

**To Evacuate or To Stay?:
Factors Which Influenced Japanese
People's Decision-making in
Emergencies**

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Outline

- Background
- Our Research
 - Method
 - Study 1 (Quantitative Study)
 - Study 2 (Qualitative Study)
 - Result
 - Discussion
 - Conclusion

The Role of Emotions (Fredrickson, 2001)

People with

positive emotions



are more likely to look for opportunities and to try new experiences



have a broader sense of options

negative emotions








are more likely to narrow their focus to the potential threat



have a restricted sense of options

Negative Aspects of Positive Emotions

People with Positive emotions can	→	 be lazy thinkers
		 be unaware of potentially useful negative information
		 fail to take a precautionary approach
		 underestimate risks
		 overestimate their likelihood of achieving desired outcomes.

(Aspinwall, 1998; Forgeard & Seligman, 2012; Norem & Chang, 2002)

Our Research

Three Disasters in Japan (2011)

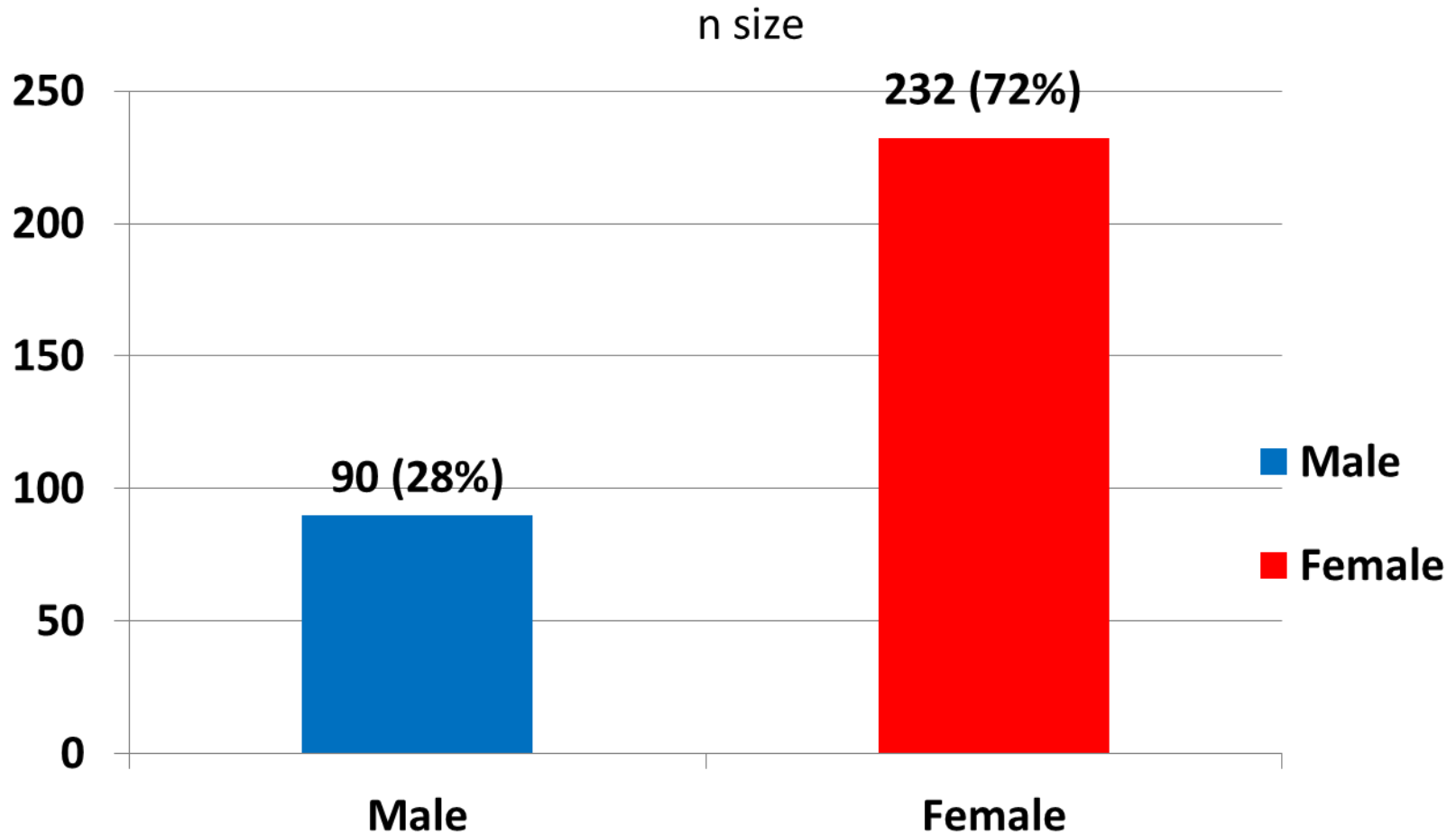


Instrument

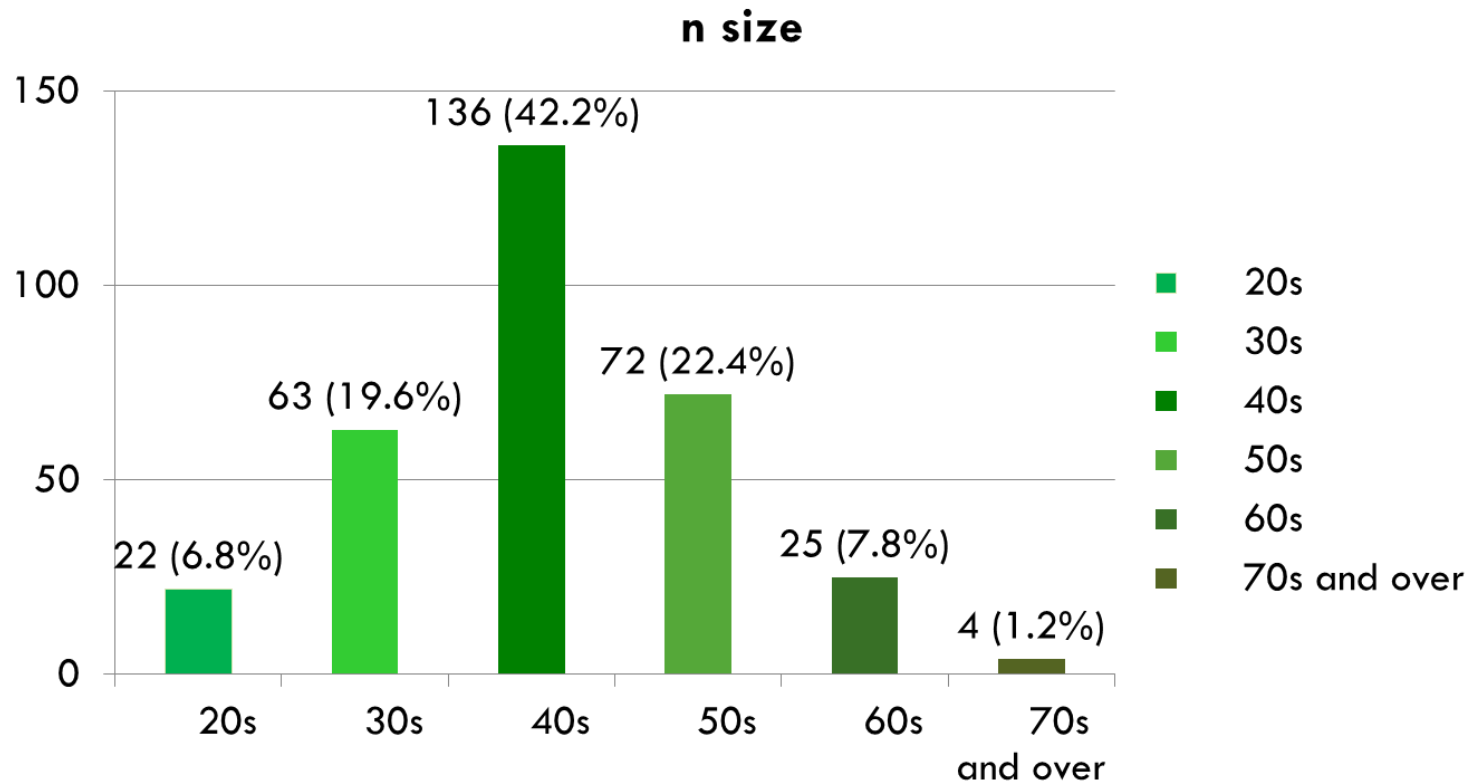
On-line Questionnaire

- Quantitative data
- Qualitative data

Participants (n=322)



