The aim of the study is to understand how individual concepts, ideas, values and beliefs related to Influenza A, H1N1 (swine flu) were formed, shared, perceived and transmitted in a collectivist society such as Turkey in a short enough time that their effects were believed to be considerably and frighteningly widespread. Using questions developed from a social representations perspective, 140 people were interviewed in November 2009. The findings revealed that there exists a consensus about the threat posed by the pandemic Influenza A. That is, most participants made it clear that their way of living has shifted radically since the pandemic broke out. However, they did not have any desire to be vaccinated, mainly because of the politically powerful prime minister’s attitude against it. Religious beliefs did not have a particular effect on the behaviour of participants towards this disease, even though it is named after a notorious animal for the Islamic people. Participants were observed to have contrasting attitudes towards H1N1 Influenza A. While they did not perceive it as a particularly widespread disease, they believed it to be a fatal disease that could deeply affect their health. The collectivist cultural factors caused a so-called unrealistically pessimistic faith to supersede an unrealistically optimistic faith. Therefore, while the physical reality about health was structured at the social-individual level, the transformation (social representations) of the disease served to sustain and defend the main cultural characteristics of Turkish society as a whole.

**Key words:** H1N1 Influenza A, swine flu, social representation, collectivism, Turkey

### Introduction

H1N1 Influenza A (swine flu) broke out unexpectedly and soon became a vital health issue not only in Turkey but also in the rest of the world. Most members of society and administrative bodies of the government handled this specific disease as a political, economic and psychological issue rather than as a medical issue, whereas individuals believed that they faced rapidly spreading health problems.
In academic circles, it seemed that the analysis of this disease and any effort to find a solution for the social problems associated with it should be a matter of not just medicine but also the social sciences. In particular, terms and approaches from the disciplines of sociology and psychology were strongly needed. Producing information about H1N1 Influenza A would, it was believed, help widen our understanding of the disease in both the medical and social sciences fields.

As the disease spread rapidly, it was assumed that two different representations of it appeared in the public mind. The first, which was the official one, was concerned with the discourses and actions of the medical and governmental authorities, whereas the second, the unofficial one, was constituted on the perceptions of ordinary people. While the first included, for instance, some of the precautions announced and efforts implemented by the government to cope with the disease, the second consisted of the impression made by people based on the first representation. The first pointed to a physical phenomenon, whereas the second was a socio-individual one.

To understand how these two representations were interrelated in a collectivist society such as Turkey, a survey was conducted by the authors during November 2009, when the medical outcomes and the threat of pandemic Influenza H1N1 A reached their peak, and while rumours and stories about the disease simultaneously escalated very quickly.

Fighting against any disease or finding a solution to a social problem is in fact related to knowing how members of a society perceive it. In many contexts, the way in which a disease is perceived or understood by people may have a much more important impact than the disease itself and may be more dangerous to the life of a society.

In the first part of this study, emphasis is placed on a theoretical discussion of social representations (SRs). Some informative and interesting findings obtained on the basis of our empirical research are presented in the second part.

The theory of social representation

Social representation theory (SRT) was created and developed by a French thinker, Moscovici, in the 1960s and became one of the mainstream theories in the discipline of social psychology. In historical terms, SRT is considered to have arisen from Durkheim’s well-known concept of “collective representations”. Within conventional sociology, SRT is parallel with theories of social constructionism and symbolic interactionism. The first theory was mainly developed along the lines of Weberian insights, whereas the latter developed in tandem with the fascinating works of George Simmel.
and Herbert Blumer. All of these authors in general tried to understand how ordinary people built a social reality from the everyday practices in which they were involved. The concept of social reality is of a vital importance within the epistemological approaches of these theorists.

Moscovici (1973) defined SRs as a multifaceted concept focusing on systems of values, ideas, images and practices that have a two-fold function: 1) establishment of an order that enables individuals to orient themselves and 2) facilitate communication among members of a community through codes used to name and classify unambiguously various aspects of their world. In this sense, the concept of SRs refers to the interpretations that we all use in everyday life, in groups, in the media and in public debates to give meaning to what we experience. In other words, SRs are forms of common-sense knowledge (Moscovici, 1981, 1984) that refers to what people think they know of social objects or situations (Stewart and Lacassagne, 2005) or communicated bodies of knowledge that are shared to a greater or lesser extent among various subgroups within a society (Farr and Moscovici, 1984). They include publicly elaborated arguments concerning issues of central importance to society (Billig, 1996; Joffé, 2003). SRs thus reflect socially elaborated ways of thinking about and discussing an issue (Abric, 1993; Wagner, Valencia and Elejabarrieta, 1996) and serve as future guidelines for people’s communication and behaviour (Moscovici, 1963).

Abric (1996) similarly defines SRs as a bundle of organised judgments, attitudes and information with a hierarchical structure, which a social group creates with respect to a social object or situation, while Wagner et al. (1999) view them as collective elaborations of a social object or situation which are relevant for a social group. SRs are learned and negotiated through the interactions with group members; and as such they are likely to vary both between and within societies (Bergman, 1999; Farr, 1990; Moscovici and Perez, 1997).

