre during both the walking interviews and focus groups. Both town centres were the heart and soul of these communities and the introduction of shopping centres completely

changed their community dynamics. For L'Aquila, for example, the new generations of young adults have not had the chance to experience the town centre in the same way as perhaps their parents and grandparents have done; all they have known is the shopping centre. This has consequently hindered their attachment towards it and, long-term, the entire way in which L'Aquila's residents live their community lives. During the decision-making process, authorities should invite people to share their views on their plans for the reconstruction. An example of how important it would be to involve community members in the decision-making process was given by Gianluca (pseudonym) during one of the pilot walking interviews. Once the pilot walking interview with Gianluca had finished, he invited the interviewer to have lunch at one of the local restaurants that had reopened in the Food Area in Amatrice. Whilst there, he showed a video of a construction plan he and some other community members made for the reconstruction of the town centre; they basically wanted to recreate the town centre through the use of containers or bungalows which would then be placed at the same sites the bars, shops, restaurants were before in order to give people the idea that their town centre had been quickly rebuilt and therefore promote community cohesion. However, this plan was not considered by local authorities and shopping centres were built instead. Of course, not everyone will agree on one single plan, but the more people are involved, the better are the chances to rebuild on the basis of what the community needs and wants. Allowing community members to share their opinions could also give them an opportunity to feel empowered in dealing with the crisis.

It is expected that when community cohesion is even partly guaranteed in the aftermath of earthquakes, the affected community will benefit from it long-term. This might include not only better community and its members' quality of life and psychological well-being (as having received support when needed might have reduced the likelihood to develop mental health disorders such as PTSD, Depression, and Anxiety), but might also benefit their economy (as less people leave and therefore more shops, restaurants, etc. might be needed). This is not to say that authorities have an easy job, as this is not the case; events like this are extremely challenging and will differ from one another depending on which community is affected. However, this study suggested that if more attention is focused on survivors and their communities' needs, better outcomes might be achieved long-term.

An example of the benefits of maintaining and promoting community cohesion in the aftermath of such traumatic events was illustrated by Lorenza in Chapter Four (p. 154 - 157). Lorenza explained how having had the local mayor invested in keeping the community together (e.g. by relocating all the community members in one area and allowing them to share opinions and ideas about the reconstruction) allowed the whole community to support each other when needed the most, which boosted their community resilience (Burton, 2014) and prevented a disruption of their psychological sense of community (Sarason, 1974; McMillan & Chavis, 1986). Promoting community cohesion and allowing community members to share their opinions can help them to feel more in

control of their current circumstances and therefore less overwhelmed by their consequences (Van der Kolk, 2014).

Perhaps involving psychologists in the post-disaster decision-making process might be beneficial; they could help authorities to identify the long-term consequences of tearing an entire community apart by relocating survivors away from their family, friends and places significant to them, and by failing to provide provisional spaces where community members can gather and support one another. More attention to these aspects could prevent from the development of negative long-term consequences (e.g. depopulation, economic crisis, development of psychopathologies among survivors).

### **6.5 Future research**

This PhD introduced the use of a new qualitative interviewing technique never been used before at the site of a natural disaster: Walking interviews.

Walking interviews have proved to be very useful in the context of earthquakes as they enhance the quality of the data collected through improving the experience of both the interviewer and the interviewee (D'Errico & Hunt, 2019).

Qualitative research on the impact of earthquakes on survivors and their communities has mostly been conducted using a traditional interviewing technique (sitting in an office or a living room). Whilst this form of interview is still to be considered as a very useful qualitative interviewing technique, it might

not allow the interviewer to fully experience and understand participants' psychological sense of community and bond with their own surroundings. The ability to walk around participants' significant places and symbols of their life before and after the earthquake allows the development of a strong connection between the interviewer, interviewee, and environment (which then leads to the experience of a double hermeneutic); this might not necessarily happen while conducting the interview sitting around a table.

Future research could see the use of walking interviews in different contexts, including at the site of other natural disasters (e.g. tsunami, volcano eruptions, hurricanes, fires) and perhaps human-made disasters (e.g. terrorist attacks, war, genocide, ocean pollution, deforestation). By using walking interviews in similar contexts to the earthquakes analysed in this study, it might be possible to evaluate whether this methodology does truly allow researchers to collect more in-depth information regarding the phenomenon under study compared to the traditional sitting interview. It might help to establish whether, when events like these occur, this methodology could help to establish a more in-depth and comprehensive understanding on the phenomenon under study which could then inform policy makers and governments in creating more generalised prevention and post-disaster care plans to help the communities affected.

In addition, previous research has been conducted on the psychological and physical benefits of walking as a way to exercise (Crust, et al., 2011; Darker, et al., 2007); however, not much research can be found on the function of walking

as a means to heal from trauma. Future research in similar settings could look at understanding the importance of walking around the places relevant to the traumatic experience to help people heal from the trauma itself. Even though the focus of this study was the (traumatic) impact of the earthquakes on both a community level (e.g. community disruption and lack of social and emotional support) and individual level (e.g. loss of work opportunities and social spaces), the focus of the walking interviews was not to understand how the simple act of walking around significant places (e.g. main squares, restaurants, previous workplace) and narrating about the events could help people to process their traumatic experiences better and therefore potentially have a positive impact on participants' psychological well-being.

Future research using the walking interview methodology in similar contexts could evaluate the impact of walking for participants in terms of their psychological well-being. This could be achieved by having two groups, one where participants engage in the walking interview methodology, and one where they engage in the traditional sitting interview. Through the use of pre and post assessments (looking at changes in participants' psychological distress levels), but also qualitative information gathered by asking participants how they felt the combination of walking and narrating might have helped them to process their experiences and feel better, the impact of the two methodologies could then be compared.

Finally, further research could see the use of the walking interview methodology while using virtual applications (e.g. Virtual Reality) to help participants walk through the places that symbolise their traumatic experience. This might be especially crucial to access those participants who struggle to engage in the walking interview due to being physically impaired (e.g. older or disabled groups) and might struggle to walk around for long periods of time. It also offers the unique opportunity to re-experience the place before the event occurred which could give an opportunity to the researcher to see participants' life before through their eyes.

In terms of the focus groups carried out in this PhD research (Chapter 5, p. 169 - 203), if these were to be repeated, an attempt could be made to have groups of participants who had not already participated in the walking interview studies (this limitation is addressed in paragraph 6.6, p. 229). This might have allowed the researcher to gather new information regarding the phenomenon under study.

Future research using the focus group methodology with this population could also see participants from both towns (L'Aquila and Amatrice) coming together to explore the impact of the earthquakes on their communities. This might include discussions around the differences and similarities of their experiences of the support received in the immediate aftermath and long-term from local and national authorities, their perspective of the impact of the temporary and long-term relocation on their community life, and their perception of their communities' future opportunities. As it has already been shown throughout



this PhD research, the two communities differ on several aspects (e.g. population density and job and education opportunities); participants from both towns are at a different stage in their experience of the earthquakes (respectively L'Aquila 10 years later and Amatrice two years later), bringing them together could allow the researcher to gather more in-depth information on participants' own perspectives on these differences and similarities.

As mentioned in Chapter One (p. 17 – 62) and Five (p. 169 - 203), new ways of experiencing PSOC seem to be approaching. Virtual communities (e.g. Facebook, LinkedIn, Tik Tok, and Zoom) are slowly replacing place-based communities especially among younger generations. Research has shown how these virtual communities can to an extent recreate the same feeling of belonging of the place-based communities (Blanchard & Markus, 2002). Future research could perhaps look at how PSOC is perceived in the aftermath of natural disasters by those younger generations who are now able to communicate with one another through the use of these virtual communities, and therefore have immediate access to those friends and family members who would have otherwise been lost, compared to older generations who mainly relied on significant places to meet loved ones. Throughout the analysis, it became evident how survivors' relocation far from one another has led to hindered access to social and emotional support. Friends and family members did not see each other for months and even years sometimes; perhaps the use of these virtual platforms could become a new protective way to maintain community cohesion and prompt community resilience in the aftermath of such disruptive events.

Survivors could potentially find a space where to gather together through the use of these new platforms.

Future research could also consider developing a cross-cultural research where the same qualitative methodologies (walking interviews and focus groups) could be used to analyse the impact of earthquakes on other communities across the world. Understanding cultural influences on psychological and social phenomena is the key feature of cross-cultural research (Milfont & Klein, 2018); cross-cultural research has demonstrated that psychological and social phenomena are manifested differently across different communities worldwide, different cultural characteristics can lead to different behavioural and emotional manifestations and responses (Ratner & Hui, 2003). The aim could be to identify whether the same methodology could work with different countries from Italy, and whether the findings will show any similarities to the ones illustrated in this PhD.

Finally, future research could also consider developing a longitudinal study using the same subjects who participated to this PhD. Longitudinal research is research in which data is collected in two or more distinct time periods; the subjects or cases are the same for each timeframe, and the analysis involves some comparison of data between or among periods with the purpose of exploring differences and changes (Menard, 2002). This could give the researcher an opportunity to explore the changes that participants and their communities might encounter as time goes by. The current research was

conducted almost ten years after the 2009 L'Aquila earthquake and around two and half years after the 2016 Amatrice one. A longitudinal study could also evaluate potential similarities and differences among the two towns once Amatrice's community have experienced the post-earthquake for the same amount of time as L'Aquila had when this PhD research was conducted (e.g. ten years after the 2009 earthquake).