Participants (Age)



Study 1

(Quantitative)

Findings (Study 1)

People with

positive emotions

negative emotions



were less likely to consider various options.



were more likely to consider various options.



were more likely to have stayed

were more likely to have left



Study 2 (Qualitative)

Research Question

- What are the factors that influenced the participants' decision to stay or to evacuate their area?

Study 2: Method & Analysis

Qualitative Data

- Open-ended questions:
 - Options the participants had in mind at the time of the disasters
 - Comments based on their experience in the disasters

Analysis

- NVivo

Study 2: Result (Stayed)

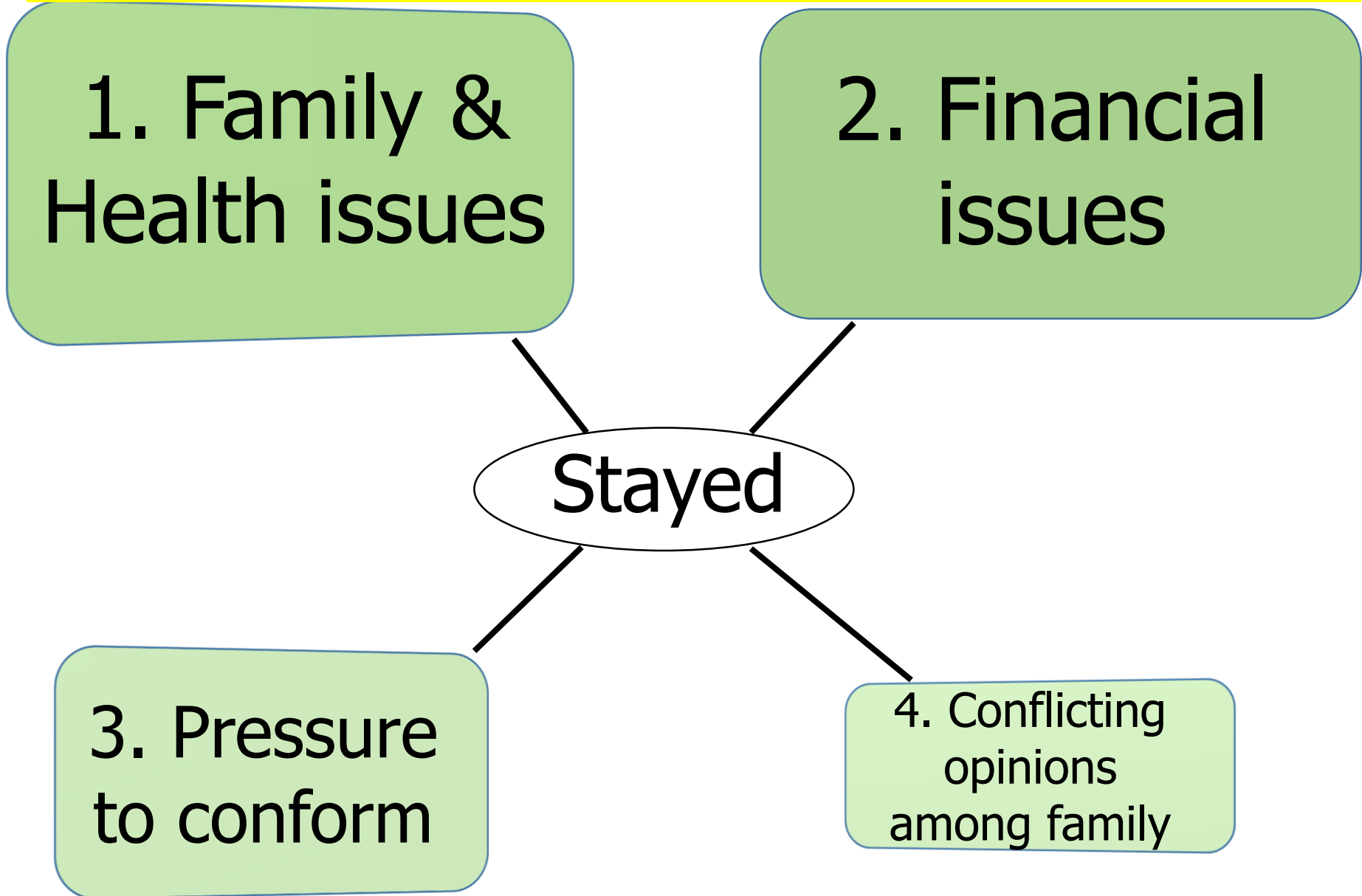
1. Family & Health issues

2. Financial issues

Stayed

3. Pressure to conform

4. Conflicting opinions among family



1. Family & Health issues (Stayed)

- Their own illness



I was sick under treatment and... I was unable to live alone.

No. 39

- Elderly family members' illness



I was looking after a family member with dementia alone, so I was uncertain about the future...