SRs are also explained by means of “anchoring” and “objectification” (Moscovici, 1984; Roland-Lévy, 2001). Anchoring is the process by which new knowledge and ideas are adopted by a social group. Objectification refers to the process by which abstract ideas or concepts achieve a concrete form, whether as objects or images. SRs also reflect the legitimisation of different knowledge systems, the possibilities for resistance (Howarth, 2006) and an examination of work and lifestyle (Negura and Deslauriers, 2009). SRs have some practical functions that may help protect and maintain social order.

In short, SRT has been advanced as a possible framework for investigating the process of transforming individual-level perceptions of social
events into societal-level perceptions. It is “particularly appropriate when the topic of study involves multiple social perspectives, provides challenges, difficulties and conflicts due to a change and features the communication of ideas in the public arena” (Pearce, Moscardo and Ross, 1996: 59).

To account for the social and cultural factors that underpin the rising pandemic H1N1 Influenza A, SRT constitutes the conceptual framework of this study in such a way that this research focuses on both societal and individual presentations and attempts to compare them with each other. Therefore, it might be said that the main objective of our research is to comprehend how individual values and beliefs concerning H1N1 Influenza A are formed, shared and transmitted within a collectivist society such as Turkey in which various cultural contradictions as well as many different ways of evaluating social reality are clearly in operation. To achieve this objective, questions drawn primarily from this theoretical paradigm are employed in the interviews. In addition, in doing this, it is possible to see in practice the validity of the main assumptions of SRT.

Method

Some variations in the SRs of H1N1 Influenza A across sex, age and occupational groups were examined. The participants were selected from different groups that were living in quite different social and economic circumstances.

Two of the most frequently used methods for investigating SRs were employed (Goodwin et al., 2003), namely, free association tasks and interviews. By allowing respondents to identify their own significant categories (Doise, 1993; Doise, Clemence and Lorenzi-Cioldi, 1993; Verges, 1987; Zani, 1993), free associations allowed the interviewer to tap further the important implicit, semiconscious or unconscious meanings associated with H1N1 Influenza A (Marková, 1992). Semi-structured interviews allow for the analysis of so-called “naive theories” among respondents and the exploration of the deeper levels of consensus and conflict that might underpin representations (Gaskell, 1994; Sotirakopoulou and Breakwell, 1992).

Participants

The sample group was composed of 140 people drawn from households living in Sivas, a medium-sized city in Turkey. A snowball sampling technique was employed considering that it would be difficult to find respondents willing to participate in research that had to be completed in a very short period of time. Each participant recommended other persons. Some families of university students were very helpful in reaching potential re-
spondents. The sample was not a representative one but included a sufficient number of participants to conceive of the role of SRs in coping with this particular disease. Thus, the size and location of the sample group were less significant than in studies aimed at generalisability.

Table 2 presents some details on the participants according to sex, age and occupation.

**Procedures**

As noted earlier, participants went through two procedures, namely, free associations and interviews, and responded individually to the questions of the interviewer at a location convenient for a confidential interview. Items and procedures were piloted using sub-samples of 12 respondents before data collection.

For the task of free association, respondents were instructed to write “everything that comes into your mind when I say the word H1N1 Influenza A (swine flu)” (Doise, Clemence and Lorenzi-Cioldi, 1993). Respondents were accordingly asked to write as many responses as possible and be unrestricted in their responses. The 140 participants in the study produced a total of 398 responses. Two judges examined a full and translated list of these associations and worked independently to aggregate semantically similar words to identify the most frequently listed words in the responses to be used in analysis (Kappa for inter-rater agreement = 0.90).

For the analysis of the interviews, the participants first completed a short demographic questionnaire on age, sex, level of education and occupation. They were then asked a total of 16 questions taken primarily from the earlier works of Goodwin et al. (2003, 2009) on a similar subject. Besides these questions, some representative questions regarding the representations of illness, which are frequently asked in social studies and in other broader social psychological investigations, were added to the form. The interview also included some questions that may be specific to the culture of Turkey (see Appendix A).

Questions were grouped into four categories. These categories consisted of the features and origin of H1N1 Influenza A (C1); the prevalence and risk groups associated with H1N1 Influenza A (C2); vaccination against H1N1 Influenza A (C3); and the social-psychological effects of H1N1 Influenza A and effectiveness of the government in the fight against it (C4).

**Results**

Table 1 presents the relative frequency of the 15 most frequent free associations with the word “swine flu” (i.e., H1N1 Influenza A).
Table 1. Free associations with the word “swine flu” (H1N1 Influenza A)

<table>
<thead>
<tr>
<th>Association</th>
<th>Raw total responses</th>
<th>Percentage of participants making association (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatal disease</td>
<td>60</td>
<td>43</td>
</tr>
<tr>
<td>Death</td>
<td>48</td>
<td>34</td>
</tr>
<tr>
<td>Anxiety</td>
<td>43</td>
<td>31</td>
</tr>
<tr>
<td>Pandemic disease</td>
<td>42</td>
<td>30</td>
</tr>
<tr>
<td>Vaccine</td>
<td>33</td>
<td>24</td>
</tr>
<tr>
<td>Flu</td>
<td>32</td>
<td>23</td>
</tr>
<tr>
<td>Virus</td>
<td>31</td>
<td>12</td>
</tr>
<tr>
<td>Biological weapon</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Swine</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Ignorance</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Fever</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Exaggeration</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Serious flu</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Nonsense</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total number of associations</strong></td>
<td><strong>398</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The frequency (or percentage) of the words evoked by participants during free association, according to their sex, age and occupation groups, were to a considerable extent relatively similar. This situation indicates that similar representations are shared across society. The most commonly associated words, among all participants, were fatal disease, death, anxiety and pandemic disease, all of which reflect a pessimistic view of the infection.

