

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form ([see an example](#)) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Huge tsunamis worsen blood glucose and blood pressure controls more than earthquake damage alone
AUTHORS	Susumu, Ogawa Mikihito, Ishiki Kazuhiro, Nako Masashi, Okamura Miho, Senda Takuya, Sakamoto Sadayoshi, Ito

VERSION 1 - REVIEW

REVIEWER	Takashi Kadowaki MD PhD Professor at Department of Diabetes and Metabolic Diseases, Graduate School of Medicine, The University of Tokyo
REVIEW RETURNED	21-Feb-2012

GENERAL COMMENTS	<p>General comments</p> <p>In this study, the authors tried to assess the impact of the huge earthquake and tsunami on the Japanese subjects with diabetes who had to evacuate from the disaster. They concluded that the large earthquake accompanied by the tsunami gave the significant influence to the blood glucose and blood pressure controls through insufficient prescription due to loss of clinical records and inappropriate diet in refugee life. Overall, the study was well conducted and the conclusion is quite informative. However, the further analysis and discussion on the diet in refugee life in terms of its impact on the blood pressure would make this manuscript very much improved. It is reasonably speculated that inappropriate diet in refugee life may have affected blood pressure control through an increase of salt intake by some of supplied food such as instant noodles. Furthermore, as for the higher blood pressure of female members of tsunami (-) group, it is desirable to assess the drug compliance.</p> <p>Minor points</p> <ol style="list-style-type: none">1. In the Supplementary Figure 8 (S8), the mean value of % change in DBP is 8.5 for tsunami (+) group (n=28), and for its female subgroup (n=17) and male subgroup (n=10), mean values are 14.1 and 10.4 respectively. Is this correct?2. As for references, it is better to cite previous studies below. These described the influence of tsunami from the psychological and social viewpoint, and Ramachandran showed the results of higher stress scores in women. Prueksaritanond, S. and R. Kongsakol, Biopsychosocial impacts on the elderly from a tsunami-affected community in southern Thailand. <i>J Med Assoc Thai</i>, 2007. 90(8): p. 1501-5.
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	Ramachandran, A., et al., Stress and undetected hyperglycemia in southern Indian coastal population affected by tsunami. J Assoc Physicians India, 2006. 54: p. 109-12. 3. There is no description about the informed consent of subjects. It should be noted.
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REVIEWER	Pamela Allweiss MD, MPH Medical Officer Centers for Disease Control and Prevention Division of Diabetes Translation Atlanta, GA USA
REVIEW RETURNED	03-Feb-2012

THE STUDY	<p>I made some minor edits based on standard written English but certainly the editor could make more edits as needed.</p> <p>Note: The key words should also include: disasters, preparedness</p> <p>A bit of background information on the effects of earthquakes and tsunamis on glucose and blood pressure control would be helpful so that the effects of these specific events could be put into perspective. and common elements could be identified. Some helpful articles include (and there are many others):</p> <p>Clinical and Experimental Hypertension, 28:719–729, 2006.</p> <p>Fonseca V et al Impact of a Natural Disaster on Diabetes: Exacerbation of disparities and long-term consequences. Diabetes Care 2009; 32:1632–1638.</p> <p>Inui A et al. Effect of the Kobe earthquake on stress and glycemic control in patients with diabetes mellitus. Arch Intern Med 1998;158:274–278.</p> <p>Kamoi K et al. Effect of the 2004 Mid Niigata Prefecture earthquake on glycemic control in type 1 diabetic patients. Diabetes Res Clin Pract 2006;74(2):141–147.</p> <p>Kario K et al. Disasters and the heart: a review of the effects of earthquake-induced stress on cardiovascular disease. Hypertens Res 2003;26:355–367.</p> <p>Kirizuka K et al. Influences of The Great Hanshin- Awaji Earthquake on glycemic control in diabetic patients. Diabetes Res Clin Pract 1997;36(3):193–196.</p>
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VERSION 1 – AUTHOR RESPONSE

Below are our answers to the comments made by the managing editor and your reviewers the previous time.

From the managing editor:

Please rephrase the title to reflect the research question and the study design. We find that this helps readers know that the article is reporting original research (i.e. that it is not an editorial or an opinion). We appropriately corrected pointed out part.

Please prepare the summary as brief bullet points (see previous BMJ Open articles at

bmjopen.bmj.com)

We appropriately corrected pointed out part.

Please structure the abstract as shown here:

<http://bmjopen.bmj.com/site/about/guidelines.xhtml#research>

Regarding the contributor ship: if Mikihiro Ishiki only supplied data that should not qualify for authorship. They should be thanked in the Acknowledgements section.

Mikihiro Ishiki did not only offer data but also participated the discussion, in the locale information gathering and in acquisition of the informed consent, and so he should be recognized as the coauthor.

Reviewer: Pamela Allweiss MD, MPH

Medical Officer

Centers for Disease Control and Prevention Division of Diabetes Translation Atlanta, GA

USA disclaimer: This review represents the views of the reviewer only and does not represent the views of CDC

I made some minor edits based on standard written English but certainly the editor could make more edits as needed. (Please see attached file)

Comment [pca81]: Does the author mean the influence of earthquakes and tsunamis in general or the specific one in March 2011. Perhaps. It would be clearer to say: "The influences that large earthquakes and tsunamis exert on blood glucose and blood pressure control are uncertain". Or "The influences that the large earthquake and the tsunami of March 2011 in Japan exert on blood glucose and blood pressure control are uncertain".

We appropriately corrected pointed out part. (The influences that the large earthquake and the tsunami of March 2011 in Japan exert on blood glucose and blood pressure control are uncertain)

Comment [pca82]: This should probably say "we do hope", otherwise, it is confusing.