No. 143

- No urgency without any children



I would have definitely evacuated if I had a child.

No. 271

2. Financial issues (Stayed)

- Work



I have my work and partner to consider and haven't moved house.

No. 319

- Lack of finance



I would have moved house if I had money or financial support.

No. 261

3. Pressure to conform (Stayed)

- Fear of social sanction



I have a chronic illness... I hesitated to evacuate, leaving medical staff. I didn't want to have trouble getting medical support from them when I came back after the evacuation.

No. 175

- Fear of disturbing harmony



Nobody around me was going to evacuate the area, so I questioned my sanity when making a lot of fuss (about the situation).

No. 310

- Fear of losing face (to avoid shame)



I needed to stay in Tokyo with my husband as my family worried about losing face.

No. 116

4. Conflicting opinions among family (Stayed)



No. 163

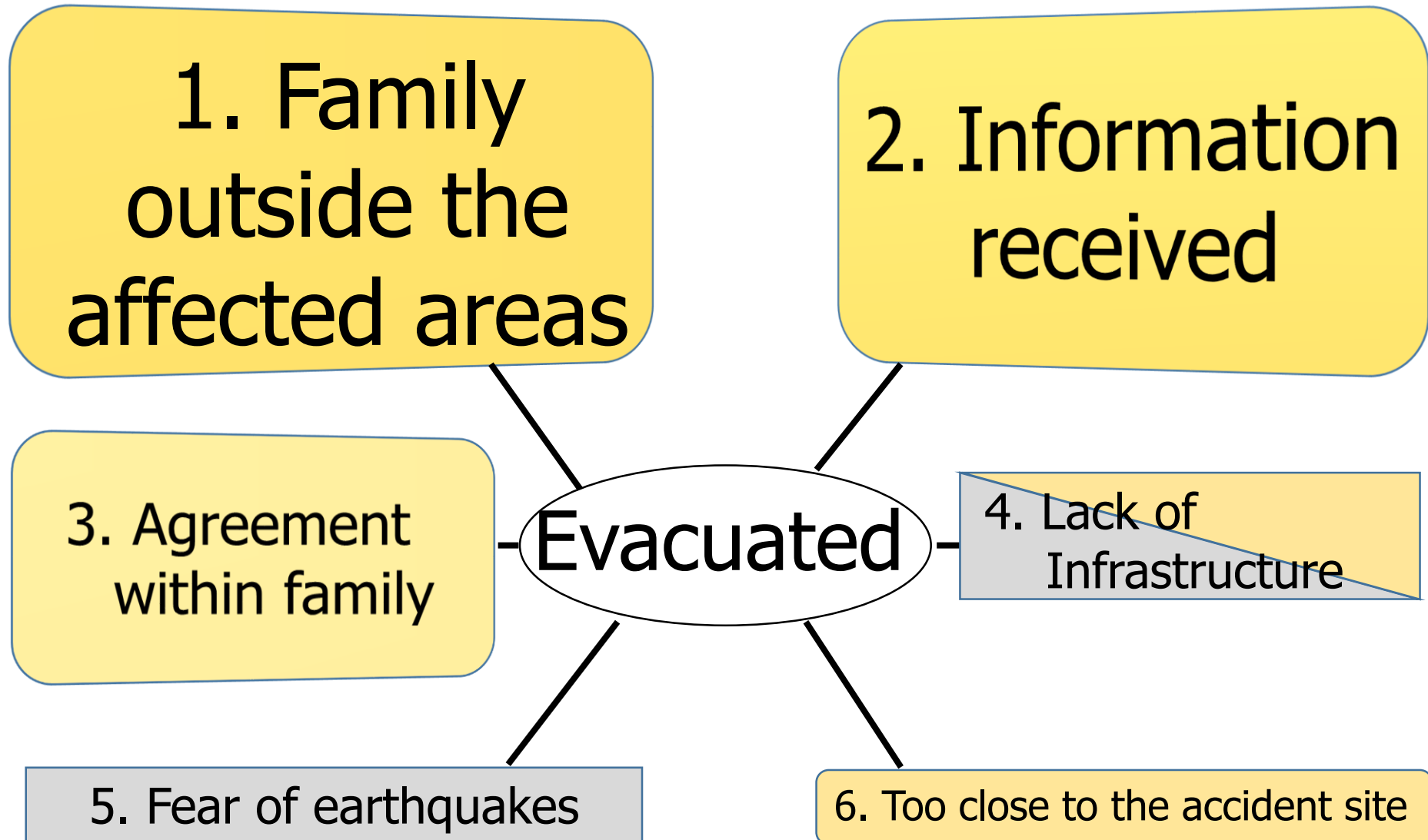
There were conflicting opinions about a sense of crisis among my family in March, 2011. Thus, we couldn't agree on moving house.