It is clear that H1N1 Influenza A is perceived as a fatal disease that creates anxiety and brings up the idea of death.

It should also be noted that there was no significant association related with the word “swine”, which is understood among Islamic believers as a forbidden and inedible animal. This was a surprising result and might be explained by the fact that the focus of the respondents was on the disease itself rather than on its name and its associations. This also boosted the idea that the people generally handle a real threat in a realistic way when they become involved in an actual trouble, in this case a fatal virus. That is, they concerned themselves with the disease itself, not the name of it. It can be noted that they were aware of the distinction between the name of an animal and the serious health risk that they were facing.

Some of the interview results are presented in the table below.
Table 2. Interview analysis

<table>
<thead>
<tr>
<th>Features and origin (C1)</th>
<th>T</th>
<th>Sex</th>
<th>Age</th>
<th>Occupation1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Influenza A, H1N1</strong></td>
<td></td>
<td>F</td>
<td>M</td>
<td>χ²</td>
</tr>
<tr>
<td>n</td>
<td>140</td>
<td>78</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td><strong>Features and origin (C1)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1N1 is a fatal disease.</td>
<td>51</td>
<td>53</td>
<td>48</td>
<td>39</td>
</tr>
<tr>
<td>H1N1 is a common influenza.</td>
<td>32</td>
<td>23</td>
<td>44</td>
<td>33</td>
</tr>
<tr>
<td>I first heard it from the media.</td>
<td>99</td>
<td>100</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>It is a disease originating from Mexico.</td>
<td>67</td>
<td>65</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>It has symptoms similar to those of the seasonal flu.</td>
<td>98</td>
<td>97</td>
<td>100</td>
<td>96</td>
</tr>
<tr>
<td>It can be transmitted in ways similar to the seasonal flu.</td>
<td>91</td>
<td>95</td>
<td>86</td>
<td>91</td>
</tr>
<tr>
<td>It is more dangerous than the seasonal flu.</td>
<td>71</td>
<td>76</td>
<td>65</td>
<td>61</td>
</tr>
<tr>
<td>It is not different from the seasonal flu.</td>
<td>29</td>
<td>24</td>
<td>36</td>
<td>39</td>
</tr>
<tr>
<td><strong>Risk groups and prevalence (C2)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td>38</td>
<td>45</td>
<td>29</td>
<td>3.68**</td>
</tr>
<tr>
<td>Elderly people</td>
<td>26</td>
<td>30</td>
<td>23</td>
<td>0</td>
</tr>
<tr>
<td>People with chronic diseases and weak immune systems</td>
<td>38</td>
<td>45</td>
<td>29</td>
<td>3.68**</td>
</tr>
<tr>
<td>Health personnel</td>
<td>29</td>
<td>27</td>
<td>31</td>
<td>23</td>
</tr>
<tr>
<td>Those who have been in a crowded environment</td>
<td>29</td>
<td>31</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>Everybody</td>
<td>7</td>
<td>5</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Pregnant women</td>
<td>8</td>
<td>9</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Those paying little attention to hygiene</td>
<td>9</td>
<td>10</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>H1N1 Influenza A is likely to be transmitted to me.</td>
<td>50</td>
<td>51</td>
<td>50</td>
<td>59</td>
</tr>
<tr>
<td>H1N1 Influenza A is not likely to be transmitted to me.</td>
<td>25</td>
<td>26</td>
<td>24</td>
<td>13</td>
</tr>
<tr>
<td>In total, 1000 people in Turkey carry the H1N1 virus.</td>
<td>74</td>
<td>82</td>
<td>74</td>
<td>78</td>
</tr>
<tr>
<td>In total, 100 people are likely to die this year in Turkey because of H1N1 Influenza A.</td>
<td>30</td>
<td>42</td>
<td>18</td>
<td>18.42*</td>
</tr>
<tr>
<td>In total, 1000 people are likely to die this year in Turkey because of H1N1 Influenza A.</td>
<td>47</td>
<td>37</td>
<td>58</td>
<td>19.13*</td>
</tr>
<tr>
<td>In total, 10,000 people are likely to die this year in the world because of H1N1 Influenza A.</td>
<td>41</td>
<td>54</td>
<td>27</td>
<td>15.87**</td>
</tr>
<tr>
<td>In total, 5,000,000 people are likely to die this year in the world because of H1N1 Influenza A.</td>
<td>38</td>
<td>32</td>
<td>43</td>
<td>18.28**</td>
</tr>
<tr>
<td>I do not know anybody who is infected with the H1N1 Influenza A virus.</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>
### Influenza A, H1N1

<table>
<thead>
<tr>
<th></th>
<th>T</th>
<th>Sex</th>
<th>Age</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>M</td>
<td>18-24</td>
<td>25-60</td>
</tr>
<tr>
<td>n</td>
<td>140</td>
<td>78</td>
<td>57</td>
<td>73</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
</tbody>
</table>