## **6.6 Limitations**

Although the current research provides useful insights into the challenges faced by communities in the aftermath of earthquakes, it is not without limitations.

One of the main limitations of this research was the sampling method adopted to recruit participants; convenience (or opportunity) sampling was used to recruit participants across all the studies. Convenience sampling is a type of non-random and nonprobability sampling method where individuals of the target population that meet specific criteria are invited to participate in the study; criteria include easy accessibility, availability at a given time, geographical proximity, and willingness to participate in the study (Dörney, 2007). Using convenience sampling might have meant that only one particular sub-group of individuals from the target population took part in this research, this limits the generalisability of these results across the wider population and to other groups of individuals. An attempt was made to recruit a diverse sample of individuals from different socioeconomic backgrounds, gender, and age group; however, by

no means can it be claimed that the sample chosen for this research is representative of the wider population.

This study did not include individuals who lost a close family member or friend (apart from one of the participants who participated to the focus group in Amatrice; however, the focus was on the community and therefore not much space was available for her to discuss the impact of such a loss). This was not considered an exclusion criteria, but simply those who lost a loved one were not identified as eligible or available participants by the two charities involved in the participants' recruitment. In the scenario in which individuals who lost a loved one as a consequence of the earthquakes did take part in the study, perspectives on and experiences of the events that followed the earthquakes might have been different and consequently impacted on this study's findings.

Also, not included in this study are individuals with physical disadvantages (e.g. in a wheelchair) as conducting a walking interview could have been challenging; however, again, having a physical disability was not considered an exclusion criteria. Some of the participants who participated in this study did struggle to walk for long periods of time and therefore adjustments were made to support them to participate to the study; for example, longer breaks from one location to another were taken (e.g. coffee breaks) and a few locations were reached by car.

In addition, as already mentioned in Chapter Five (p. 169 - 203), most of the participants who engaged in the focus groups study had already participated in the walking interview study. This was mainly related to both charities being relatively small and to both researcher and participants' time constraint. If having participated in the walking interviews study was to be made an exclusion criteria, the researcher and charities would have struggled to find available participants to engage in the study. Having only had participants who did not engage in the walking interviews study, and therefore not too familiar with this PhD research focus, might have allowed the researcher to gather new information regarding both the 2009 L'Aquila and 2016 Amatrice earthquakes.

Another limitation of this research is related to transcription and translation. In terms of transcription, due to timing it was not possible to obtain respondent validation; a technique that offers those who have been interviewed the opportunity to read their transcript and make changes if needed (Lincoln & Guba, 1985). In terms of translation, collecting qualitative data in one language and then presenting the results of the study in another means that the researcher/translator has an active role when exploring the potential for bringing the second language as close as possible in meaning to the original one (Keiichiro, 2001; We, 2006). In this study, all walking interviews and focus groups were conducted, recorded, and transcribed in Italian. The Italian transcripts were then translated into English by the author, and the translations (and whether they made sense and flow correctly) were then looked at by Dr Nigel Hunt (main supervisor), especially the quotes used in all chapters. An attempt

was made to check the translations' accuracy; the two walking interviews used for the pilot have been back translated first by the author and then checked for accuracy by a fellow PhD student (Italian) who studies engineering at The University of Nottingham. However, the use of a professional translator might have enhanced accuracy and helped to complete back translation of all walking interviews and focus groups' transcripts.

An attempt at achieving triangulation was also made. Triangulation denotes the use of multiple data sources or methods in qualitative research for a comprehensive understanding of the phenomenon under study (Patton, 1999). Triangulations help to test for validity through the conjunction of information from different sources. Denzin (1978) and Patton (1999) identified four different types of triangulation: method triangulation, investigator triangulation, theory triangulation, and data source triangulation.

Method triangulation refers to the methods used for data collection (Polit & Beck, 2012). In this study, an attempt was made to achieve method triangulation through the use of both in-depth interviews (walking interviews) and focus groups. However, by no means it can be claimed that this was fully achieved. Morse (2009) claimed that mixing qualitative methods can help researchers to develop different perspectives on the phenomenon under study that may otherwise have been overlooked. This has been partly achieved through the use of both methods as a more comprehensive understanding of the impact of the

community disruption after the earthquakes and of the difference between the two towns was achieved.

Investigator triangulation involves two or more researchers looking at the data collected to provide multiple observations, interpretations, and conclusions.

Again, an attempt was made here to achieve investigator triangulation as the author worked alongside her main supervisor when analysing the data collected.

However, the main supervisor was not involved in the coding phase of the analysis and mainly helped to generate different perspectives on the topics discussed by participants. Where possible, in case supervisors are not available, it might be appropriate to ask a colleague or a peer (e.g. fellow PhD student) for support with the coding process. However, this might not always be possible; as PhD students our resources and timing can be limited and having the opportunity to look at someone else's work can be challenging and very time-consuming.

Theory triangulation refers to the use of different theories to analyse and interpret data collected. In this study, different theories informed this PhD research such as the Psychological Sense of Community theory (Sarason, 1974; McMillan & Chavis, 1986) and the Place-attachment Theory (Altman & Low, 1992). Both theories have been integral parts of this research and have helped throughout not only the analysis process, but also during the other phases of the research process (e.g. setting up the interview schedule). They helped the researcher to gain a more in-depth understanding of the impact that earthquake

could have on survivors and their communities as their sense of safety, stability and trust in their own community and surrounding was hindered.

Data source triangulation involves the collection of data from different types of individuals (e.g. individuals, groups, family, and communities). Even if data collection was conducted through the use of both walking interviews and focus groups, there were not many differences between the individuals who participated in the study as they were all from L'Aquila or Amatrice and had experienced the earthquakes and their consequences.

The two focus groups provided an in-depth understanding of the events that followed the earthquakes and the way in which they were and are perceived by community members. Perhaps, more than two focus groups would have helped to gather more information and identify whether different groups of community members would have focused on different aspects of the community disruption. However, it became very difficult to conduct more than two focus groups as, in order to conduct these two, the researcher had to already face several challenges (one of which was weather conditions, such as participants not being able to participate due to the snow). Other challenges included available funding, timing, and participants' availability.



## 6.7 Reflexivity

As illustrated in the methodology chapter (p. 87 - 89), when it comes to qualitative research, reflexivity becomes a key component to achieve better quality research and increased validity (Mays & Pope, 2000). Having worked on my PhD research project for the last three years has taught me a lot, not only about the topic that I have chosen to study, but also on the impact that conducting such research has had on me as a researcher, and more widely as a person.

I have become more aware of the challenges that anyone can potentially face when conducting research, and how they can have a major impact on your psychological wellbeing. It was surprising to realise that not much research has been conducted on the impact of doing research on researchers considering how much pressure they (we) are under. Especially when we approach sensitive topics (such as mine) or have to respect tight deadlines, researchers might experience some form of psychological distress. In my case, I soon realised that each walking interview led to strong emotional responses in me which got me to think about the importance of self-care, supervision, and peer supervision. Listening to participants' life experiences whilst at their symbolic places was unexpectedly overwhelming; I have seen houses half standing where you could see people's belongings still in there (e.g. beds, wardrobes, teddy bears, and more), and town centres still surrounded by rubble even ten or two years after the earthquakes and therefore a constant reminder of what had happened years before the interview. While there, I could feel their pain and I often found

myself questioning what might be the impact of an earthquake in my own hometown and how my community and I might react to such events. I came to the conclusion that unless you experience it yourself, it is impossible to fully understand the sadness and the frustration experienced by those who have survived such traumatic events.

I also think being Italian and coming from a highly seismic area has definitely helped with the entire process. I believe participants felt more able to share their beliefs, worries, and emotional responses since I share similar traditions. I come from a town on the outskirts of Naples where people know one another. I felt I was almost immediately able to create a connection with them, particularly with the gatekeepers. They took me out for lunch and dinner and really made me feel at home which I think helped me to become more engrained in their community. We are normally a friendly population, and therefore I wouldn't expect participants or gatekeepers to treat a British researcher any differently; I simply think it made it easier for them to express their own feelings and talk about their own experiences while being able to use their own language. Sharing the same language and sense of culture meant that as a researcher I was more capable of stepping into their shoes and communicating more effectively.

Also, I became more aware of how crucial it should be for authorities and policy makers to include psychologists' expertise and perspectives when having to manage the post-disaster phase. Psychologists might be able to inform authorities of the potential consequences of different decisions made while

trying to help the community recover. Examples could include psychologists helping authorities to establish the best way to relocate survivors (e.g. keeping neighbourhoods or families together) and helping them to create spaces where the community can gather, but also communicate their needs and concerns to them if necessary.

Overall, I realised how we need to do more to promote mental health awareness across different contexts and how the role of research becomes crucial to promote this awareness. The document 'Towards Equality for Mental Health' (The Mental Health Policy Group, 2019) has illustrated how the disproportionately low levels of research funding for mental health is a major inequality that still needs to be addressed. Twenty-five times more per person is spent on cancer research compared to mental health research, respectively £228 for cancer per person and £9 for mental health per person. There is a clear need for a much greater focus on research to build evidence on current psychological interventions and developing new ones, but also to improve our knowledge regarding different psychological and social phenomena that could guide and inform government policies and prevention measures.

## **6.8 Conclusions**

To conclude, this thesis has analysed the impact of the 2009 L'Aquila and 2016 Amatrice earthquakes in Central Italy on their communities and survivors.

Earthquakes can lead to several negative consequences at the community level which then consequently negatively impact on each community member.

