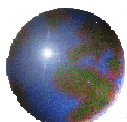


## Factors affecting the process of taking action at individual level regarding mitigation and preparedness for an earthquake in Istanbul



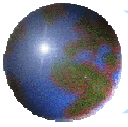
Sidika Tekeli-Yesil, MPH & EMPH

Swiss Tropical Institute Department of Public Health and Epidemiology  
and  
Institute of Social and Preventive Medicine, University of Basel, Switzerland



### *Introduction*

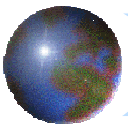
- Disaster Management: Prevention of illness and health promotion vs. cure
- Disaster risk reduction was described in the context of the ISDR as a shared responsibility between governments, communities and individuals.
- Besides preparedness at governmental, sectoral, and institutional levels, preparedness at community and personal levels also plays a critical role in preventing the consequences of disasters and sustaining resilience. This point is particularly valid for mega cities.
- People tend to be uninterested and unwilling in taking action and reducing risks.
- In this context mega cities needs a particular attention because of their vulnerabilities and features.



## *Research Aim*

- To test whether there is a difference considering earthquake awareness and mitigation + preparedness (action) among:
  - Residents of relatively high risk and low risk zones
  - Between groups with different socio-economic levels
- To investigate the process of taking action regarding earthquake preparedness and mitigation and to identify the factors influencing this process..

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## *Research Methods & Research Site*

### ● Istanbul

Population: 10 018 735 (2000)

Annual Growth Rate: ‰ 33.1

Population density: 1928 per km<sup>2</sup>

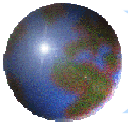
Expecting an earthquake

Bakirkoy (relatively higher risk zone)

Beykoz (relatively lower risk zone)

- Stratification according to socio-economical level in both districts
- First part of a larger study

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## *Research Methods & Research Site*

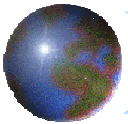
### ✚ First part: qualitative methods

- ✓ Focus Groups Discussions (FGDs),
- ✓ In-depth Interviews

✚ 12 Focus Group Discussions + Pre-test  
with people living in high risk zone and low  
risk zone

✚ 11 In-depth interviews with experts and  
professionals

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## *Research Methods & Research Site*

### ✚ Second part: quantitative methods

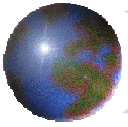
#### ✓ Survey

face to face interview with 1200 people living in  
high risk zone and low risk zone

(Stratification according to socio-economical level  
in both districts)

Collected data is not analysed yet

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## *Research Methods & Research Site*

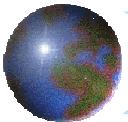
### **FGDs:**

- Sampling strategy: purposive - existing groups in the two districts
- Adults
- Socio-economic and education level are considered
- Question guide with open ended questions
- The groups consisted of 6 to 10 people

### **In-depth interviews:**

- Authorities, experts in the social and natural sciences, administrators and those responsible from various preparedness programs
- ✓ Discussions & interviews were audiotaped and then transcribed verbatim.
- ✓ Analysis: software program Maxqda®

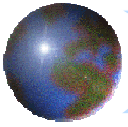
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## *Findings*

Some of the findings which were commonly mentioned both in FGDs and in-depth interviews:

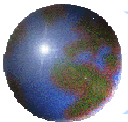
- In general, level of awareness is high, level of action is still problematic.
- There is a difference considering awareness (including risk perception) and action between risk zones
- Relatively bigger difference between socio-economical levels within and between the districts.



## *Findings*

- ✚ In general; 1999 earthquakes has mainly positive but also some negative effects considering awareness and mitigation and preparedness
- ✚ a mile stone.

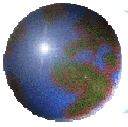
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## *Findings*

- ✚ ***Personal:***
  - + Experience (participating in rescue and solidarity activities in 1999)
  - Absence of personal believe in effectiveness of the measures (structural vs.. non-structural, institutional & communal vs.. personal)
  - ± Religious attitude and fatalism

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## *Findings*

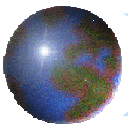
### ✚ Social:

- + **Social interaction.**
- **Lack of safety culture**
- **Other risks in the society**

### ✚ Environmental:

- **Onset time**
- **Normalisation bias**

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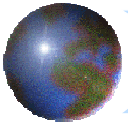


## *Limitations*

(L) Istanbul has 32 districts with different backgrounds - Only in two districts

(L) Even though triangulation of sources (people from the community & experts) exists, as the quantitative data is not analysed yet, triangulation of methods is missing at the moment, so there is a validation problem.

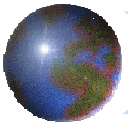
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## *Discussion and Recommendations*

- ⊕ Understanding and identifying intervening factors might help better preparedness programs even the results could have general relevance for other hazards and countries. (local – global)
- ⊕ All of the actors of disaster risk reduction should participate in the activities (government/institutions, community, persons)
- ⊕ Better risk communication might help;
  - ✓ To make people believe also in the effectiveness of non-structural measures
  - ✓ To make people believe also in personal preparedness
  - ✓ To overcome the problems of normalisation bias and influence of on set time.

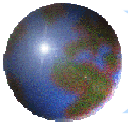
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## *Discussion and Recommendations*

- ⊕ In case religious attitude or fatalism mentioned; it is often acting as a coping strategy
- ⊕ Focusing on safety culture could reduce the effects of many risks including earthquakes.
- ⊕ Social interaction and networks are more useful for dissemination of intensive knowledge and for motivation of attitudes and intention
- ⊕ Need to work more on the 1999 experiences

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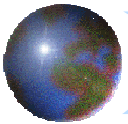


## *Conclusion*

Individual preparedness for earthquakes and disasters are complex processes, which are determined by many social, economical, environmental, and personal factors.

Therefore, for safer cities, individuals' activities regarding earthquake preparedness or any other disaster should be supported by and integrated in governmental / institutional and communal preparedness.

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Teşekkürler

Thanks

Danke Schön

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