### Vaccination (C3)

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Useful</td>
<td>15</td>
<td>8</td>
<td>25</td>
<td>7.38*</td>
<td>14</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>Dangerous</td>
<td>41</td>
<td>55</td>
<td>23</td>
<td>15.16*</td>
<td>49</td>
<td>32</td>
<td>60</td>
</tr>
<tr>
<td>Useless</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>14</td>
<td>9</td>
<td>20</td>
<td>13</td>
</tr>
</tbody>
</table>

### Social psychological effects and the role of the government (C4)

- **Hand-washing**
  - 37 48 23 10.10* 44 34 20 38 24 0 41 46 9.95*

- **Object hygiene**
  - 51 67 31 17.93* 51 55 20 38 35 9 69 51 13.66*

- **Avoidance of crowds**
  - 38 47 26 6.87* 37 41 20 38 29 18 52 37

- **Dietary habits**
  - 33 45 18 11.53* 42 27 20 21 18 18 38 42

- **Masks**
  - 5 5 5 7 4 0 4 6 0 3 7

- **Anti-bacterial products**
  - 5 5 5 5 6 0 4 12 0 0 7

- **Avoidance of travelling**
  - 1 3 0 2 1 0 0 0 0 0 3 2

- **No change has been made in our lifestyle**
  - 24 7 47 31.06* 23 26 20 25 48 55 3 22 18.66**

*Indicates significant differences between opinions of the sample group with respect to their sex, age and occupation using Pearson chi-square statistic, with * = p<.01 and ** = p<.05. Insignificant relationships are excluded.
Features and origin (C1)

In this category, there were five questions. The responses were analysed along the dimensions of which type of disease H1N1 Influenza A is, how it (and its origins) is learnt about, ways of transmission and comparison with the seasonal flu.

Approximately half of participants perceived H1N1 Influenza A as a fatal disease. The participants aged between 61 and 77 years old ($\chi^2(2)=9.75$, $p<.01$) and housewives ($\chi^2(4)=9.86$, $p<.05$) were particularly prone to see it in this light. This finding suggests that women are more open to expressing feelings of despair, incapacity and vulnerability and to sharing their personal lives. The elderly, however, are more sensitive to the possibility of disease because of their increasing anxiety over death (Madnawat and Kachhawa, 2007).

The groups that are least likely to perceive H1N1 Influenza A as a fatal disease, in contrast, are university students and participants aged between 18 and 24 years old. In tandem with this finding, only one in three of all participants defined H1N1 Influenza A as a form of the common flu. The male participants had the highest ratio of participants who viewed H1N1 Influenza A as such, while the lowest ratio occurred in the group aged between 61 and 77 years old. Regarding perceptions of H1N1 Influenza A as a fatal disease versus as a form of the common flu, only a few participants (16%, not shown in the table) perceived H1N1 Influenza A virus as a biological weapon that had been developed by some interest groups for economic profit.

Almost all participants stated that they gained their initial information about H1N1 Influenza A via the mass media. Television, above all, was the primary source of information on this subject for participants.

Mexico was regarded by most of the participants as the origin location of H1N1 Influenza A. The elderly ($\chi^2(2)=23.56$, $p<.05$) and students ($\chi^2(4)=19.89$, $p<.05$) were more decisive on this than others. Some participants considered the United States to have first introduced H1N1 Influenza A, while others stated that they had no opinion about this subject.

H1N1 Influenza A was perceived as a disease with symptoms similar to those of the seasonal flu by most participants, especially by people with lower income ($\chi^2(4)=17.74$, $p<.01$), and it was seen to be transmitted in similar ways to the seasonal flu. Nevertheless, Influenza A, H1N1 is defined by some participants as a more dangerous disease than the seasonal flu, particularly by housewives and participants aged between 61 and 77 years old. Almost a third of the participants, however, stated that H1N1 Influenza A is no different from the seasonal flu; this tendency is affected
by occupation ($\chi^2(4)=9.97, p<.01$). Most participants seemed to link H1N1 Influenza A with the seasonal flu in no uncertain terms. Therefore, they can be said to display biases (e.g., they may be more cautious in their relationships) that resemble their biases towards patients with the seasonal flu.

**Risk groups and prevalence (C2)**

This section had six questions, including questions on the risk of catching H1N1 Influenza A, the probability of its transmission to the participants themselves, the estimation of the number of people infected with the H1N1 Influenza A virus in Turkey, the number of deaths recorded in Turkey and the world as a result of H1N1 Influenza A and whether the participants knew anyone who was infected with it.

Children, people with chronic diseases or weaker immune systems, people who have been in a crowded environment (based on their occupations, $\chi^2(4)=9.24, p<.05$), health personnel and the elderly are considered as groups at particular risk. Female participants were more decisive on this issue than male participants ($\chi^2(1)=3.68, p<.05$). However, quite a few participants regarded everybody, pregnant women and those who pay little attention to hygiene, as risk groups. One quarter of the participants regarded the elderly as the group most at risk, although participants aged between 61 and 77 did not consider themselves at risk. These findings are not in line with the statements from the World Health Organization (WHO) and the Turkish Ministry of Health (THM), which both declared that while the elderly were not at particular risk, young and middle-aged people, children and those in generally poor health were at risk. It seems that the groups at risk were perceived inaccurately by participants.