Negative consequences include disrupted psychological sense of community (PSOC; Sarason, 1974; p. 45) and bond and trust in their own environment (Place-Attachment Theory; Altman & Low, 1992; p. 49), depopulation, economic crisis, and breakdown in relationships.

Both earthquakes have led to severe community disruption which has negatively affected residents' access to social and emotional support, psychological sense of community, bond with their environment, and future expectations in relation to their own opportunities within their community and to the community's own future.

This was mainly caused by the loss of meeting places which mostly collapsed or were damaged during the earthquake (e.g. town centres, restaurants, cafes, local shops, churches, and schools) and by the temporary and permanent relocation of survivors (e.g. Progetto C.A.S.E). Some of these aspects were further aggravated and/or initiated by the decisions made by local and national authorities as residents' voices and needs were very rarely heard and respected (e.g. donations).

This research has demonstrated how post-earthquake management becomes crucial to promote community cohesion and therefore prevent the long-term negative impact of the earthquakes on the entire community. Listening to

survivors' needs and concerns is the key to promote community resilience; in most cases, it's not only the local authorities who become involved in the reconstruction and management of the post-earthquake phase. Therefore, it is important that not only local but also outside authorities liaise with the entire community to better understand what it is needed, what the community looked like before the events, and what they think the priorities should be.

Finally, this research has introduced the use of a new qualitative interviewing technique which has not been used before at the site of a natural disaster: walking interviews. Walking around with the interviewees not only enhanced the quality of data collected, but also allowed the interviewer to engage in the interview on a different level which cannot be achieved with a sedentary interview. This methodology might not benefit all forms of research, but there is certainly a place for it in a wide range of areas (floods, tsunamis, hurricanes, volcanic eruptions, wars, terrorist attacks, and other human-made disasters).

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## Appendix A. Ethics approval



**University of  
Nottingham**

UK | CHINA | MALAYSIA

Email: [FMHS-ResearchEthics@nottingham.ac.uk](mailto:FMHS-ResearchEthics@nottingham.ac.uk)

**Faculty of Medicine & Health Sciences  
Research Ethics Committee**

c/o Faculty PVC Office  
School of Medicine Education Centre  
B Floor, Medical School  
Queen's Medical Centre Campus  
Nottingham University Hospitals  
Nottingham, NG7 2UH

29 January 2018

**Danila D'Errico**  
PhD in Clinical Psychology  
c/o Dr Nigel Hunt  
Associate Professor  
Division of Psychiatry and Applied Psychology  
School of Medicine  
Yang Fujia Building, Jubilee Campus  
Nottingham, NG8 1BB

Dear Ms D'Errico

<b>Ethics Reference No:</b> 183-1712 – please always quote	
<b>Study Title:</b> Psychosocial and community consequences for earthquake survivors.	
<b>Chief Investigator/Supervisor:</b> Dr Nigel Hunt, Associate Professor, Division of Psychiatry and Applied Psychology, School of Medicine.	
<b>Lead Investigators/student:</b> Danila D'Errico, PhD in Clinical Psychology, Division of Psychiatry and Applied Psychology, School of Medicine.	
<b>Other Key Collaborators:</b> Dr Massimo Crescimbeni and Dr Frederica La Longa, Psychologists, National Institute for Geology and Volcanology, Rome, Italy	
<b>Location of Study:</b> Central Italy: towns of L'Aquila(Abruzzo), Amatrice and Accumuli (Lazio)	
<b>Type of Study:</b> Overseas, development of technique, mixed qualitative/quantitative	
<b>Proposed Start Date:</b> 18/02/2018	<b>Proposed End Date:</b> 17/02/2020 24mths
<b>No of Subjects:</b> 20-25+	<b>Age:</b> 18+years

Thank you for submitting the responses to the comments made by the Committee and the following revised documents were received:

- Consent forms for Interviews and Focus Groups version dated 25.01.2018
- Participant Information Sheets for Interviews and Focus Groups dated 28.01.2018

These have been reviewed and are satisfactory and the study has been given a favourable opinion.

A favourable opinion has been given on the understanding that:

1. All appropriate ethical and regulatory permissions are respected and followed in accordance with all local laws of the country in which the study is being conducted and those required by the host organisation/s involved.
2. The protocol agreed is followed and the Committee is informed of any changes using a notice of amendment form (please request a form).
3. The Chair is informed of any serious or unexpected event.
4. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

Yours sincerely

**Professor Ravi Mahajan**  
Chair, Faculty of Medicine & Health Sciences Research Ethics Committee

100143 Roma  
Via di Vigna Murata 605  
Tel: (0039) 06518601  
Fax: (0039) 0651860580  
URL: [www.ingv.it](http://www.ingv.it)  
email: [aoo.roma@pec.ingv.it](mailto:aoo.roma@pec.ingv.it)



**Istituto Nazionale di  
Geofisica e Vulcanologia**

## **CERTIFICATE OF PARTNERSHIP**

We undersigned, Massimo Crescimbene and Federica La Longa, psychologists at the Istituto Nazionale di Geofisica e Vulcanologia (INGV), certify our collaboration to the PhD Research Project in Clinical Psychology that will be conducted by Danila D'Errico, student at The University of Nottingham, Division of Psychiatry and Applied Psychology under the supervision of Dr. Nigel Hunt.

Rome, 12<sup>th</sup> October 2017

Dr. Massimo Crescimbene

A handwritten signature in black ink, appearing to read 'M. Crescimbene', written in a cursive style.

Dr. Federica La Longa

A handwritten signature in black ink, appearing to read 'F. La Longa', written in a cursive style.



Associazione 180amici L'Aquila - Onlus  
Via Saragat, 10 c/o Casa dell'Associazione  
67100 L'Aquila

tel. 3274181827 - 3661990081

iscrizione Registro Volontariato Regione Abruzzo n. DD/133-2010

Cod. fiscale 93047830661

IBAN: IT67S0538703601000000165363

[l.aquila180amici@gmail.com](mailto:l.aquila180amici@gmail.com)



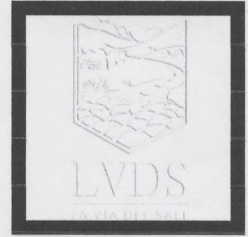
### Certificate of Partnership

I, undersigned Dr. A. Sirolli, certify my collaboration to the PhD Research Project in Clinical Psychology that will be conducted by Danila D' Errico, student at the University of Nottingham, Division of Psychiatry and Applied Psychology under the supervision of Dr. N. Hunt.

L'Aquila, 12th March 2018

Il Presidente  
dott. Alessandro Sirolli

Via Provinciale 25  
Cittareale (RI)  
02010



### CERTIFICATE OF PARTNERSHIP

I undersigned, Marco Margarita, vice-director of the charity association La Via Del Sale (LVDS), certify our collaboration to the PhD Research Project in Clinical Psychology that will be conducted by Danila D'Errico, student at The University of Nottingham, Division of Psychiatry and Applied Psychology under the supervision of Dr. Nigel Hunt.

26<sup>th</sup> February 2018

Marco Margarita

A handwritten signature in black ink that reads 'Marco Margarita' in a cursive style.

**Participant Information Sheet**

**Walking Interview**

Final version 1.0: 24.01.2018

**Title of Study:** Psychosocial and community consequences for earthquake survivors.

Study ID – 2009/16

**Name of Researcher(s):** Danila D’Errico PhD in Clinical Psychology – Nigel Hunt  
Associate Professor/Supervisor/Lead Investigator

We would like to invite you to take part in our research study. Before you decide we would like you to understand why the research is being done and what it would involve for you. One of our team will go through the information sheet with you and answer any questions you have. Talk to others about the study if you wish. Ask us if there is anything that is not clear.

**What is the purpose of the study?**

The research is based on the Central Italy earthquakes from 2009 to 2017. The aims of this study will be to examine survivors’ experience of the earthquake and its psychological and social consequences, what major changes participants have

experienced in their life post-earthquake; to what extent the loss of the community life is related to an increased lack of social and emotional support; and to what extent the loss of the community life is affecting survivors' recovery and life expectations.

### **Why have I been invited?**

You have been invited to take part to this study because you have experienced one of the earthquakes that struck Central Italy between 2009 and 2017 (specifically the areas of L'Aquila, Amatrice and Accumoli). We are inviting all those people who experienced these events and are willing to share their experience, feelings, opinions and emotions with us. Around 25 people will be interviewed.

### **Do I have to take part?**

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason.

### **What will happen to me if I take part?**

If you decide to take part to this research, you will need to attend a walking interview around your own town on a set date and time which will be decided together in order to make it more suitable for you. If you have any questions before, during and after the interview, the interviewer will answer all of them.

You can have a break if needed at any time and you can withdraw from the research whenever you want.

The interview will be audio recorded, with your consent, and transcribed.

Recordings and transcripts will be retained in the study archives, but personally identifiable information will be removed. Anonymous direct quotes may be used in the study reports.

### **Expenses and inconvenience allowance**

Participants will not be paid to participate in the study. However, coffee or tea will be offered during the break times.

### **What are the possible disadvantages and risks of taking part?**

There are not serious risks in taking part to this study; the main issue could be the emotional reaction that you might have after the interview. Sensitive topics will be discussed and there might be a chance to feel more sad or anxious. Support will be given if needed and a break will be provided if required.

### **What are the possible benefits of taking part?**

The information we get from your participation in this study may help understanding the real impact of a tragic event such as an earthquake on communities and think about interventions that could be put in place to help minimise the community disruption.



