

Outline of Mental Health and Lifestyle Survey for FY 2012 Reported on 19 May 2014

1. Purpose

Based on the results of Mental Health and Lifestyle Survey for FY 2011¹, we have conducted Mental Health and Lifestyle Survey for FY 2012 to convey a strong message of ongoing care and support to the participants, and to provide further support by understanding the changes in their situation that have occurred as well as the causes of these changes.

2. Method

2.1 Group

The group of the FY 2012 survey were residents of nationally designated evacuation zones as of 11 March 2011 and born before 1 April 2012. Specifically, there were 211,615 who were registered residents of the following municipalities: Hirono, Naraha, Tomioka, Kawauchi, Okuma, Futaba, Namie, Katsurao, Iitate, Minamisoma, Tamura, Kawamata, and part of Date (the area with a specific spot recommended for evacuation).

Age 0-3 Survey:	4,625 participants born between April 2, 2009 and April 1, 2012.
Age 4-6 Survey:	5,047 participants born between April 2, 2006 and April 1, 2009.
Primary School Survey:	11,413 participants born between April 2, 2000 and April 1, 2006.
Middle School Survey:	6,023 participants born between April 2, 1997 and April 1, 2000.
General Survey:	184,507 participants born on or before April 1, 1997.

2.2 Survey Methods

Survey sheets (self-report or guardian response) were mailed to the aforementioned participants, according to the aforementioned classifications.

2.3 Data Tabulation Period

Data tabulation period lasted from February 7, 2013 to October 31, 2013.

2.4 Number of Respondent and Number of Valid Responses

The number of respondents (response rate) was 2,143 (46.3%) for the Age 0-3 Survey, 2,231 (44.2%) for the Age 4-6 Survey, 4,703 (41.2%) for the Primary School Survey, 2,126 (35.3%) for the Middle School Survey, and 55,076 (29.9%) for the General Survey.

The number of valid responses (valid response rate) was 2,143 (46.3%) for the Age 0-3 Survey, 2,230 (44.2%) for the Age 4-6 Survey, 4,683 (41.0%) for the Primary School Survey, 2,118 (35.3%) for the Middle School Survey, and 55,064 (29.8%) for the General Survey. There were cases among the aforementioned number of the respondents where the surveys were submitted blank, and these were excluded from the data tabulation. There were also cases among the responses where one respondent submitted multiple surveys. In these cases, only one survey per person was included in the data tabulation.

The results for each item were totaled by each survey sheet. Due to missing values in certain items, the totals may not be consistent with the aforementioned number of valid responses.

3. Results

3.1 Age 0-3

- While non-school age children were classified as Group 1 in the FY 2011 survey, they were classified and totalled as Age 0-3 or Age 4-6 in the FY 2012 survey.
- Of 4,625 respondents, there were 2,143 (46.3%) valid responses.
- Regarding the children's health conditions, there was a generally favorable result, with 98.5% of responses indicating no particular issues ('Extremely good', 'Good', 'Normal'). However, 1.5% responded indicating that there were issues ('Bad', 'Extremely bad').
- Average sleeping time was 9:09 p.m. and average waking time was 7:08 a.m. Length of sleep was 10 hours and 0 minutes on average. 87.2% responded that they took naps, with average napping time of 1 hour and 54 minutes. The length of sleep is almost the same as that of their coevals (3-year-old children) in the national survey.²

3.2 Age 4-6

- Of 5,047 respondents, there were 2,230 (44.2%) valid responses.
- Regarding the children's health conditions, there was a generally favorable result, with 98.2% of responses indicating no particular issues ('Extremely good', 'Good', 'Normal'), which was almost the same as the FY 2011 survey (97.8%). 1.8% responded 'Bad', and there were no responses of 'Extremely bad'.
- In the survey on children's affect and behavior (SDQ Japanese Edition), 16.5% of the 2,221 valid respondents scored 16 or higher, the screening score from the preceding study, and 5.9% scored 20 or higher, the initial support standard. Compared to the FY 2011 Survey (24.4% scoring 16 or higher, 11.3% scoring 20 or higher), there was an improving tendency in score distribution, with the number scoring 16 or higher decreasing to about 2/3, and the number scoring 20 or higher decreasing to about half.
For boys, of the 1,119 valid respondents, 18.4% scored 16 or higher, and 7.0% scored 20 or higher, while for girls, of the 1,102 valid respondents, 14.5% scored 16 or higher, and 4.8% scored 20 or higher. This tendency for girls to score lower was similar to the FY 2011 survey.
- Average length of sleep was 9 hours and 45 minutes, and average length of naps was 1 hour and 33 minutes. Length of sleep was almost the same as the FY 2011 survey. While length of naps appeared to have decreased, we cannot make a simple comparison since the FY 2011 survey totalized children from age 0 to 6. The length of sleep is almost the same as that of their coevals (5-year-old children) in the national survey.²