Half of the sample group stated that they thought they would probably catch H1N1 Influenza A. The participants who thought that they had the highest risk of catching H1N1 Influenza A included senior bureaucrats, self-employed professionals and merchants. The lowest perceived risk was marked by those aged between 61 and 77 years old ($\chi^2(2)=8.19, p<.01$). Similarly, the group who thought that they ran the lowest risk of catching H1N1 Influenza A included those aged between 61 and 77 years old ($\chi^2(2)=16.27, p<.01$); moreover, this participant group varied with respect to occupation ($\chi^2(4)=16.89, p<.01$). One in four of the other participants pointed out that they probably would not catch H1N1 Influenza A, while the same proportion of participants agreed that they had the same risk as other people.

When participants were asked to estimate how many people had been infected with H1N1 Influenza A in Turkey, most of them asserted that about
1000 people carried the virus. Approximately half of the participants who chose to estimate the number of people to have died in Turkey that year (88 people, 63% of all participants answered this question), estimated that about 1000 people would die from H1N1 Influenza A in Turkey. The opinions of the sample group varied by sex ($\chi^2(1)=19.13$, $p<.01$), age ($\chi^2(2)=28.88$, $p<.05$) and occupation ($\chi^2=54.61$, $p<.01$). One third of the participants thought that 100 people would die. Accordingly, this view is varied with respect to sex ($\chi^2(1)=18.42$, $p<.01$), age ($\chi^2(2)=32.27$, $p<.05$) and occupation ($\chi^2(4)=54.26$, $p<.01$). A very low proportion of participants stated that about 10,000 or 5,000,000 people would die in Turkey from the virus.

When participants were asked to estimate the total number of people throughout the world who would die from H1N1 Influenza A, 41% and 38% of the participants who choose to answer (74 people or 54% of all participants answered this question) estimated the number to be around 10,000 and 5,000,000, respectively. Their opinions varied according to sex ($\chi^2(1)=15.87$; $\chi^2(1)=18.28$, $p<.05$), age ($\chi^2(2)=32.24$; $\chi^2(2)=31.08$, $p<.01$) and occupation ($\chi^2(4)=59.46$; $\chi^2(4)=56.34$, $p<.01$). A very low proportion of participants estimated that 15 million altogether would die from this disease throughout the world.

All participants stated that they did not personally know anyone who had been infected with the virus.

**Vaccination (C3)**

In this category, there were three questions. The responses concerned participant perceptions about the vaccination as useful, useless or harmful as well as their thoughts on the vaccination of themselves and other people.

A very low proportion of participants considered the H1N1 Influenza A vaccine to be useful. Approximately half of sample group considered the vaccine harmful or useless. Most of the latter participants were male respondents ($\chi^2(1)=7.38$, $p<.01$; $\chi^2(1)=15.16$, $p<.01$). The group that considered the vaccine to be most useful included senior bureaucrats, self-employed professionals and merchants ($\chi^2(4)=9.13$, $p<.05$). The participants who considered the H1N1 Influenza A vaccine to be most harmful included participants aged between 61 and 77 years old, housewives and women ($\chi^2(4)=13.72$, $p<.01$). Only 12% of the entire sampling group, incidentally, believed that the vaccine had been tested in Turkey.

A high proportion of participants had not contemplated vaccination for themselves; in particular, all participants aged between 61 and 77 years old stated that they would not be vaccinated. Nearly half of our sample group stated that people in the risk groups should be vaccinated; 10% of them,
Indeed, said that everybody should be vaccinated, whereas 22% thought that nobody should be vaccinated. Female participants were much more decisive on this issue than males ($\chi^2(1)=9.13$, $p<.01$).

**Social psychological effects and the role of the government (C4)**

Two questions were asked in this section regarding the effectiveness of the government in the fight against the virus, including whether H1N1 Influenza A changed the lifestyles of participants and participants’ view about the Turkish government’s fight against the virus.

A great majority of participants stated that the outbreak of H1N1 Influenza A made them change their lives and habits. Women ($\chi^2(1)=31.00$, $p<.01$) and housewives ($\chi^2(4)=18.66$, $p<.01$), notably, stated that they had significantly changed their normal habits. However, male participants ($\chi^2(1)=31.06$, $p<.01$), civil servants, military officers, teachers, owners of small businesses, senior bureaucrats, self-employed professionals and merchants stated that, to a very great extent, no change had occurred in their lives or habits ($\chi^2(4)=18.66$, $p<.01$).

The most commonly observed changes involved hand-washing, placing more importance on general hygiene, avoidance of crowded environments, changes in dietary habits and avoidance of physical contact with other people. Female participants were much careful regarding all of these activities than males ($\chi^2(1)=10.10; 17.93; 6.87; 11.53$, $p<.01$), while the views of female participants were affected by the kind of occupation ($\chi^2(4)=9.95; 13.66$, $p<.01$). Nonetheless, some participants believed that there was an increase in the use of masks, anti-bacterial products and antiseptic towels. The participants stressed that there was no significant change in their lives regarding public transport and travel.

We argue that the fact that Influenza H1N1 A signified fatal disease and death to the participants and created anxiety caused these changes in their behaviour.

**Public debate and social representations**

The research has revealed two valuable results that are closely related in one respect. The first is that the sample group perceived this particular disease through the formation of SRs, and the second is that they tried to cope with it through a familiar, collectivist approach. These two points require additional explanation.