**Will my taking part in the study be kept confidential?**

All information which is collected about you during the course of the research will be kept on a password protected database and will be kept strictly confidential.

Any information about you which leaves the research unit will have your name and address removed so that you cannot be recognised from it.

Your personal data (address, telephone number) will be kept for up to two years after the end of the study so that we are able to contact you about the findings of the study *and possible follow-up studies* (unless you advise us that you do not wish to be contacted). All other data (research data) will be kept securely for 7 years.

After this time, your data will be disposed of securely. During this time, all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team will have access to your personal data.

We would also like to seek your consent so that the data may be stored and used in possible future research during and after 7 years– this is optional (please indicate you agree to this on the consent form).

What you will share during the interview will be kept confidential unless you reveal something of concern that may put yourself and/or someone else at risk.

The researcher may feel it necessary to report this to the appropriate persons.

**What will happen if I don't want to carry on with the study?**

Your participation is voluntary, and you are free to withdraw at any time without giving any reason. However, if you decided to withdraw more than 7 days after

the interview has taken place then the information collected so far cannot be erased and the information may still be used in the study analysis.

**What will happen to the results of the research study?**

The result will be kept safe at The University of Nottingham and will be part of a final dissertation project that will probably be completed in 2020 at the end of a PhD programme in Clinical Psychology. In the event in which the dissertation will be published, you will be informed of it and a copy of the article will be provided if you want one. All the data will remain confidential and you will not be identified in any report/publication.

**Who is organising and funding the research?**

This research is being organised and funded by the University of Nottingham.

**Who has reviewed the study?**

All research in the University of Nottingham is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by the Faculty of Medicine & Health Sciences (FMHS) Research Ethics Committee.

**What if there is a problem?**

If you have a concern about any aspect of this study, you should contact the Chief investigator e-mail: [nigel.hunt@nottingham.ac.uk](mailto:nigel.hunt@nottingham.ac.uk). The full contact details of the

research team are given at the end of this information sheet. If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator, c/o The University of Nottingham, Faculty PVC Office, B Floor, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH or via E-mail: [FMHS-ResearchEthics@nottingham.ac.uk](mailto:FMHS-ResearchEthics@nottingham.ac.uk)

**Further information and contact details**

**Danila D'Errico**

**PhD in Clinical Psychology**

**B14, Yang Fujia Building**

**Jubilee Campus**

**The University of Nottingham**

**NG7 2TU**

**[msxdd5@nottingham.ac.uk](mailto:msxdd5@nottingham.ac.uk)**

**Nigel Hunt**

**Associate Professor/Supervisor/Lead Investigator**

**B19, Yang Fujia Building**

**Jubilee Campus**

**The University of Nottingham**

**NG7 2TU**

**[nigel.hunt@nottingham.ac.uk](mailto:nigel.hunt@nottingham.ac.uk)**

**THANKS FOR YOUR PARTICIPATION!**

## Informazioni per I Partecipanti

### Walking Interview

Versione Finale 1.0: 24.01.2018

**Titolo del progetto:** Conseguenze psicosociali e comunitarie per i sopravvissuti al terremoto

**Nomi dei ricercatori:** Danila D’Errico PhD in Psicologia Clinical – Dr. Nigel Hunt  
Professore/Supervisor/Ricercatore Principale

Sei stato invitato a partecipare a questa ricerca. Prima di decidere se prenderne parte, e’ importante che tu capisca il motivo per cui quest’intervista viene condotta e che cosa comprende. Hai a disposizione tutto il tempo necessario per leggere questo opuscolo informazioni e discuterne con familiari e amici prima di decidere che fare. Puoi farci domande ogni qualvolta qualcosa non ti è del tutto chiaro. Se decidi di partecipare a questa ricerca, conserva questo opuscolo con te nel caso dovessi avere ulteriori domande o voglia avere ulteriori informazioni. Grazie per aver letto l’opuscolo.

#### **Qual è lo scopo della ricerca?**

La ricerca si basa sui terremoti del Centro Italia dal 2009 al 2017. Lo scopo è di raccogliere informazioni dettagliate sulle esperienze di coloro che sono

sopravvissuti agli eventi e quali conseguenze psicologiche e sociali hanno avuto. L'attenzione verrà riposta soprattutto alle esperienze post-terremoto: la distruzione della comunità e l'assenza di supporto emotivo e sociale connessa ad essa, la fase di ricovero e la qualità della vita post terremoto.

### **Perché sei stato scelto?**

Sei stato invitato perché hai vissuto uno dei terremoti che sono avvenuti nel Centro Italia tra il 2009 e il 2017 (in particolare le aree di L'Aquila, Amatrice e Accumoli). Sono invitati tutti coloro che hanno vissuto questi eventi e che hanno desiderio di condividere le loro esperienze, emozioni e opinioni a riguardo. Lo scopo della ricerca è di avere circa 25 partecipanti.

### **Devo prenderne parte?**

Dipende completamente dalla tua decisione. Se dovessi decidere di partecipare, questo opuscolo ti verrà lasciato nell'eventualità in cui tu possa avere ulteriori domande o voglia informazioni più dettagliate. Inoltre, se durante l'intervista dovessi voler concludere e ritirarti dalla ricerca, non ci saranno problemi a riguardo. Sarai libero di abbandonare in qualunque momento tu voglia.

### **Cosa devo fare?**

Se decidi di partecipare, dovrai presentarti nel luogo stabilito alla data e orario deciso insieme telefonicamente prima dell'intervista. Se dovessi avere delle domande prima, durante e dopo l'intervista, sei completamente libero di porle.

Una pausa è prevista laddove fosse necessario e, come già detto in precedenza, sarai libero di abbandonare l'intervista in qualunque momento tu voglia.

L'intervista sarà audio registrata e trascritta così come spiegato nel consenso. RegISTRAZIONI vocali e trascrizioni saranno conservate negli archivi universitari, ma tutte le informazioni personali verranno eliminate dalla documentazione per mantenere la tua privacy. Tutte le citazioni che verranno fatte verranno rese del tutto anonime.

### **Contributo alla partecipazione**

I partecipanti non verranno pagati per aver partecipato alla ricerca; però caffè o the verranno offerti durante gli break.

### **Ci sono dei rischi legati alla ricerca?**

Non ci sono rischi legati a questa ricerca, l'unico elemento che potrebbe essere considerato rischioso è che affrontando argomenti abbastanza sensibili potresti sentirti più triste o ansioso al termine dell'intervista. Laddove ciò accadesse, informa l'intervistatore e del supporto verrà fornito. Se ciò dovesse accadere durante l'intervista, non temere di chiedere una pausa.

### **Quali sono i benefici della mia partecipazione?**

Le informazioni che otterremo dalla tua partecipazione aiuteranno a fare più chiarezza relativamente all'impatto che un evento così drammatico come un terremoto può avere sulla comunità. Inoltre, potremmo discutere di eventuali interventi che potrebbe diminuire la lenta disgregazione social post-terremoto.

### **I miei dati verranno tenuti in modo confidenziale?**

Tutte le informazioni raccolte durante questa ricerca verranno mantenute in un database protetto e verranno conservate in via del tutto confidenziale. Qualsiasi informazione utilizzata al di fuori di questo database protetto, verrà resa anonima in modo che tu non possa essere riconosciuto. I tuoi dati personali verranno mantenuti per due anni in modo da poterti contattare laddove necessario e solo se tu avrai dato il consenso. Dopo questi 7 anni, i tuoi dati e l'intervista verranno eliminati in modo sicuro dal sistema. Durante questi 7 anni, tutte le informazioni a tuo riguardo verranno mantenute sicure e verranno utilizzate solo da coloro che hanno fatto parte del team di ricerca dall'inizio.

Tutto ciò che condividerai durante l'intervista verrà mantenuto in via confidenziale, a meno che non condividerai informazione che possano mettere a rischio te e/o altri. In questo caso, il ricercatore è tenuto ad informare terzi riguardo l'accaduto.

### **Cosa accadrà se decido di interrompere la mia partecipazione alla ricerca?**

La tua partecipazione è del tutto volontaria e sei libero di interrompere in qualunque momento e senza dover dare una spiegazione specifica. Solo nel caso in cui volessi rinunciare a 7 giorni dalla tua partecipazione all'intervista, i dati verranno mantenuti e analizzati ai fini della ricerca.

### **In che modo la mia intervista verrà utilizzata?**

I risultati, come già detto precedentemente, verranno conservati in un database protetto all'Università di Nottingham e verranno utilizzati per scrivere una tesi

finale nel 2020 alla conclusione di un PhD in Psicologia Clinica. Nel caso in cui questa tesi verrà pubblicata su dei giornali, lei verrà informato e laddove volesse una copia dell'articolo le verrà inviata una. I dati verranno comunque mantenuti sempre confidenziali.

### **Chi ha organizzato la ricerca**

La ricerca è stata organizzata e finanziata dall'Università di Nottingham.

### **Chi ha visionato la domanda di ricerca**

La domanda di ricerca è stata visionata dalla Commissione Etica della Scuola di Medicina dell'Università di Nottingham in modo da proteggere i tuoi interessi.

### **Se qualcosa non dovesse andare come previsto?**

Laddove qualcosa non dovesse andare come previsto potrai sempre approcciare il principale investigatore Dr. Nigel Hunt oppure la Commissione Etica all'Università di Nottingham mandando un'e-mail a Mrs. Louise Sabir, Division of Therapeutics and Molecular Medicine, D Floor, South Block, Queen's Medical Centre a Nottingham - [louise.sabir@nottingham.ac.uk](mailto:louise.sabir@nottingham.ac.uk) (Codice Postale NG7 2UH) o contattarla telefonicamente al 0044 1158231063.

