



ELSEVIER

Contents lists available at ScienceDirect

SSM -Population Health

journal homepage: [www.elsevier.com/locate/ssmph](http://www.elsevier.com/locate/ssmph)

## Article

# The 2005 London terror attacks: An investigation of changes in psychological wellbeing and social capital pre- and post-attacks (2003–07)–A UK panel study

Giuseppe N. Giordano<sup>a,b,\*</sup>, Martin Lindström<sup>a,b</sup><sup>a</sup> Social Medicine and Health Policy, Department of Clinical Sciences, Faculty of Medicine, Lund University, Sweden<sup>b</sup> Centre for Economic Demography (CED), P.O. Box 7083, SE-SE-220 07 Lund, Sweden

## ARTICLE INFO

## Article history:

Received 29 March 2016

Received in revised form

29 June 2016

Accepted 29 June 2016

## Keywords:

United Kingdom

Psychological wellbeing

Social capital

Generalised trust

Local social participation

The 2005 London terror attacks

Longitudinal

Panel data

## ABSTRACT

The London public transport suicide bombings, which occurred on 7th July 2005, were described as the worst single terrorist atrocity on British soil to date. Past acts of terrorism have been associated with deterioration in population mental health. They may also negatively impact levels of social capital, which is considered a buffer against poor mental health outcomes. By employing panel data from the British Household Panel Survey and following the *same* individuals ( $N_T=9287$ ) three times over a five-year period (2003, 2005 and 2007), the aim of this longitudinal multilevel study was to investigate: (i) the impact of terrorism on individual-level social capital (generalised trust and social participation) across the UK; and (ii) the buffering effects of social capital on psychological wellbeing (GHQ-12). By comparing 2005 and 2007 covariate values (including the two social capital proxies) against their pre-terror baseline (2003) measurements in two separate multilevel logistic regression models, we examined the immediate and longer-term effects of the 2005 attacks on our GHQ-12 outcome. Compared to baseline, generalised trust dropped from 44% to 36% immediately post-terror attacks in 2005, while local participation increased from 45.8% to 47.5%. Social capital levels started to return to baseline levels by 2007, yet both proxies maintained independent buffering effects against poor GHQ-12 scores in years 2005 and 2007. From this empirical evidence, it seems that though generalised trust levels are negatively affected by acts of terrorism, the accompanying increase in local active participation may aid in the re-establishment of societal norms and beliefs in later years. Decision makers should be aware that such atrocities may negatively impact on populations' generalised trust in the shorter-term. To safeguard against losing this buffer against poor mental health outcomes, local active participation should be encouraged.

© 2016 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

## Introduction

On Thursday, July 7th 2005, the city of London (United Kingdom (UK)) was subjected to "...the worst single terrorist atrocity on British soil." (Rodgers, Qurashi & Connor, 2015). At around 08.50, towards the end of the capital's morning rush-hour, three suicide bombers detonated explosive devices whilst travelling on separate London Underground trains approaching Aldgate, Edgware Road and Russell Square stations. A fourth triggered their device an hour later on a double decker bus in Tavistock Square. These four explosions resulted in a total of 52 people being killed and many hundreds being severely injured (British Broadcasting

Corporation, 2007). What emerged within days following this atrocity was the fact that all four suicide bombers were middle-class British citizens, three of whom were British-born. Furthermore, all four individuals were unknown to authorities prior to the 7th July attacks (House of Commons Report, 2006).

An eerily similar attack (also involving three bombs on the London Underground and one on a London bus) was attempted a fortnight later, on 21st July. However, none of the devices detonated and no one was physically injured. The following day at around 10.00, Jean Charles de Menezes, a Brazilian electrician living in London, was fatally shot at Stockwell tube station by armed Metropolitan police officers under a new shoot-to-kill remit. He had been mistaken for one of the failed terror plot suspects from the previous day (British Broadcasting Corporation, 2005a). By early August 2005, the current British Prime Minister Tony Blair announced in a press conference that "...the rules of the game are changing" (Jeffery, 2005). Soon after, the Terrorism Act was introduced to Parliament, which aimed to increase collective

\* Correspondence to: Department of Clinical Science, Malmö University Hospital, Clinical Research Centre (CRC), Lund University, Entrance 72, House 60, Floor 12, 204 02 Malmö, Sweden.

E-mail addresses: [Giuseppe\\_nicola.giordano@med.lu.se](mailto:Giuseppe_nicola.giordano@med.lu.se) (G.N. Giordano), [Martin.lindstrom@med.lu.se](mailto:Martin.lindstrom@med.lu.se) (M. Lindström).

security throughout the UK, though seemingly at the expense of individual and group liberties (Cobain, 2010).

Aside from the obvious physical damage the attacks incurred, acts of terrorism have been shown to have an immediate and longer-term negative effect on population mental health (Silver, Holman, McIntosh, Poulin & Gil-Rivas, 2002; Whalley & Brewin, 2007). This may be the result of two mechanisms: (i) the indiscriminate nature of acts of terrorism themselves and the subsequent collective climate of fear (O'Driscoll, 2008), and (ii) by negatively impacting on levels of social capital (Blomberg, Hess & Tan, 2011), a resource which has been empirically shown to act as a buffer against poor mental health outcomes (Ehsan & De Silva, 2015; Lindström & Giordano, 2016; McPherson et al., 2014; Whitley & McKenzie, 2005).

To expand and clarify, past research shows that whole populations, not just those individuals in the immediate vicinity of such events, suffer from worse mental health outcomes after such traumatic events (Silver et al., 2002; Whalley & Brewin, 2007). Though the former are more likely to recover faster (Knudsen, Roman, Johnson & Ducharme, 2005), there appears to be a minority who continue to display negative mental health symptoms, despite not having been in close geographic proximity to the terror incident (Whalley & Brewin, 2007).