3.3 Primary School

- Of 11,413 respondents, there were 4,683 (41.0%) valid responses.
- Regarding health conditions, there was a generally favorable result following the FY 2011 survey (97.1%), with 98.0% of responses indicating no particular issues ('Extremely good', 'Good', 'Normal'). On the other hand, 2.0% indicated issues, and responded either 'Bad' (1.9%) or 'Extremely Bad' (0.1%).
- Regarding SDQ scores, of the 4,673 valid respondents, 16.3% scored 16 or higher and 6.4% scored 20 or higher. These ratios are almost the same as the Age 4-6 group, and the ratio of high scores has decreased compared to the FY 2011 survey (22.0% scoring 16 or higher, 10.9% scoring 20 or higher), demonstrating an improving tendency.
- Considering boys and girls separately, 19.1% of boys scored 16 or higher, and 7.8% scored 20 or higher, while 13.2% of girls scored 16 or higher, and 4.9% scored 20 or higher, showing that girls tended to score lower. This tendency is identical to the FY 2011 survey.
- Length of sleep averaged 8 hours and 53 minutes. This is about 20 minutes longer compared to the FY 2011 survey (8 hours and 36 minutes), and was almost identical to the national survey.³

- Regarding fitness habits, fewer than half of respondents (45.1%) responded that they rarely exercise outside of physical education, which is an improvement since the FY 2011 survey (53.0%). However, compared to the report from the national survey,⁴ where the group that responded that they occasionally or never exercise outside of physical education classes in school consisted of 10.9% of boys and 21.6% of girls, fitness habits are still insufficient.

3.4 Middle School

- Of 6,023 participants, there were 2,118 (35.2%) valid responses.
- Regarding health conditions, there was a generally favorable result, with 96.6% of responses indicating no particular issues ('Extremely good', 'Good', 'Normal'). On the other hand, 3.4% indicated issues, and responded either 'Bad' (2.8%) or 'Extremely bad' (0.6%).
- Regarding SDQ scores, of the 2,094 valid respondents, 12.3% scored 16 or higher and 6.2% scored 20 or higher. The percentage scoring 16 or higher was lower than the Age 4-6 and Primary School groups. Furthermore, the ratio has decreased compared to the FY 2011 survey (16.2% scoring 16 or higher, 7.7% scoring 20 or higher), demonstrating an improving tendency. Considering boys and girls separately, for boys, of the 1,035 valid respondents, 12.6% scored 16 or higher, and 6.6% scored 20 or higher, while 12.1% of girls scored 16 or higher, and 5.9% scored 20 or higher, and no gender differences were found.
- Length of sleep averaged 7 hours and 9 minutes. This is about 15 minutes longer compared to the FY 2011 survey (6 hours and 53 minutes), and was almost the same as the national survey³ (7 hours and 14 minutes).
- Regarding fitness habits, 34.3% responded that they rarely exercise outside of physical education, which is an improvement from the FY 2011 survey (47.0%). However, compared to the results from the national survey,⁵ where the group that responded that they occasionally or never exercise consisted of 9.3% of boys and 29.1% of girls, fitness habits are still insufficient.

General Summary of Children

The SDQ was used as an indicator to evaluate children's mental health. Similar to the FY 2011 survey, the percentage of people scoring 16 or higher on the SDQ was high for all groups compared to the percentage (9.5%) in preceding research,⁶ that used the general population in unaffected areas of Japan. Regardless, the ratio of SDQ high scores declined in all age groups compared to the FY 2011 survey, indicating a recovering trend for mental health. Length of sleep was also extended in all age groups compared to the FY 2011 survey, ascertaining that they are approaching the length of sleep in the preceding research. In regards to fitness habits, the ratio of the group that rarely exercises is in a declining tendency, but it was indicated that fitness habits are still insufficient compared to the national survey, though a direct comparison is difficult due to differing survey contents.

3.5 General (people born on or before April 1, 1997)

3.5-1 Mental Health

- General mental health conditions (K6) apply to 3.0% of Japanese regional residents in normal times if a score of 13 is used as the cut-off value.⁷ If trauma responses (PCL) scores of ≥ 44 or ≥ 50 are used as the cut-off value, rescue workers after the New York terrorist attacks in the USA apply to 20.1% or 11.1% respectively.⁸ Using these preceding studies as reference, physicians and other professionals of Fukushima Medical University defined the standards for requiring support to be a score of 17 or higher on the K6, and 61 or higher on the PCL.
- 11.7% scored 13 or higher on the K6, showing that scores had decreased compared to the FY 2011 survey, but are still high compared to the ratio of people scoring higher than the cutoff value during normal times. In contrast to 9.8% of males scoring 13 or higher, 13.2% of females scored 13 or higher. Considering the age groups differently, 13.8% of respondents of 70 years or older scored 13

or higher, while 7.6% of respondents aged 10-19 years scored 13 or higher. These tendencies were similar to the FY 2011 survey.

- On the PCL, 17.4% scored 44 or higher, which was relatively low compared to the FY 2011 survey, but still very high. The gender and age tendencies were similar to those of the K6.