### **Per ulteriori informazioni contattare**

**Danila D'Errico**

**PhD in Psicologia Clinica**

**B14, Yang Fujia Building**



**Jubilee Campus**

**The University of Nottingham**

**NG7 2TU**

**[msxdd5@nottingham.ac.uk](mailto:msxdd5@nottingham.ac.uk)**

**Nigel Hunt**

**Professore/Supervisor/Principale Investigatore**

**B19, Yang Fujia Building**

**Jubilee Campus**

**The University of Nottingham**

**NG7 2TU**

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**GRAZIE PER AVER PARTECIPATO!**

## Participant Information Sheet

### Focus Group

Final version 1.0: 24.01.2018

**Title of Study:** Psychosocial and community consequences for earthquake survivors.

Study ID – 2009/16

**Name of Researcher(s):** Danila D’Errico PhD in Clinical Psychology – Nigel Hunt  
Associate Professor/Supervisor/Lead Investigator

We would like to invite you to take part in our research study. Before you decide we would like you to understand why the research is being done and what it would involve for you. One of our team will go through the information sheet with you and answer any questions you have. Talk to others about the study if you wish. Ask us if there is anything that is not clear.

#### **What is the purpose of the study?**

The research is based on the Central Italy earthquakes from 2009 to 2017. The aims of this study will be to examine survivors’ experience of the earthquake and its psychological and social consequences, what major changes participants have experienced in their life post-earthquake; to what extent the loss of the

community life is related to an increased lack of social and emotional support; and to what extent the loss of the community life is affecting survivors' recovery and life expectations.

### **Why have I been invited?**

You have been invited to take part to this study because you have experienced one of the earthquakes that struck Central Italy between 2009 and 2017 (specifically the areas of L'Aquila, Amatrice and Accumoli). We are inviting all those people who experienced these events and are willing to share their experience, feelings, opinions and emotions with us. Around 25 people will be interviewed.

### **Do I have to take part?**

It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part, you are still free to withdraw at any time and without giving a reason.

### **What will happen to me if I take part?**

If you decide to take part to this research, you will need to attend a focus group on a set date, time and place which will be decided together in order to make it more suitable for you. If you have any questions before, during and after the focus group, the interviewer will answer all of them. You can have a break if needed at any time and you can withdraw from the research whenever you want.

The focus group will be audio recorded, with your consent, and transcribed.

Recordings and transcripts will be retained in the study archives, but personally identifiable information will be removed. Anonymous direct quotes may be used in the study reports.

### **Expenses and inconvenience allowance**

Participants will not be paid to participate in the study. However, coffee or tea will be offered during the break times.

### **What are the possible disadvantages and risks of taking part?**

There are not serious risks in taking part to this study; the main issue could be the emotional reaction that you might have after the focus group. Sensitive topics will be discussed and there might be a chance to feel more sad or anxious. Support will be given if needed and a break will be provided if required.

### **What are the possible benefits of taking part?**

The information we get from your participation in this study may help understanding the real impact of a tragic event such as an earthquake on communities and think about interventions that could be put in place to help minimise the community disruption.

### **Will my taking part in the study be kept confidential?**

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Any information about you which leaves the research unit will have your name and address removed so that you cannot be recognised from it.

Your personal data (address, telephone number) will be kept for up to two years after the end of the study so that we are able to contact you about the findings of the study *and possible follow-up studies* (unless you advise us that you do not wish to be contacted). All other data (research data) will be kept securely for 7 years. After this time, your data will be disposed of securely. During this time, all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team will have access to your personal data.

We would also like to seek your consent so that the data may be stored and used in possible future research during and after 7 years– this is optional (please indicate you agree to this on the consent form).

What you will share during the interview will be kept confidential unless you reveal something of concern that may put yourself and/or someone else at risk. The researcher may feel it necessary to report this to the appropriate persons.

**What will happen if I don't want to carry on with the study?**

Your participation is voluntary, and you are free to withdraw at any time without giving any reason. However, if you decided to withdraw more than 7 days after the interview has taken place then the information collected so far cannot be erased and the information may still be used in the study analysis.

**What will happen to the results of the research study?**

The result will be kept safe at The University of Nottingham and will be part of a final dissertation project that will probably be completed in 2020 at the end of a PhD programme in Clinical Psychology. In the event in which the dissertation will be published, you will be informed of it and a copy of the article will be provided if you want one. All the data will remain confidential and you will not be identified in any report/publication.

**Who is organising and funding the research?**

This research is being organised and funded by the University of Nottingham.

**Who has reviewed the study?**

All research in the University of Nottingham is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by the Faculty of Medicine & Health Sciences (FMHS) Research Ethics Committee.

**What if there is a problem?**

If you have a concern about any aspect of this study, you should contact the Chief investigator e-mail: [nigel.hunt@nottingham.ac.uk](mailto:nigel.hunt@nottingham.ac.uk). The full contact details of the research team are given at the end of this information sheet. If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator, c/o The University of Nottingham, Faculty PVC Office, B Floor, Medical School, Queen's Medical Centre Campus,

Nottingham University Hospitals, Nottingham, NG7 2UH or via E-mail: [FMHS-  
ResearchEthics@nottingham.ac.uk](mailto:FMHS-ResearchEthics@nottingham.ac.uk)

**Further information and contact details**

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**Associate Professor/Supervisor/Lead Investigator**

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**Jubilee Campus**

**The University of Nottingham**

**NG7 2TU**

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**THANKS FOR YOUR PARTICIPATION!**

## Informazioni per I Partecipanti

### Intervista di gruppo

Versione Finale 1.0: 24.01.2018

**Titolo del progetto:** Conseguenze psicosociali e comunitarie per I sopravvissuti al terremoto

**Nomi dei ricercatori:** Danila D’Errico PhD in Psicologia Clinical – Dr. Nigel Hunt  
Professore/Supervisor/Ricercatore Principale

Sei stato invitato a partecipare a questa ricerca. Prima di decidere se prenderne parte, e’ importante che tu capisca il motivo per cui quest’intervista viene condotta e che cosa comprende. Hai a disposizione tutto il tempo necessario per leggere questo opuscolo informazioni e discuterne con familiari e amici prima di decidere che fare. Puoi farci domande ogni qualvolta qualcosa non ti è del tutto chiaro. Se decidi di partecipare a questa ricerca, conserva questo opuscolo con te nel caso dovessi avere ulteriori domande o voglia avere ulteriori informazioni. Grazie per aver letto l’opuscolo.

#### **Qual è lo scopo della ricerca?**

La ricerca si basa sui terremoti del Centro Italia dal 2009 al 2017. Lo scopo è di raccogliere informazioni dettagliate sulle esperienze di coloro che sono



sopravvissuti agli eventi e quali conseguenze psicologiche e sociali hanno avuto. L'attenzione verrà riposta soprattutto alle esperienze post-terremoto: la distruzione della comunità e l'assenza di supporto emotivo e sociale connessa ad essa, la fase di ricovero e la qualità della vita post terremoto.

### **Perché sei stato scelto?**

Sei stato invitato perché hai vissuto uno dei terremoti che sono avvenuti nel Centro Italia tra il 2009 e il 2017 (in particolare le aree di L'Aquila, Amatrice e Accumoli). Sono invitati tutti coloro che hanno vissuto questi eventi e che hanno desiderio di condividere le loro esperienze, emozioni e opinioni a riguardo. Lo scopo della ricerca è di avere circa 25 partecipanti.

### **Devo prenderne parte?**

Dipende completamente dalla tua decisione. Se dovessi decidere di partecipare, questo opuscolo ti verrà lasciato nell'eventualità in cui tu possa avere ulteriori domande o voglia informazioni più dettagliate. Inoltre, se durante l'intervista di gruppo dovessi voler concludere e ritirarti dalla ricerca, non ci saranno problemi a riguardo. Sarai libero di abbandonare in qualunque momento tu voglia.

### **Cosa devo fare?**

Se decidi di partecipare, dovrai presentarti nel luogo stabilito alla data e orario deciso insieme telefonicamente prima dell'intervista di gruppo. Se dovessi avere delle domande prima, durante e dopo l'intervista, sei completamente libero di porle. Una pausa è prevista laddove fosse necessario e, come già detto in

precedenza, sarai libero di abbandonare l'intervista in qualunque momento tu voglia.

L'intervista di gruppo sarà audio registrata e trascritta così come spiegato nel consenso. RegISTRAZIONI vocali e trascrizioni saranno conservate negli archivi universitari, ma tutte le informazioni personali verranno eliminate dalla documentazione per mantenere la tua privacy. Tutte le citazioni che verranno fatte verranno rese del tutto anonime

### **Contributo alla partecipazione**

I partecipanti non verranno pagati per aver partecipato alla ricerca; però caffè o the verranno offerti durante le pause.

### **Ci sono dei rischi legati alla ricerca?**

Non ci sono rischi legati a questa ricerca, l'unico elemento che potrebbe essere considerato rischioso è che affrontando argomenti abbastanza sensibili potresti sentirti più triste o ansioso al termine dell'intervista di gruppo. Laddove ciò accadesse, informa l'intervistatore e del supporto verrà fornito. Se ciò dovesse accadere durante l'intervista, non temere di chiedere una pausa.

