

When and Why Do People Post Questions about Health and Illness on Web2.0-based Q&A sites in Japan?

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Introduction

- More than **50%** of **Japanese** choose **the Internet** over newspaper, magazines, or television in order to search **information about health and illness**.
- Since academic and research institutes have **not** yet provided **enough health-related information on the Internet**, the information by patients and **nonexperts** is needed.
- The number of access to **Web2.0-based Q&A sites** such as Yahoo! Answers, which is called “Yahoo! Chiebukuro” in Japan covering over 17 million questions, and OKWave, which covers over 3.5 million questions, is the **most rapidly growing** of all kinds of websites in Japan.
- Such websites established a user rating system to reward user’s participation by utilizing **user-generated contents** and **information-sharing** methods.
- We **analyzed the questions and answers** related to health issues posted on these websites.

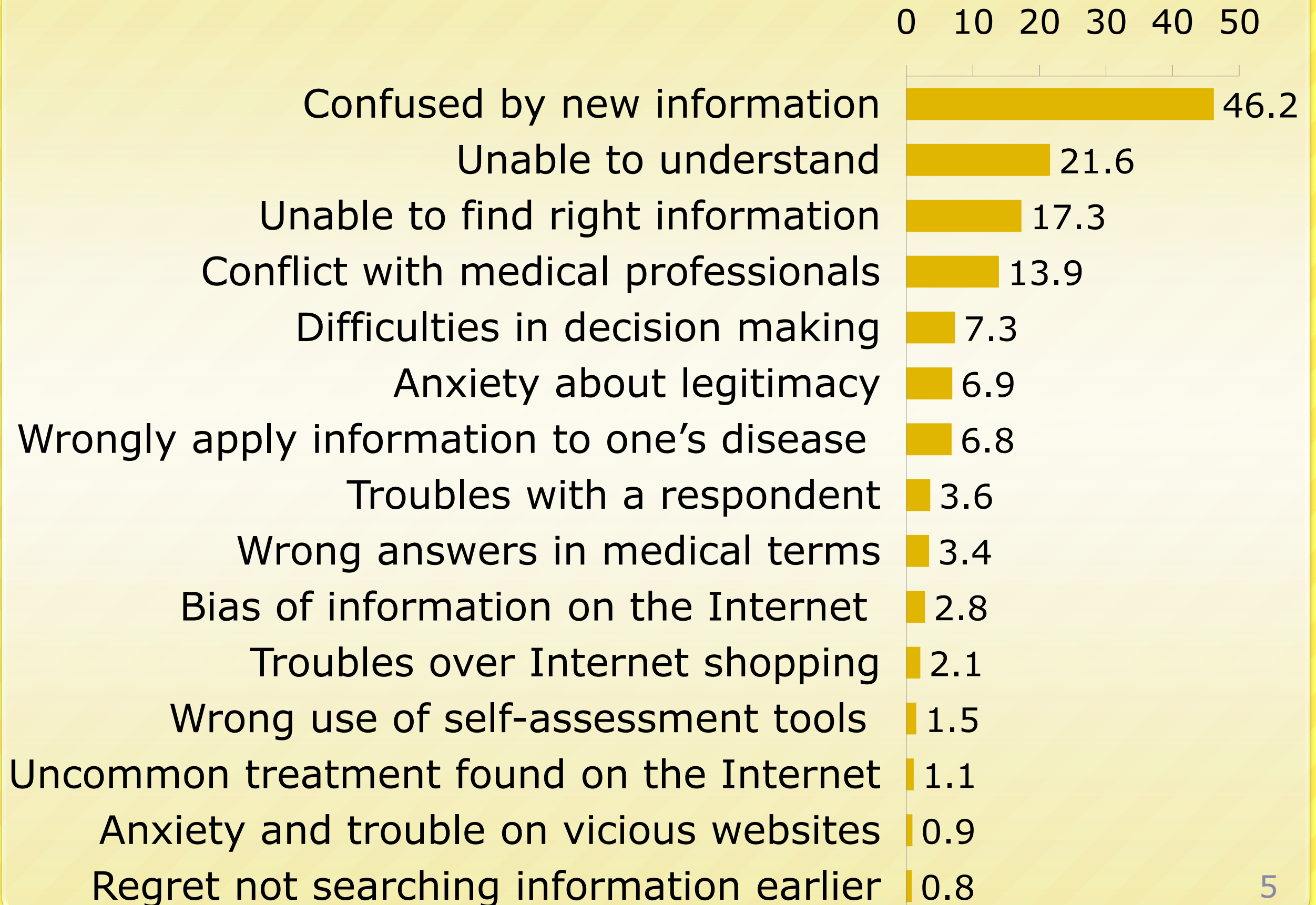
Method

- Since these websites have more than 0.1 million questions, we especially focused on questions which came up **after a questioner searched or looked at health issues on the Internet** as the second source.
- We searched the **questions** which contain **"Internet," "web," "site," "page," "HP",** or **"BBS"** under the category Conditions & Diseases of Health.
- Among these questions, we picked up some cases with which the questioner seemed to be **troubled or confused by searching or asking questions on the Internet.**
- We analyzed when and how the **problem** had happened and what kind of **answers** had been **evaluated high.**

Results

- The most frequently happened problem was that users had been **confused by new information** (Figure1).
- Some people were confused because of discrepancies in different information sources, including their doctor's comments.
- Most of them seem **not** to have had **enough time to discuss their issues** with their doctors or the other health professionals, and therefore, they went onto the Internet for the other credible sources.
- Another cause of user's confusion is **a lack of legitimate websites written in Japanese**. Commercial websites come up first rather than academic ones when people search health issues on the Internet. The fact shows inadequate awareness of Japanese health professionals about the **health communication** which is aimed at each level of health literacy.

Figure 1 Problems by searching or asking questions on the Internet (%)



Discussion

- Adequate information supply by medical experts is needed. Moreover, an **improvement of health literacy** of citizens and a **supportive environment**, which is designed to utilize **citizens' experiences and knowledge**, are necessary.