From the interview analysis (C2), it appeared that most of the participants (47%) estimated the number of deaths in Turkey from this virus to range between 100 and 1,000. The actual number of deaths up to the month
that the data were obtained was 93 in Turkey and 6,770 worldwide. The estimation of participants would seem, then, to be significantly consistent with the actual numbers. In this case, it appears that the participants believe that H1N1 Influenza A is fatal, even though the number of deaths was quite small. Clearly, these two points seem to be in contradiction with one another. The opinion of the sampled participants on this issue may thus have been affected by some other factors. These factors might be political factors, cultural patterns, values or faith, the media or economic factors. These factors are also effective in the formation of the official view. In other words, the official view represented by the actual number of the deaths is modified on the basis of these common effective factors to transform into the unofficial view of actual individuals. Table 3 summarises the formation of SRs of H1N1 Influenza A.

<table>
<thead>
<tr>
<th>Reality and/or physical reality</th>
<th>Effecting factors</th>
<th>Individually and/or socially perceived facts (SRs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Few deaths</td>
<td>Political</td>
<td>Too many deaths</td>
</tr>
<tr>
<td>Vaccination</td>
<td>Cultural</td>
<td>No vaccination</td>
</tr>
<tr>
<td>Advice of local medical</td>
<td>Media</td>
<td>Nothing happens to me</td>
</tr>
<tr>
<td>authorities</td>
<td>Values</td>
<td>Others must be vaccinated</td>
</tr>
<tr>
<td>Prime Minister’s attitudes</td>
<td>Economic</td>
<td>Fake disease</td>
</tr>
<tr>
<td>Health authorities’ advice</td>
<td>Faith</td>
<td>Individual discourses</td>
</tr>
<tr>
<td>Official discourse</td>
<td></td>
<td>Fatal disease</td>
</tr>
<tr>
<td>Fatal disease</td>
<td></td>
<td>Very dangerous for participants but not for others</td>
</tr>
<tr>
<td>Not known anyone infected</td>
<td></td>
<td>Collective behaviour</td>
</tr>
<tr>
<td>Individual behaviour</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As pointed out earlier, the official view is mainly comprised of health statistics that are periodically announced by the WHO, including attitudes towards vaccination, advice from governmental and international medical authorities, and common impressions of H1N1 Influenza A that originated from the fact that this particular virus would cause many deaths in a very short period of time. A closer look at some of the news and media statements may help to unveil some features of the official view.

WHO officials made statements in the media on the possibility of a major pandemic (Haber Servisi, 22.11.2009). In tandem with this informa-
tion, the Turkish Health Ministry (THM) announced that the country as a whole was in great danger of a worldwide epidemic and that thousands and thousands of people were expected to die unless some serious, urgent precautions were undertaken (Haber Servisi, 23.11.2009; Anadolu Ajansı, 24.11.2009). Vaccination was the primary known major precaution to prevent the disease and was highly recommended by WHO officials. It could be for this reason that from the point of view of the Health Minister of Turkey, the first objective was to import a huge amount of vaccines from abroad and vaccinate almost everyone in the country. He also said that whoever did not want to get vaccinated would be considered to have committed a crime (Tekmanlı, 24.10.2009), since such refusal would result in a threat to public health rather than the individual themselves. The idea of vaccinating everyone in the country found support even from the Turkish Medical Association (Anadolu Ajansı, 22.12.2009), which is the representative body of nearly all Turkish medical doctors. To mould public opinion in favour of vaccination, political authorities used TV broadcasting and reports on national and local news in newspapers as their major instruments. Almost the entire sample, therefore, had obtained their initial information about H1N1 Influenza A via the media. Social opinions were formed based more on considering what the media said about the disease than the actual number of deaths or what WHO and local officials said. They paid more attention to what was said by those whom they trusted rather than to what was happening around them.

However, Osman Durmuş, who is the spokesman of the opposition Nationalist Movement Party (Milliyetçi Hareket Partisi) on health issues, took a very rigid stand against the Health Minister, insisting that the regular flu was more dangerous than swine flu and that the government had wasted a large amount of the money (nearly 500 million US dollars) on vaccines (Demirkan, 30.11.2009). The Turkish public witnessed a vigorous debate between these two opinion-makers for a couple of months. Most sympathisers of the governmental party supported the Health Minister’s view, while the rest of society seemed to believe the spokesman of the opposition party. At the end of this debate, the vast majority of the Turkish public refused to get vaccinated, and even the Prime Minister himself felt it necessary to announce his decision to refuse vaccination (Haber Servisi, 19.11.2009). Following the Prime Minister’s final decision, very few people showed a desire for vaccination, even though the disease caused changes in various daily behaviours (C3) (such as paying more attention to hygiene, as shown in C4). In the end, a worldwide pandemic, which was clearly a health issue, was transformed into a nationwide political issue. A widespread debate
among intellectuals about the fatality and seriousness of the disease prevailed for some time. It may be suggested that this debate deeply divided all of society into two diverging strata; the first was in favour of effective precautions, while the second was not (C3). The first was generally represented by the government and its proponents, while the second gained support from the rest of society.