### **Quali sono i benefici della mia partecipazione?**

Le informazioni che otterremo dalla tua partecipazioni aiuteranno a fare più chiarezza relativamente all'impatto che un evento così drammatico come un terremoto può avere sulla comunità. Inoltre, potremmo discutere di eventuali interventi che potrebbe diminuire la lenta disgregazione sociale post-terremoto.

**I miei dati verranno tenuti in modo confidenziale?**

Tutte le informazioni raccolte durante questa ricerca verranno mantenute in un database protetto e verranno conservate in via del tutto confidenziale. Qualsiasi informazione utilizzata al di fuori di questo database protetto, verrà resa anonima in modo che tu non possa essere riconosciuto. I tuoi dati personali verranno mantenuti per due anni in modo da poterti contattare laddove necessario e solo se tu avrai dato il consenso. Dopo questi 7 anni, i tuoi dati e l'intervista verranno eliminati in modo sicuro dal sistema. Durante questi 7 anni, tutte le informazioni a tuo riguardo verranno mantenute sicure e verranno utilizzate solo da coloro che hanno fatto parte del team di ricerca dall'inizio.

Tutto ciò che condividerai durante l'intervista verrà mantenuto in via confidenziale, a meno che non condividerai informazione che possano mettere a rischio te e/o altri. In questo caso, il ricercatore è tenuto ad informare terzi riguardo l'accaduto.

**Cosa accadrà se decido di interrompere la mia partecipazione alla ricerca?**

La tua partecipazione è del tutto volontaria e sei libero di interrompere in qualunque momento e senza dover dare una spiegazione specifica. Solo nel caso in cui volessi rinunciare a 7 giorni dalla tua partecipazione all'intervista di gruppo, i dati verranno mantenuti e analizzati ai fini della ricerca.

**In che modo la mia intervista verrà utilizzata?**

I risultati, come già detto precedentemente, verranno conservati in un database protetto all'Università di Nottingham e verranno utilizzati per scrivere una tesi finale nel 2020 alla conclusione di un PhD in Psicologia Clinica. Nel caso in cui questa tesi verrà pubblicata su dei giornali, lei verrà informato e laddove volesse una copia dell'articolo le verrà inviata una. I dati verranno comunque mantenuti sempre confidenziali.

**Chi ha organizzato la ricerca**

La ricerca è stata organizzata e finanziata dall'Università di Nottingham.

**Chi ha visionato la domanda di ricerca**

La domanda di ricerca è stata visionata dalla Commissione Etica della Scuola di Medicina dell'Università di Nottingham in modo da proteggere i tuoi interessi.

**Se qualcosa non dovesse andare come previsto?**

Laddove qualcosa non dovesse andare come previsto potrai sempre approcciare il principale investigatore Dr. Nigel Hunt oppure la Commissione Etica all'Università di Nottingham mandando un'e-mail a Mrs. Louise Sabir, Division of Therapeutics and Molecular Medicine, D Floor, South Block, Queen's Medical Centre a Nottingham - [louise.sabir@nottingham.ac.uk](mailto:louise.sabir@nottingham.ac.uk) (Codice Postale NG7 2UH) o contattarla telefonicamente al 0044 1158231063.

**Per ulteriori informazioni contattare**

**Danila D'Errico**

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**Jubilee Campus**

**The University of Nottingham**

**NG7 2TU**

**[msxdd5@nottingham.ac.uk](mailto:msxdd5@nottingham.ac.uk)**

**Nigel Hunt**

**Professore/Supervisor/Principale Investigatore**

**B19, Yang Fujia Building**

**Jubilee Campus**

**The University of Nottingham**

**NG7 2TU**

**[nigel.hunt@nottingham.ac.uk](mailto:nigel.hunt@nottingham.ac.uk)**

**GRAZIE PER AVER PARTECIPATO!**

## Participants Consent Form

### Walking Interviews

Final version 1.0: 25.01.2018

**Title of Study:** Psychosocial and community consequences for earthquake survivors.

**REC ref:** 183 - 1712

**Name of Researchers:** Danila D'Errico PhD in Clinical Psychology – Nigel Hunt  
Associate Professor/Supervisor/Lead Investigator

**Name of Participant:**

**Please tick initial box**

1. I confirm that I have read and understand the information sheet for the above study which is attached and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.
3. I understand that should I withdraw, more than 7 days after the interview has taken place then the information collected so far cannot be erased and that this information may still be used in the study analysis.
4. I understand that relevant sections of my data collected in the study may be looked at by the research group and by other responsible individuals for monitoring and audit purposes. I give permission for these individuals to have access to these records and to collect, store, analyse and publish information obtained from my participation in this study. I understand that my personal details will be kept confidential.
5. I understand that the Interview will be audio recorded using a digital device and that anonymous direct quotes from the interview may be used in the study reports.
6. I understand that the interview will be audio recorded for analysis after the session.
7. I understand that what I say during the interview will be kept confidential unless I reveal something of concern that may put myself or someone else at any risk. The researcher may feel it necessary to report this to the appropriate persons.
8. I understand that information about me recorded during the study will be made anonymous before it is stored. It will be uploaded into a secure database on a computer kept in a secure place. Data will be kept for 7 years after the study has ended and then destroyed.
9. **Optional:** I agree that the information collected about me will be used to support other research in the future and may be shared anonymously with other researchers.

10. I agree to take part in the above study.

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name of Person taking consent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature



## Participants Consent Form

### Walking Interviews

Final version 1.0: 25.01.2018

**Titolo del progetto: Conseguenze psicosociali e comunitarie per i sopravvissuti al terremoto**

**Numero di riferimento:** 183 - 1712

**Nomi dei ricercatori:** Danila D'Errico PhD in Psicologia Clinica - Dr. Nigel Hunt

Professore/Supervisor/Ricercatore principale

**Nome del Partecipante:**

**Per favore seleziona la casella**

1. Confermo di aver letto e compreso le informazioni contenute nel document "Informazioni per i partecipanti" e ho avuto l'opportunita' di chiedere chiarimenti.
2. Sono consapevole che la mia partecipazione al progetto e' del tutto volontaria e ho l'opportunita' di fermare l'intervista in qualsiasi momento senza dover dare spiegazioni.
3. Comprendo che se volessi ritirare la mia partecipazione al progetto 7 giorni dopo aver partecipato all'intervista, cio' non sara' piu' possibile e le informazioni raccolte attraverso l'intervista verranno utilizzate ai fini della ricerca.
4. Comprendo che le informazioni raccolte tramite la mia intervista saranno analizzate dal ricercatore stesso e coloro che lo supervisionano. Autorizzo quest'ultimi ad avere accesso alle informazioni raccolte. Inoltre autorizzo la pubblicazione del material raccolto e comprendo che I miei dati verranno mantenuti in via confidenziale.
5. Comprendo che l'intervista verra' audio registrata utilizzando un registratore digitale e che le informazioni da me condivise rimarranno del tutto anonime.
6. Comprendo che le interviste sono audio registrate ai fini della ricerca/
7. Comprendo che tutto cio' che condividero' durante l'intervista verra' mantenuto in via confidenziale a meno che non condividero' informazioni che possano mettere me e/o altri a rischio. In tal caso, il ricercatore sara' tenuto a condividere l'informazione con terzi.
8. Comprendo che il contenuto dell'intervista verra' conservato in maniera del tutto anonima per sette anni dopo il termine del progetto. Al termine dei sette anni, le informazioni verranno cancellate.
9. **Facoltativo:** Autorizzo l'utilizzo delle informazioni raccolte attraverso la mia intervista per sostenere alter ricerche in futuro. Comprendo che i miei dati personali verranno mantenuti anonimi.



10. Autorizzo la mia partecipazione volontaria a questo progetto

\_\_\_\_\_  
Nome del Partecipante

\_\_\_\_\_  
Data

\_\_\_\_\_  
Firma

\_\_\_\_\_  
Nome di colui che accetta il Consenso

\_\_\_\_\_  
Data

\_\_\_\_\_  
Firma



## Participants Consent Form

### Focus Group

Final version 1.0: 25.01.2018

**Title of Study:** Psychosocial and community consequences for earthquake survivors.

**REC ref:** 183 - 1712

**Name of Researchers:** Danila D'Errico PhD in Clinical Psychology – Nigel Hunt  
Associate Professor/Supervisor/Lead Investigator

**Name of Participant:**

**Please tick initial box**

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7. I understand that what I say during the focus group will be kept confidential unless I reveal something of concern that may put myself or someone else at any risk. The researcher may feel it necessary to report this to the appropriate persons.
8. I understand that information about me recorded during the study will be made anonymous before it is stored. It will be uploaded into a secure database on a computer kept in a secure place. Data will be kept for 7 years after the study has ended and then destroyed.
9. **Optional:** I agree that the information collected about me will be used to support other research in the future and may be shared anonymously with other researchers.