No. 173

I once decided to evacuate the area, but my elderly mother wouldn't agree. I ended up staying.

Study 2: Result (Evacuated)



1. Family outside the affected areas (Evacuated)

50s

I was in Tokyo at the time... and went back to my house in western Japan.

No. 12



40s

We lived on the east side of Japan, but I made my wife and our children go back to my parents' house in the Kyushu area (west side of Japan).


No. 254

2. Information received (Evacuated)

- Advice to evacuate

 20s	<i>My uni advised us that we go back to our parents' house... My mother called me to come back to the house... So, I left Sendai (an affected area).</i>
No. 298	
 40s	<i>My husband is a foreigner and he received an evacuation advisory from his country's embassy in Japan. So, we evacuated our area to Osaka.</i>
No. 244	

- Got information themselves

 50s	<i>I was surprised by the discrepancy in the information from the major media, and that from experts with conscience on the internet. I realised we cannot get truth from the major media.</i>
No. 281	

3. Agreement within family (Evacuated)



50s

We lived in Chiba prefecture at the time. The whole family left there for Kyoto prefecture in the west.

No. 72



40s

Our family left the area (in the east) for Wakayama prefecture (in the west) on 19 March, 2011.

No. 125

4. Lack of Infrastructure (Evacuated)



No. 13

It was hard to get food and petrol, and I had no water supply, either. So, I went back to my parents' house in western Japan.



No. 298

I had lost the essential utilities in Sendai (northeast)... I felt stressed when it was impossible to foresee how things would turn out, so I left there.

5. Fear of earthquakes (Evacuated)



I felt relieved about life without shakes after leaving the prefecture I lived in.

No. 20



(I left my area...) I felt horrified that natural disasters do happen all of sudden. This earthquake disaster is the biggest one in my whole life.

No. 179

6. Too close to the accident site (Evacuated)



No. 49

I lived within a 20 km radius of the Fukushima nuclear station until 12 March 2011. I left the area after the explosion... for Akita prefecture with my children.

Discussion

RQ: What are the factors that influenced the participants' decision to stay or to evacuate their area?

	4 Factors (for People Who Stayed)	6 Factors (for People Evacuated Their Area)
1.	Family & Health issues	Family outside the affected areas
2.	Financial issues	Information received
3.	Pressure to conform	Agreement within family
4.	Conflicting opinions among family	Lack of Infrastructure
5.		Fear of earthquakes
6.		Too close to the accident site

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Conclusion

- Both physical and emotional factors - people's decision to stay or evacuate
- Another language - a great help to maximise the amount and quality of information
- Cultural factors - an important role in influencing people's decisions/behaviour

Thank you!