Official discourses are formed within a framework of the urgent precautions taken by either the central government or some local administrative bodies, such as municipalities. The government declared a compulsory short holiday for some primary schools in the provinces in which the number of cases of the disease were relatively higher than in others (Koyuncu, 13.11.2009). A great number of schools (Haber Servisi, 14.11.2009) and mass transportation vehicles (DHA, 19.11.2009), such as public buses, minibuses and trains, were meticulously cleaned, sterilised and disinfected. News and useful information regarding the ways to protect family members from the disease were published in newspapers (Anadolu Ajansi, 10.11.2009; Yildiz, 3.11.2009; Anadolu Ajansi, 19.10.2009; Haber Servisi, 22.07.2009). Authorities recommended that individuals use a mask in their daily activities, but this recommendation drove the prices of masks up three-fold (Haber Servisi, 17.11.2009). The total cost of the disease was also calculated at nearly 4 billion USD according to some public figures (Erdil, 11.11.2009). One psychiatrist made a statement that swine flu was also dangerous for mental health and gave some practical advice for protecting people’s mental health (Yildiz, 1.12.2009). According to him, overprotection might lead to a kind of obsession, and the situation might be worse among certain individuals, especially children who may want to be extremely careful about cleaning and hygiene (Anadolu Ajansi, 30.12.2009). Some asserted that swine flu even affected the sexual lives of most people. Some couples avoided having sex through fear that they would contaminate each other (Bilgin, 06.12.2009). A well-known columnist stated that there was great distrust towards THM, which announced contradictory information on a daily basis, such as information on the death tolls, the number of patients and the seriousness of the disease (Turan, 16.11.2009).

Cultural patterns, various values and faith, all of which were and are embraced by the majority of Turkish people, had their roles in the representation process. For example, the Turkish Veterinary Medical Association made an announcement that there was no contamination risk during a religious Festival of Sacrifice (Haber Servisi, 24.11.2009) that was celebrated by the vast majority of the population. During the days of the festival, Islamic believers visit their relatives and, if they are rich enough, help poor
people by donating food, especially meat and money. Another announce-
ment by the government was more interesting. The government guaranteed
that vaccines did not include any kind of lard (Ruhluel, 07.12.2009), such
information being vital for Islamic believers.

The economic aspect of the disease was one of the issues discussed
by political authorities. Some of them asserted that swine flu was simply
fabricated by giant medical corporations to make a profit by exploiting
people’s health fears throughout the world. The affluent nations of Europe
and the United States, for example, queued up at the doors of firms that
produced the vaccines to request millions of doses. The governments al-
located billions of US dollars from their budgets for these vaccines alone.
They also recommended many other health precautions that would entail
extra costs. Individuals, moreover, were deeply affected psychologically.
Simultaneously, the president of the European Council Health Department
pointed out that H1N1 Influenza A was a “fake pandemic” in a statement
to an English newspaper on 11 January 2010; the international drug com-
panies that presumably aimed to gain billions of dollars were responsible
for these rumours. However, according to Keiji Fukuda, who is the vice
chairman of the WHO, this statement did not reflect true facts. In his
own statement, he agreed with the view that it was a total irresponsibil-
ity to assert that H1N1 Influenza A was a fake pandemic because 13,000
people had already died in the world due to this disease (Haber Servisi,
16.01.2010).

All of the information given by officials about death tolls, vaccina-
tions, advice, the attitudes of politicians and the discourse produced by
health authorities affected the views of ordinary people. Together, these fac-
tors constituted the official view. The opinions of our sample group, which
represent the unofficial view, were revealed through our research as pre-
sented in previous sections. Some important results regarding the official
and unofficial views can be gleaned by considering both views together.

Discussion
The first finding of this research indicates that there is a considerable differ-
ence between the physical reality of health as described by authorities and
the reality perceived and interpreted at the social-individual level. In other
words, participants tried to develop behaviour to counteract the disease. As
shown in Table 3 and C3, officials said that vaccination was inevitable,
while people said that “nothing happens to me” and refused to vaccinate.
And they tended to believe that this pandemic was a fake one. They also
developed some kind of individual discourse, believing that this particular
pandemic had nothing to do with pigs and Islamic rules (FA) but rather was simply a fatal disease (C1, FA). In addition, they paid special attention to the cleaning habits of family members and the hygiene of their environments (C4). It might be suggested that the meaning of “real”, in regards to the disease, changed according to one’s own individual faith, values and cultural systems; moreover, even their political attitudes contributed greatly to their perceptions. Individuals were able to construct a reality within a defined cultural medium insofar as the sample group formed some SRs that in turn have served to protect and maintain the existing social order in which they live.

Most of the participants (74%) believed that the way the government responded to and fought against H1N1 Influenza A was inadequate (C4). They believed in particular that the government authorities had not given them sound and sufficient information. In this respect, there is a significant difference among occupational groups. Students believed this much more strongly than labourers, sales clerks and farmers. Similarly, younger participants highlighted the insufficiency of the government’s efforts much more strongly than the older groups. That is, the official view gained much more acceptance among older participants and participants with relatively little income. The main factor seems to be the educational background of participants. Those who were better educated found the activities of the government and opinion-makers insufficient in contrast to those who were less educated.