10. I agree to take part in the above study.

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name of Person taking consent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature



## Participants Consent Form

### Intervista di Gruppo

Final version 1.0: 25.01.2018

**Titolo del progetto: Conseguenze psicosociali e comunitarie per i sopravvissuti al terremoto**

**Numero di riferimento:** 183 - 1712

**Nomi dei ricercatori:** Danila D'Errico PhD in Psicologia Clinica - Dr. Nigel Hunt  
Professore/Supervisor/Ricercatore principale

**Per favore seleziona la casella**

**Nome del Partecipante:**

1. Confermo di aver letto e compreso le informazioni contenute nel documento "Informazioni per i partecipanti" e ho avuto l'opportunità di chiedere chiarimenti.
2. Sono consapevole che la mia partecipazione al progetto e' del tutto volontaria e ho l'opportunità di fermare l'intervista di gruppo in qualsiasi momento senza dover dare spiegazioni.
3. Comprendo che se volessi ritirare la mia partecipazione al progetto 7 giorni dopo aver partecipato all'intervista di gruppo, cio' non sara' piu' possibile e le informazioni raccolte attraverso quest'ultima verranno utilizzate ai fini della ricerca.
4. Comprendo che le informazioni raccolte tramite la mia intervista di gruppo saranno analizzate dal ricercatore stesso e coloro che lo supervisionano. Autorizzo quest'ultimi ad avere accesso alle informazioni raccolte. Inoltre autorizzo la pubblicazione del material raccolto e comprendo che I miei dati verranno mantenuti in via confidenziale.
5. Comprendo che l'intervista di gruppo verra' audio registrata utilizzando un registratore digitale e che le informazioni da me condivise rimarranno del tutto anonime.
6. Comprendo che le interviste di gruppo sono audio registrate ai fini della ricerca/
7. Comprendo che tutto cio' che condividero' durante l'intervista di gruppo verra' mantenuto in via confidenziale a meno che non condividero' informazioni che possano mettere me e/o altri a rischio. In tal caso, il ricercatore sara' tenuto a condividere l'informazione con terzi.
8. Comprendo che il contenuto dell'intervista di gruppo verra' conservato in maniera del tutto anonima per sette anni dopo il termine del progetto. Al termine dei sette anni, le informazioni verranno cancellate.
9. **Facoltativo:** Autorizzo l'utilizzo delle informazioni raccolte attraverso la mia intervista di gruppo per sostenere alter ricerche in futuro. Comprendo che i miei dati personali verranno mantenuti anonimi.

10. Autorizzo la mia partecipazione volontaria a questo progetto



\_\_\_\_\_  
Nome del Partecipante

\_\_\_\_\_  
Data

\_\_\_\_\_  
Firma

\_\_\_\_\_  
Nome di colui che accetta il Consenso

\_\_\_\_\_  
Data

\_\_\_\_\_  
Firma

## **Appendix C. Interview Schedules**

### **Walking Interview**

#### **Interview Schedule**

The entire interview will be conducted while walking around participants' hometown. A meeting point will be pre-arranged through a phone call. A map will be provided for the participant to choose which places he/she would like to walk through; this will help decide whether breaks or means of transport will be needed. The goal is to organise the stops by following the interview schedule. For example, one of the first stops could be the place where they were at the time of the earthquake.

#### ***About yourself***

(While walking towards our first stop)

This is a brief introduction from both parties which will help in the ice-breaking process.

Tell me about yourself. How old are you? Where were you born? Where do you live now? What do you do for a living?

#### ***Let's talk about the earthquake***

(At the place where they were at the time of the event)

Tell me about the day of the earthquake. I would like you to go back on that day and remember what you were doing or who you were with but also how you felt, the emotions that were prevalent at that time.

### ***The aftermath: Personal and Community Life***

(While walking towards and at the other places chosen by the participant including their usual meeting points and everyday places)

Tell me about what has changed in your life after the earthquake. Did you lose a loved one or your house or your job? What does this loss or losses mean to you?

Tell me about your community. In what ways yours, and in general, social relationships have changed since the event? Do you still see the same people you used to meet before? What changes your community has experienced since the event? Where did you use to go out to eat and drink? Where did you meet your friends? Are these places still open? I would like to see these places to fully understand the difference between what it was and what it is now, would you show them to me and describe what you would usually do when meeting friends or during your everyday routine?

Regarding the pre-earthquake, do you think you and your community should have been somehow prepared to the risks of an earthquake in your area? Do you think it would have helped? Would you have made different decisions before the earthquake?

### ***Future expectations***

You told me about your life before and after the earthquake. Tell me about your future. What are your life expectations? Do you have any goals you would like to achieve?

Talking about the community again. What do you think the future of this community will be? Are you positive or negative about it? Would you like to see

some kind of interventions or support services put in place for yourself and the community?

***Conclusion***

What do you think of this kind of interview? Walking through your own hometown and talking about your experience and life, any thoughts or opinions you would like to share?

**Thanks for having participated to this interview. I really appreciate your kind help.**



## Walking Interview

### **Intervista**

L'intervista verrà completamente svolta camminando per le strade della città del partecipante. Un luogo d'incontro verrà stabilito in anticipo tramite una telefonata. Una mappa della città verrà consegnata al partecipante il quale sceglierà i luoghi da visitare durante l'intervista; ciò aiuterà a stabilire la necessità di organizzare delle pause o se eventualmente fossero necessari mezzi di trasporto. L'obiettivo è quello di organizzare l'ordine di arrivo ai vari luoghi stabiliti seguendo il flusso dell'intervista. Per esempio, uno dei primi luoghi da visitare potrebbe essere il luogo dove il partecipante era durante il terremoto.

#### ***Parliamo di te***

(camminando verso il primo luogo stabilito)

Questa prima fase rappresenterà una breve introduzione da parte dell'intervistatore e del partecipante; l'obiettivo è di mettere il partecipante a suo agio.

Parlami di te. Quanti anni hai? Dove sei nato? Dove vivi ora? Cosa fai nella vita?

#### ***Parliamo del terremoto***

(una volta giunti al luogo dove il partecipante era durante il terremoto)

Dimmi del terremoto. Vorrei che provassi a tornare indietro nel tempo e cercare di ricordarti cosa stessi facendo e con chi eri. Vorrei sapere come ti sei sentito, quali emozioni sono state le più forti?

### ***Il dopo terremoto: fattori personali e comunità***

(camminando verso gli altri luoghi stabiliti dal partecipante includendo anche i luoghi di incontro con gli amici e quelli della vita quotidiana)

Parlami di come il terremoto ha cambiato la tua vita. Hai perso una persona cara, la casa, il lavoro? Cosa questa perdita o queste perdite hanno comportato nella tua vita?

Parlami della tua comunità. In che modo i tuoi rapporti interpersonali e in generale quelli della tua comunità sono cambiati dopo il terremoto? Vedi ancora le stesse persone che incontravi prima del terremoto? Quali cambiamenti credi la tua comunità ha dovuto sostenere? Dove eri solito andare a mangiare e bere con amici? Dove incontravi i tuoi amici? Questi posti hanno chiuso dopo il terremoto? Vorrei poter vedere questi luoghi che sono o erano parte della tua vita prima del terremoto così da capire a pieno le differenze tra prima e dopo. Saresti disposto a mostrarmeli e descrivermi cosa eri solito fare con gli amici o durante la tua quotidianità'?

Per quanto riguarda il pre-terremoto, pensi che tu e la tua comunità potreste aver beneficiato di qualche forma di educazione al rischio del terremoto nella vostra zona? Pensi avrebbe potuto aiutare? Avresti preso decisioni diverse?

### ***Prospettive per il futuro***

Fino ad adesso abbiamo parlato della tua vita prima e dopo del terremoto. Parlami del tuo futuro. Come lo vedi? Hai degli obiettivi che vorresti raggiungere?

Relativamente alla tua comunità, cosa ne pensi riguardo al suo futuro? Lo vedi da un punto di vista negativo o positivo? Vorresti che qualche forma di intervento o supporto venisse creata per te e la tua comunità?

***Per concludere***

Cosa ne pensi di questo tipo di intervista. Camminare tra le strade della tua città e al tempo stesso parlare della tua esperienza e della tua vita, qual è la tua opinione a riguardo? Cosa ne pensi?

**Grazie per aver partecipato. Grazie per il suo gentile aiuto.**

## **Focus Group**

### **Interview Schedule**

The focus group will be conducted at the centre where participants were recruited from (e.g. schools or charity associations), other community centres or other sites might be used if they are willing to provide a room for interviews free of charge (and have relevant insurance policies in place). The aim of the focus group will be to interview groups of friends in order to better understand the changes in survivors' social life and more in general changes in the community life.

### ***Introduction***

Brief introduction from all parties (participants and moderator) which will aim to create a comfortable atmosphere for everyone.

In this stage, the topic of the research will be outlined, and the Information Sheet provided. Participants will be explained the content of the Information Sheet with specific focus on confidentiality and being tape recorded. Participants will then be asked to sign the Consent Form if they agree to stay and continue with the focus group.

### ***Group Rules***

There are no wrong answers but rather differing points of view. Please feel free to share your point of view even if it differs from what others have said. Keep in mind that we're just as interested in negative comments as positive comments, and at times the negative comments are the most helpful.

You do not always have to agree with others, but you should always listen respectfully as others share their views. Everyone is invited to switch off their phones or to put them on silent.

### ***Let's begin***

We are here to talk about the earthquake and how this had an impact on your social life and more widely about the impact on the community life.

### ***Their own Social Life***

How do you think your social life has changed after the earthquake? Thinking back, how was your social life before the event? What aspects of your social life have been mainly affected by the earthquake? As friends, are the places you used to meet still open? Do you still have places where to spend time together and support each other? How often do you see each other? Has it changed compared to before the earthquake? How does this make you feel?

### ***Community Life***

How do you think the community life has changed after the event? How was it before? What aspects do you think have been mainly affected by the earthquake? Is there a general opinion about it or many different ones? Do you reckon the community should have somehow be prepared to the risk of an earthquake in your area?