- **Web2.0-based Q&A sites** seem to be **effective**. Analyzing these questions and answers makes it clear that what kinds of **information** were **needed** and what kinds of **answers** a questioner gained.
- Therefore, we are **making a list of sample cases** which shows troubles over information on the Internet, in order to **help people** in all levels of health literacy.
- Items of the list contain **when** people used the Internet, the **issues** which arose after using the Internet and some good sample **answers** (**Table 1**).

Table 1 Sample cases of troubles caused by information on the Internet

When the Internet used	Issues after using the Internet	Good sample answers
After a periodic medical examination	Still unable to understand the result of the examination after searching on the Internet	<p>Explain the result, especially focused on the questioner's age, symptoms and anxieties.</p>
After noticing symptoms	Do not know if one's symptom can be applied to the one on the Internet, if one should go to see a doctor and which hospital one should go	<p>Provide more details of the disease shown on the Internet, explain a risk to diagnose one's symptoms by using only the Internet source, show an importance of consulting a doctor and receiving an early treatment, talk about respondent's experiences of the disease and how to manage it</p>
After a diagnosis stated	Unable to find website designed to provide the information to accept diseases	<p>Link to a website of a patient group or a patient's diary of a struggle against the disease</p>
After a medical treatment shown	A doctor's treatment and an Internet-recommended treatment are different, and do not know which treatment is better	<p>Give an explanation about the case on the Internet, point out the inadequate explanation by questioner's doctor, recommend to consult the doctor more precisely and to ask questioner's family to stay in the consultation, give a respondent's story to choose a treatment</p>
After a medical treatment started	Do not know if the response to a family member found on the Internet is right	<p>Support the response by respondent's experiences</p>

Conclusion

- We found that the people post questions in order to obtain the information about their health issues from various sources and the **validation of the information** provided by not only experts but also those who have **similar experiences**.
- As well as providing more legitimate information, we should focus on establishing a **supportive environment for Web2.0** where those who have similar experiences participate and should find a **role of experts** on the environment.
- We are planning to develop a method to **improve health literacy of patients and citizens by utilizing Web2.0**, which we believe that shows a direction of Nursing Informatics as **Consumer Health Informatics**.

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