The second finding of this research is related to the collectivist characters of the sampled participants with respect to coping with the disease. Indeed, none of the participants personally knew anyone who had been infected with H1N1 Influenza A, but half of participants thought that they would catch it themselves (C2). In other words, even though most participants thought that only 1,000 people in a country with a population of 70 million were infected with and would die from H1N1 Influenza A (C2), they considered themselves to be among those 1,000 people. The participants assumed the H1N1 Influenza A virus was dangerous for themselves but not for others. Although most of the participants stated that they themselves would not be vaccinated, the proportion of participants who thought that other people should not be vaccinated was significantly low. The participants who did not consider vaccination applicable to themselves could easily find it applicable to others. As a result, we note that participants did not have an unrealistic optimistic belief that others were at a higher risk than themselves. Thus, every individual in the sample claimed to have tried harder than others to avoid the disease.
This point has been mentioned earlier in previous literature. Brown (1998), for example, suggested that societies in collectivist cultures find positive illusions, such as unrealistic optimistic beliefs, less appealing. The findings obtained from this study bear out this view. Many other studies have reported that most people in individualistic cultures are optimistic in that they believe themselves more likely than their fellow neighbours to experience positive events and less likely to experience negative events (Robertson, 1977), such as the risk of being personally afflicted by various diseases or health problems (Kirscht et al., 1966; McGee and Cairns, 1994; McKenna, Warburton and Winwood, 1993; Peterson and De Avila, 1995).

Conclusion
This study was conducted over a short period of time. It has, therefore, some limitations. The participating sample displayed conflicting attitudes towards H1N1 Influenza A. The cultural and individual anxieties were observed as significant precursors of the responses to the outbreak of the infection. The increase in individual anxieties over it caused more changes in individual habits and behaviours. Collectivist cultural factors, by means of SRs, are considered to have enabled an unrealistically pessimistic faith, which superseded the unrealistically optimistic faith previously held by participants.

APPENDIX A – Interview questions

The features and origin of H1N1 Influenza A
1. What do you generally think about H1N1 Influenza A?
2. How/where/from whom did you hear about H1N1 Influenza A?
3. In which country were the symptoms of H1N1 Influenza A first seen?
4. What do you think the symptoms are?
5. How do you think it can be transmitted?

Prevalence of and risk groups associated with H1N1 Influenza A
6. Who runs the biggest risk of contracting H1N1 Influenza A?
7. Do you think it is probable that it will be transmitted to you?
8. How many people do you think are infected with H1N1 Influenza A virus in Turkey?
9. How many people do you think will die from H1N1 Influenza A in Turkey this year?
10. How many people do you think will die from H1N1 Influenza A altogether this year?
11. Do you personally know anyone who has been infected with H1N1 Influenza A?
Social effects of H1N1 Influenza A and the role of the government
12. Are there any changes in your lifestyle or habits as a result of H1N1 Influenza A?
13. What do you generally think about the fight against H1N1 Influenza A?

H1N1 Influenza A vaccination
14. What do you think about vaccination against H1N1 Influenza A?
15. Would you consider being vaccinated?
16. Who do you think should be vaccinated?

REFERENCES


Društvene predodžbe gripe A, H1N1 (svinjske gripe)

Fatma GÜL CİRHİNLİOĞLU
Sveučilište Cumhuriyet, Filozofski fakultet, Odsjek za psihologiju, Sivas, Turska

Zafer CİRHİNLİOĞLU
Sveučilište Cumhuriyet, Filozofski fakultet, Odsjek za sociologiju, Sivas, Turska
cirhin@gmail.com

Cilj istraživanja je razumjeti kako su se pojedinačni koncepti, ideje, vrijednosti i vjerovanja vezani uz gripu A, H1N1 (svinjsku gripu), oblikovali, širili, perci-pirali i prenosili u kolektivističkom društvu kakvo je tursko u dovoljno kratkom vremenu da se za njihove učinke smatralo da su u velikoj mjeri i zastrašujuće rasprostranjeni. Intervjuirano je 140 osoba u studenom 2009., a korištena su pitanja postavljena iz perspektive društvenih predodžbi. Otkriveno je da postoji konsenzus o prijetnji koju predstavlja pandemjska gripa A. Odnosno, većina sudionika jasno je rekla da im se način života radikalno promijenio otkad je izbila pandemija. No, nisu se željeli cijepiti, ponajprije zbog politički utjecajnog stava premijera, koji je bio protiv cijepljenja. Religijska vjerovanja nisu imala posebnog učinka na ponašanje sudionika prema toj bolesti, iako je nazvana prema, za ljude islamske vjeroispovijesti, ozloglašenoj životinji. Primijećeno je da sudionici imaju suprotstavljene stavove prema gripi A, H1N1. Iako je ne smatraju osobito raširenom bolešću, vjeruju da je riječ o smrtonosnoj bolesti koja bi mogla jako utjecati na njihovo zdravlje. Kolektivistički kulturni čimbenici uzrokovali su da takožvano nerealno pesimistično vjerovanje prevlada nad nerealno optimističnim. Stoga, dok je fizička stvarnost zdravlja strukturirana na društveno-individualnoj razini, transformacija (društvene predodžbe) bolesti služila je očuvanju i obrani glavnih kulturnih osobina turskog društva u cjelini.

Ključne riječi: gripa A/ H1N1, svinjska gripa, društvena predodžba, kolektivizam, Turska