

Psychological effects of the earthquake of May 29th 2008 in Iceland: *Preliminary findings*

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Collaborators

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Directorate of health



National Commissioner of the
Icelandic Police
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The Evangelical Lutheran
Church of Iceland

Introduction

- ▶ Natural disasters are a serious treat that many Icelanders face.
- ▶ Psychological impact can be great and long-lasting:
 - Psychiatric problems include Posttraumatic Stress Disorder (4 – 63%), Major Depressive Disorder (3 – 22%), Alcohol/drug problems (2 – 5%)
 - Physical health problems
 - ↳ Interference to job performance and quality of life.

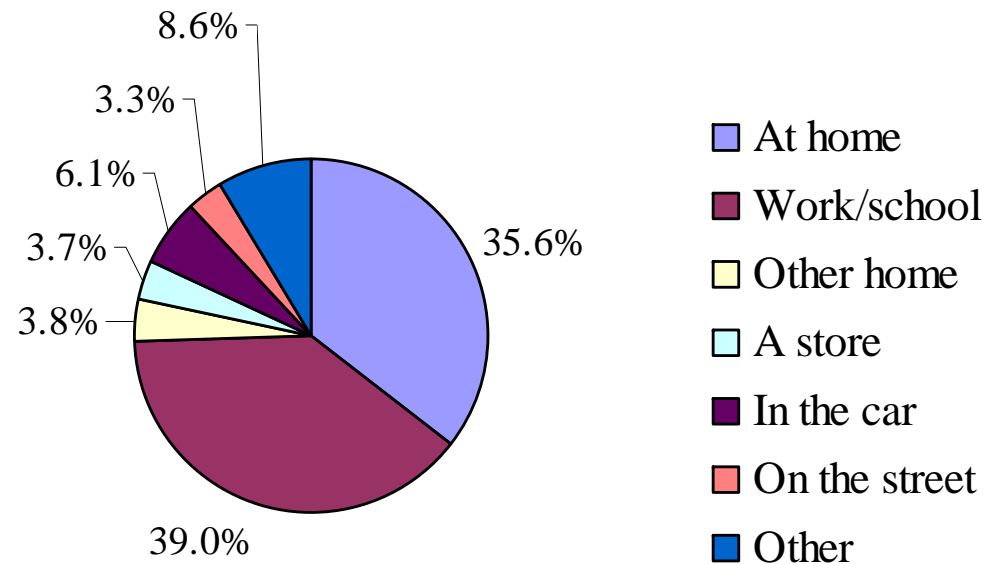
(t.d., Basoglu o.fl., 2002; Chou, o.fl., 2003; 2007; Salcioglu o.fl., 2003; 2007; Böðvarsdóttir og Elklit, 2004; Akason, o.fl., 2006)

- ▶ Purpose of the current report was to examine the psychological effects of the earthquake of May 29th 2008 on the inhabitants in south-west Iceland
 - 800 Selfoss, 801 Selfoss, 810 Hveragerði, 815 Þorlákshöfn, 820 Eyrabakki, 825 Stokkseyri

Method

- *Participants:*
 - *1514 individuals who lived in the affected area and experienced the earthquake*
 - *56,9% Female*
 - *Age: 18 to 80 years*
 - *Randomly selected from the National Registry of Iceland*
- Questionnaires sent to participants via e-mail or regular mail
- Repeated at four time points
 - Approximately two, four, eight and 12 months following the earthquake.
- **Report here: Preliminary findings from the first time point**
 - Completed 8-15 weeks following the earthquake

Location during the earthquake



Perception of the earthquake

- ▶ 78% of participants (n=1183) experienced the earthquake as a traumatic event
 - Reported significant fear, helplessness or fear of someone else's safety during the earthquake
 - Met the first criteria for Posttraumatic Stress Disorder (PTSD)
- ▶ Injuries
 - 1,5% got injured
 - 3,4% - close family member or a friend was injured
- ▶ Aftershocks
 - 95% experienced aftershocks
 - Most people (70,3%) found them distressing
 - 10,0% - not at all distressing

Sense of safety

- ▶ Sense of safety following the earthquake
 - 32,2% - within 24 hours
 - 57,9% - within 2 weeks
 - **16,9% - still not safe**
 - 8,2% - never felt unsafe

- ▶ *Retrospectively* ~ 2-3 months following the earthquake:
 - Sense of safety during the earthquake
 - 59,0% - rather or very safe
 - 18,8% - rather or very unsafe

- ▶ Do you predict another similar earthquake in the next 5 years?
 - 44,9% rather or very likely
 - 27,1% rather or very unlikely

Prior potentially traumatic events ~ prior earthquakes

▶ Prior potentially traumatic events

- 62,5% had experienced some other potentially traumatic events during their lifetime

▶ Prior experience with earthquakes

- 96,6% had experienced at least one other earthquake
 - 90,8% experienced the 2000 earthquake in South Iceland
 - 77,6% felt that the May 29th earthquake was the strongest they had experienced

Psychological support

▶ Psychological first aid

- 8,5% sought out psychological support following the earthquake once and 1,6% two or more times
 - 85,1% found the support helpful
 - Most people (88%) used the support with in 0-14 days following the earthquake
 - Females 3x more likely than males to seek support

▶ Great majority of participates (77,6%) did **not** seek out any support following the earthquake

- 67,5% did not need support
- 22,3% got support from friends and family
- 0,9% did not know where to get help
- 5,5% did not think support would help

Posttraumatic stress symptoms

Among those who experienced the earthquake as a traumatic event:

- ▶ 7,1% reported significant PTS symptom (≥ 14 on the PSS-SR)
 - Among those who experienced the earthquake as a traumatic event
 - ...
 - 47,9% reported moderate to severe symptoms of depression
 - 50% reported moderate to severe symptoms of anxiety
 - 27,6% reported significant indicators of alcohol problems
 - KVK (8,0%) > KK (2,4%) ($\chi^2(1, n=1182) = 13,89, p \leq 0,001$).
- Individuals who reported significant PTS symptoms were 3x more likely to have used psychological first aid than those who did not report these symptoms ($\chi^2(1, n=1182) = 19,49, p \leq 0,001$).

Other psychological problems

Among those who experienced the earthquake as a traumatic event:

- ▶ 7,1% reported moderate to severe symptoms of depression (≥ 18 on BDI-II)
- ▶ 7,9% reported moderate to severe symptoms of anxiety (according to the Beck Anxiety Inventory)
- ▶ 13% reported significant indicators of alcohol problems (according to the SMAST)

Hveragerði, ICEARRAY and zoning of participants

- Dots indicate ICEARRAY recording sites