We appropriately corrected pointed out part.

Comment [pca83]: Why? Was there a shortage of only certain drugs in distribution centers? If there was a uniform decrease in the availability of medications, is there a possible explanation why the use of some drugs decreased more than others? Were only certain medications available in shelters or stockpiles for instance?

Although it was the only medicine for which only CCB was able to be used in shelters immediately after the earthquake, the use of all antihypertensive drugs became possible within one month after the earthquake. On the other hand, such a specific medicine in shelters was not in anti-diabetic agents.

Comment [pca84]: So it seems likely that these people had their medications for diabetes. If so, how did they get access to meds? What were their circumstances? This can be linked to the explanation below.

Comment [pca85]: Link this to above comment.

The supply of anti-diabetic drugs recovered to the same situation before the earthquake within one month after the earthquake. Although a similar medication was performed in the patient whose prescription before the earthquake can be confirmed, the life and the diet have changed greatly after the earthquake. After the earthquake, eating between meals was a difficult situation for a while. Therefore, the effect of the anti-diabetic drugs was not corresponding to the blood glucose change. In the patient whose prescription before the earthquake was not able to be confirmed, a lot of the patient to whom an appropriate medication was not performed.

Comment [pca86]: Good explanations for the differences in medication usage.

When patient's characteristic and life environment are the uncertainties, non-specialist gives priority to safety more than the effects.

Comment [pca87]:

We appropriately corrected pointed out part.

Note: The key words should also include: disasters, preparedness
We added these to key words.

A bit of background information on the effects of earthquakes and tsunamis on glucose and blood pressure control would be helpful so that the effects of these specific events could be put into perspective. and common elements could be identified. Some helpful articles include (and there are many others):

Clinical and Experimental Hypertension, 28:719–729, 2006.

Fonseca V et al Impact of a Natural Disaster on Diabetes: Exacerbation of disparities and long-term consequences. Diabetes Care 2009; 32:1632–1638.

Inui A et al. Effect of the Kobe earthquake on stress and glycemic control in patients with diabetes mellitus. Arch Intern Med 1998;158:274–278.

Kamoi K et al. Effect of the 2004 Mid Niigata Prefecture earthquake on glycemic control in type 1 diabetic patients. Diabetes Res Clin Pract 2006;74(2):141–147.

Kario K et al. Disasters and the heart: a review of the effects of earthquake-induced stress on cardiovascular disease. Hypertens Res 2003;26:355–367.

Kirizuka K et al. Influences of The Great Hanshin- Awaji Earthquake on glycemic control in diabetic patients. Diabetes Res Clin Pract 1997;36(3):193–196.

We properly quoted the specified references.

Reviewer: Takashi Kadowaki MD PhD & Dr Tanaka Professor at Department of Diabetes and Metabolic Diseases, Graduate School of Medicine, The University of Tokyo

No competing interests.

General comments

In this study, the authors tried to assess the impact of the huge earthquake and tsunami on the Japanese subjects with diabetes who had to evacuate from the disaster. They concluded that the large earthquake accompanied by the tsunami gave the significant influence to the blood glucose and blood pressure controls through insufficient prescription due to loss of clinical records and inappropriate diet in refugee life. Overall, the study was well conducted and the conclusion is quite informative. However, the further analysis and discussion on the diet in refugee life in terms of its impact on the blood pressure would make this manuscript very much improved. It is reasonably speculated that inappropriate diet in refuge life may have affected blood pressure control through an increase of salt intake by some of supplied food such as instant noodles. Furthermore, as for the higher blood pressure of female members of tsunami (-) group, it is desirable to assess the drug compliance.

We inserted “It is reasonably speculated that inappropriate diet in refuge life may have affected blood pressure control through an increase of salt intake by some of supplied food such as instant noodles.”

in the Discussion section.

We also inserted "The drug compliance after the earthquake was not defective regardless of existence of the tsunami damage or the gender. The drug compliance in the female members of tsunami (-) group was not especially defective." in the Results section.

Minor points

1. In the Supplementary Figure 8 (S8), the mean value of % change in DBP is 8.5 for tsunami (+) group (n=28), and for its female subgroup (n=17) and male subgroup (n=10), mean values are 14.1 and 10.4 respectively. Is this correct?

The mean value of % change in DBP is 12.7 for tsunami (+) group (n=28), and for its female subgroup (n=17) and male subgroup (n=10), mean values are 14.1 and 10.4 respectively. We corrected it.

2. As for references, it is better to cite previous studies below. These described the influence of tsunami from the psychological and social viewpoint, and Ramachandran showed the results of higher stress scores in women.

Prueksaritanond, S. and R. Kongsakol, Biopsychosocial impacts on the elderly from a tsunami-affected community in southern Thailand. J Med Assoc Thai, 2007. 90(8): p. 1501-5.

Ramachandran, A., et al., Stress and undetected hyperglycemia in southern Indian coastal population affected by tsunami. J Assoc Physicians India, 2006. 54: p. 109-12.

We properly quoted the specified references.

3. There is no description about the informed consent of subjects. It should be noted.

We inserted "We are receiving informed consent from the patients and the family for this research" in the methods section.

VERSION 2 – REVIEW

REVIEWER	Pamela Allweiss MD, MPH Centers for Disease Control and Prevention Division of Diabetes Translation USA
REVIEW RETURNED	13-Mar-2012

THE STUDY	Some minor editorial edits are necessary but overall the paper is better.
GENERAL COMMENTS	The authors addressed all of my prior concerns.