***Future***

Do you think L'Aquila/Amatrice/Accumoli have a future? What would you like to see happening for your town? Any specific interventions? Any hope and beliefs? Is the sense of community still alive and do you think this will help in the reconstruction process?

**Thank you for having been part of this project. I really appreciate it.**

## Intervista di Gruppo

L'intervista di gruppo verrà svolta al centro dove i partecipanti sono stati selezionati (per esempio scuole, associazioni volontarie, ecc.), altri centri o altri luoghi dove una stanza potrà essere utilizzata ai fini dell'intervista. L'obiettivo sarà quello di intervistare gruppi di amici in modo da comprendere a pieno i cambiamenti che i sopravvissuti al terremoto hanno osservato nella loro vita sociale e più in generale nella loro comunità.

### ***Introduzione***

Una breve introduzione da parte di ogni partecipante al gruppo e intervistatore, ciò aiuterà a creare un'atmosfera più rilassata per tutti.

In questa fase, l'argomento chiave della ricerca verrà spiegato e verrà consegnato il documento "Informazioni per i partecipanti". Verrà spiegato il contenuto di questo documento con particolare attenzione a cosa si intende per confidenzialità e a chiarire che l'intera intervista sarà audio registrata. Successivamente i partecipanti firmeranno il consenso alla partecipazione laddove avesse deciso di proseguire con l'intervista.

### ***Regole di gruppo***

Non ci sono risposte sbagliate ma semplicemente diversi punti di vista. Sentitevi liberi di condividere il vostro punto di vista anche se è diverso da quello di un altro partecipante. Da tenere in mente che noi siamo interessati sia a commenti negativi che positive, spesso quelli negativi sono i più utili.

Non dovete necessariamente concordare con ciò che viene detto da un altro partecipante, ma vi è chiesto di rispettare le idee altrui.

Siete tutti invitati a spegnere i vostri telefoni cellulari o ad impostarli col silenzioso.

### ***Iniziamo***

Siamo qui per parlare del terremoto e che impatto ha avuto sulla vostra vita sociale e più in generale sulla vita di comunità.

### ***La vostra vita sociale***

Come pensate che la vostra vita sociale sia cambiata dopo il terremoto? Se ripensate al passato, come descrivereste la vostra vita sociale prima del terremoto? Quali aspetti della vostra vita sociale sono stati principalmente compromessi dal terremoto? Come amici, i posti in cui eravate solito incontrarvi sono ancora aperti? Avete ancora posti in cui vi riunite e trascorrete del tempo insieme e vi aiutate a vicenda? Quanto spesso riuscite a vedervi? La frequenza con cui vi vedete adesso è diversa da quella con cui vi vedevate prima del terremoto? Come vi fa sentire tutto ciò di cui abbiamo discusso finora?

### ***La comunità***

Come pensa che la vostra comunità sia cambiata dopo l'evento? Come era prima? Quali aspetti ritenete siano stati principalmente compromessi dal terremoto? Secondo voi c'è un'unica opinione riguardo al post-terremoto o molteplici?



Credete che sarebbe stata utile per tutta la comunità avere qualche forma di educazione al rischio di un terremoto nella vostra zona? In che modo?

***Futuro***

Pensate che L'Aquila/Amatrice/Accumoli ha un futuro? Cosa vorresti vedere nel prossimo futuro per la vostra comunità? Qualche forma di intervento, educazione, supporto? Il senso di comunità è ancora vivo? Pensate possa aiutare nel processo di ricostruzione?

**Grazie mille per aver partecipato a questo progetto.**

## Appendix D. Translations and Back Translations Examples

### Chapter Three. IPA Walking Interviews: pilot study

#### - Gianluca's quote

“Mi dispiace perché so che la casa sta bene, soprattutto mio padre ... lui ci viene proprio tutti i giorni. ... perché non c’ha senso abbandonarla ... stare ad abbandonare una casa che lui c’ha speso una vita per farla e ... solo rabbia perché non mi danno l’opportunità di metterla apposto.”

*“I feel sorry because I know that the house is okay ... even more for my dad, he comes here every day.... it just doesn't make any sense to abandon it ... abandoning a house that took him an entire life to build ... I am angry because they just won't allow me to fix it.”*

“Mi dispiace perchè so che la casa sta bene ... ancora di più per mio padre, lui viene qui ogni giorno ... non ha senso abbandonarla ...abbandonare una casa che lui c’ha messo una vita a costruire ... sono arrabbiato perchè non mi permettono di sistemarla”

#### - Flavia's quote

“... la destinazione l’hanno scelta loro ... noi volevamo stare vicini e invece a mio fratello l’hanno mandato con la bambina appena nata e altre due bambine

l'hanno mandato a Preturo che è all'opposto di Paganica 2 ... c'era l'elenco con le preferenze, ma è stata una farsa"

*"... the final destination was chosen by them (government bodies) ... we wanted to be close to one another and instead they sent my brother, a newborn and two more kids to Preturo which is exactly at the opposite side of Paganica 2 ... there was a list of preferences, but it was just a joke"*

"... la destinazione finale l'hanno scelta loro ... noi volevamo stare vicini l'uno all'altro e invece hanno mandato mio fratello, un neonato e altri due bambini a Preturo che è esattamente all'opposto di Paganica 2 ... c'era una lista con le preferenze, ma era un scherzo"

#### **Chapter 4. Social and Community consequences of the 2009 L'Aquila and 2016**

##### **Amatrice's Earthquakes**

###### **- L'Aquila**

"Qui? [Piazza Duomo] ... verso le cinque e mezza era pieno di bambini che giocavano ... le mamme stavano qua e chiacchieravano e facevano comunità

*"... around 17.30 Piazza Duomo (the main square in the town centre) would be packed with kids playing around while their mothers would just sit together and talk ... as members of a community ..."* (Luigi, 63)

“Allora, ti parlo del rapporto con i miei amici. Dei miei amici storici, di 40 anni. Ci vediamo molto di meno, ognuno di noi sembra che abbia da fare chissà che cosa e poi si passano le giornate dentro casa a non fare niente ... però si è perso qualcosa ...” (Luisa, 64)

*“... I am talking about my old friends who I’ve known for 40 years ... we rarely meet ... we all seem so busy and then we end up spending our days at home on our own doing nothing ... something has been lost ...” (Luisa, 64)*

- Amatrice

“non c’è niente da fare. Una cosa banale, se uno la sera vuole uscire ... il sabato sera ... devi andare non lo so ad Ascoli, a San Benedetto, a Rieti ...” (Emma, 21)

*“... there is nothing to do ... something as simple as going out on a Saturday night, now means having to drive all the way to Ascoli, San Benedetto, and Rieti ...” (Emma, 21)*

“... quando ti guardi intorno e passi un inverno dove lavori al bar e ti entrano tre persone durante il giorno ... Ora c’ho 22 anni ma magari tra 5/6 anni di fare la barista non mi va più. Qua non ci potrò rimanere perché i lavori che ci stanno ... non ci sono industrie o fabbriche ...a meno che non fai l’agricoltore ... non voglio

essere pessimista però ... guardando le cose come stanno oggi è così” (Lorenza, 22)

*“... when you look around and spend the entire winter where every day maybe three people walk in (in the bar) ... I am 22 now and perhaps in five or six years I will not want to work in a bar anymore ... these are the kind of jobs you find here ... there aren't factories ... your only option is to become a farmer ... I don't want to be pessimistic but if you look at how things are today ...” (Lorenza, 22)*

#### **Chapter Five. New perspectives on the events that followed the 2009 L'Aquila and 2016 Amatrice's earthquakes: two focus groups.**

##### **- L'Aquila**

“... Ti faccio un esempio stupido, mia sorella c'ha 6 anni in meno di me ... il giorno prima [del terremoto] era un Sabato e per me il Sabato era andare in centro ... mia sorella pure lo stesso sabato con tutto che il centro era ancora centro ed era bello, per me, mia sorella stava a L'Aquilone [centro commerciale] con le amiche, già prima ...” (Annalisa, 28)

*“... I'll give you a stupid example, my sister is six years younger than me ... the day before [the earthquake] it was a Saturday, and for me that meant going to the town centre ... My sister, even if the town centre at that point was still very*

*beautiful, was at the L'Aquilone [shopping centre] with her friends, even before [the earthquake] ...” (Annalisa, 28)*

“... Ti faccio uno stupido esempio, mia sorella è sei anni più piccola di me ... il giorno prima [del terremoto] era un Sabato, e per me quello significava andare in centro ... Mia sorella, anche se il centro a quel punto era ancora bellissimo, era a L'Aquilone [centro commerciale] con gli amici, anche prima [del terremoto] ...” (Annalisa, 28)

- Amatrice

“... tu pensa che quando c'erano le scosse l'unica ancora ... era vedere se cascava sta cavolo di torre del corso. Perché secondo me se fosse cascata la torre li saremmo spariti tutti. Quella era proprio il simbolo, sarebbe stato il segno che comunque era finita. La parola fine su tutto” (Lina, 55)

*“... during the aftershocks, the only thing was to see whether the clock tower on the main street would eventually collapse. I think if the tower would have collapsed, we would have all disappeared. It was our symbol, and it would have been the symbol that everything was over. The end of everything.” (Lina, 55)*

“... durante le scosse che seguirono, l'unica cosa che tutti volevano vedere era se la torre orologio crollasse. Io penso che se la torre fosse crollata, saremmo tutti spariti. Era il nostro simbolo, e sarebbe stato il simbolo che tutto era finite. La fine di tutto.” (Lina, 55)