The relationship between social capital and terrorism appears more complex. Social capital is considered both an individual and collective resource (Berkman & Kawachi, 2000; Bourdieu, 1986; Coleman, 1988; Portes, 1998; Putnam, 2000). It is often defined in terms of social networks, norms of reciprocity and trust (Putnam, 2004), and has been considered a public good, providing positive externalities (unintended benefits) for all (Putnam, 2000). This rather simplistic idea is open to critique, however, one pertinent example being how the role of social capital (in understanding the potential for acts of terrorism) can be succinctly argued as both a restraint and a catalyst (Helfstein, 2014).

It is of greater interest to us, however, to investigate if such terror atrocities may have impacted on levels of social capital, measured by *generalised trust* and *active participation* in this study. The presence of social capital has been hypothesised to buffer against poor mental health by reducing levels of perceived psychological stress (Kawachi, Kennedy & Glass, 1999). High levels of stress have been shown to increase blood cortisol levels, which in turn, have been linked to deleterious health outcomes, including worse mental health (Roy & Campbell, 2013; Watson & Mackin, 2006). Any reduction in social capital after the terror attacks in 2005, therefore, may further compound the effects of terrorism on mental health outcomes.

Of the two social capital proxies utilised in this study, *generalised trust* levels (trust in strangers) may be negatively impacted by a collective climate of fear after the 2005 terror attacks (O'Driscoll, 2008), compounded possibly by the breaking news that the four suicide bombers were 'home-grown' middle-class British citizens (British Broadcasting Corporation, 2005b). Another theory suggests that specific political responses to terrorism that include increased vigilance, security and control could further erode both *generalised* and *institutional* trust (Barker, 2005; Furedi, 2005; Hobbes, 1996). In the case of the UK in 2005, the immediate shoot-to-kill remit of the Metropolitan police force and the rapid draughting of the Terrorism Act are two such policy examples that may negatively affect trust.

Levels of local *active social participation* (our second social capital proxy) could be negatively affected by terrorism, any climate of fear translating into individuals feeling too concerned or even intimidated to venture out more than deemed essential (British Broadcasting Corporation, 2005c). Conversely, local active participation (in the form of peaceful anti-terrorism demonstration, for example) may increase, as a way to express shared emotions and

to reinforce positive social norms and beliefs (Paez, Basabe, Ubillos & Gonzalez-Castro, 2007). Social participation in this study is captured by individuals' *active* (not passive) membership in local groups, organisations or leisure activities (see appendix for a full list). Increased active participation, as defined here, may help reverse any downward trend in trust (Putnam, 2000) and could also have positive effects on psychological wellbeing through increasing social ties and (re-establishing) community integration (Kawachi & Berkman, 2001).

To date, there is no empirical research published that investigates individuals' mental health outcomes surrounding the 2005 London terror attacks, whilst considering the role of social capital. This study attempts to fill this lacuna. By employing panel data and following the *same individuals* ( $N_T=9156$ ) from 2003–2007, the aim of this study was to investigate: (i) any short- and longer-term fluctuations in individual-level social capital (as measured by generalised trust and social participation); and (ii) if the presence of social capital buffered against worse psychological wellbeing immediately post-attacks in 2005 and also longer term (2007). We hypothesise that there will be a significant drop in trust and social participation immediately post-terror attacks; despite this, we further hypothesise that the buffering effects of social capital will remain evident across the timeframe of this study.

## Methods

### Data collection

Since 1991, the UK's Economic and Social Research Centre have annually conducted the British Household Panel Survey (BHPS), a longitudinal survey of randomly selected private households. The first (1991) cohort sample was randomly selected by using a two-stage cluster design, with a total of 8,166 private postal addresses around the UK being originally selected. Those aged 16 years or older were invited to participate, with a total of 10,264 individual face-to-face interviews being completed in the first BHPS Wave (participation rate 95%). Until the final Wave (18) in 2008–9, individuals from this nationally representative sample of selected households had been interviewed annually with a view to identifying social and economic changes within the British population. All data were weighted after collection by the Research Centre to adjust for non-response in the standard fashion (Elliot, 1991); further weighting for longitudinal analyses is not recommended (Taylor, Brice, Buck & Prentice-Lane, 2010).

For each annual Wave, face-to-face interviews took place between September and May. In all eighteen Waves of the BHPS, approximately half of all anticipated interviews for that year were completed by the end of October. This is particularly relevant for the purposes of this study, as *all* measures in Wave 15 (2005) were taken post-terror attack, with over 50% of 2005 values being collected within 3–4 months of the terror atrocities. Greater details of the selection process, weighting and participation rates can be found on-line (Taylor et al., 2010).

The raw data for this panel study come from the BHPS *individual-level* responses ('INDRESP') from Waves 13 (2003), 15 (2005) and 17 (2007). Unique cross-wave identifiers meant that individuals, who responded to all considered variables in this study, could be followed across this timeframe ( $N=9153$ ). Full interview participation rates for year 2003 (as compared to year 2002) were 93.1%, with 55.3% being from the original 1991 cohort sample.

The Research Centre fully adopted the Ethical Guidelines of the Social Research Association; informed consent was obtained from all participants and strict confidentiality protocols were adhered to

Download English Version:

<https://daneshyari.com/en/article/1092355>

Download Persian Version:

<https://daneshyari.com/article/1092355>

[Daneshyari.com](https://daneshyari.com)