3.5-2 Lifestyle

- 17.9% of respondents evaluated their own health (subjective sense of well-being) as being 'Bad' or 'Extremely bad', and this ratio has decreased compared to the FY 2011 survey.
- 23.9% 'gained 3 kg or more' of body weight after the earthquake, while 14.8% 'lost 3 kg or more'. The percentage of people who gained weight was higher.
- 62.4% of respondents were dissatisfied with their sleep, but this percentage has decreased since the FY 2011 survey.
- 47.3% of respondents rarely exercised, showing that compared to the FY 2011 survey (50.9%), the percentage of people with fitness habits have increased.
- The percentage of current smokers was 20.4%, nearly identical to the FY 2011 survey (20.7%). The percentage of current drinkers was 43.6%, nearly identical to the 2011 survey (44.1%), and the percentage of heavy drinkers (drinking at least 360 ml per day) was also nearly identical to the FY 2011 survey (9.6%), at 9.9%.

References

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Outline of Support Results

1. Purpose

Following the Mental Health and Lifestyle Survey for FY 2012, the response contents were evaluated and analyzed by physicians of the Fukushima Medical University, and the Mental Health Support Team, composed of clinical psychologists, health nurses, and nurses, administered telephone counselling and other services with the purpose of ensuring the improvement of conditions of people assessed to be in need of counselling or support, or connecting them to health/medical institutions.

2. Method

2.1 Support Group

Respondents of the Mental Health and Lifestyle Survey for FY 2012, who are residents of state-designated evacuation areas born on or before 1 April 2012, and apply to the following selection criteria.

2.2 Selection Criteria

A) Support via Telephone (henceforth 'Telephone Support')

a) Support Standards Due to Scale Scores (henceforth 'Support due to Scales')

Children: People who score 20 or higher on the SDQ (on children's affect and behavior).

General: People who score 17 or higher on the K6 (general mental health conditions) or 61 or higher on the PCL (trauma response).

b) Support Standards Due to Items Other than Scales

Children: People assessed to require support based on the contents of free description or descriptions in margins.

General: People with a previous history of high blood pressure or diabetes who reported that they have not been seeing a doctor, with a Body Mass Index (BMI: Calculated from height and weight given in the survey) of 30.0 kg/m² or more, and who have gained 3 kg or more in body weight since the earthquake (high risk for high blood pressure/diabetes).

People with a previous history of psychiatric illness, and who reported that they have not been seeing a doctor.

People assessed to require support based on the contents of free description or descriptions in margins.

B) Support via Writing (henceforth 'Written Support')

a) Support Standards Due to Scale Scores

Children: People who score 16 or higher on the SDQ (on children's affect and behavior), and do not meet the support criteria for telephone support.

General: People who score 13 or higher on the K6 (general mental health conditions) or 44 or higher on the PCL (trauma response), and who do not meet the support criteria for telephone support.

b) Support Standards Due to Items Other than Scales

Children: No selection criteria.

General: People who are not participating in recommended care, or people who are dissatisfied with their quality of sleep or feel depressed throughout the day and whose activity has declined, who have not made a medical visit, and do not meet any of the above support criteria.

People with a score of 2 or more out of 4 on CAGE (alcohol dependency scale)

2.3 Support Methods

Telephone support survey contents were screened by the Mental Health Support Team, and telephone support was administered.

Written support survey contents were screened by the Mental Health Support Team, and a letter in an envelope with a return postcard was mailed to them. The subject's desire for telephone support was screened based on the reply on the postcard, and telephone support was provided for those who indicated their desire for support, or those who were assessed to require support based on the reply content.

3. Results

Of the respondents in the Mental Health and Lifestyle Survey for FY 2012, there were 1,474 children and 16,242 adult who required support. 2,657 respondents who required support met the CAGE (alcohol dependency scale) criteria alone.

The breakdown of the children who required support is as follows. There were 674 telephone support group and 800 written support group. Of the latter, 41 people were assessed to require telephone support based on the reply content, so there was a total of 715 (406 boys (56.8%), and 309 girls (43.2%)). Among these, telephone support was successfully administered to 623 (87.1%). 408 (65.5%) of these support group resided within the prefecture, and 215 (34.5%) resided outside the prefecture.

The breakdown of the general support groups is as follows. Among the telephone support group, there were 4,130 group of support due to scales (1,595 male (38.6%), 2,535 female (61.4%)), and 1,944 group of items other than scales (688 male (35.4%), 1,256 female (64.6%)), for a total of 6,074 group. Among these, telephone support was successfully administered to 5,324 (87.7%). 4,277 (80.3%) of these support group resided within the prefecture, and 1,047 (19.7%) resided outside the prefecture. There were 10,168 group of written support. Among these, there was a total of 701 respondents who were assessed to require support via telephone based on their reply contents, with 535 group of support due to scales (242 male (45.2%), 293 female (54.8%)), and 166 group of support due to items other than scales (92 male (55.4%), 74 female (44.6%)). Among these, telephone support was successfully administered to 667 (95.1%). 533 (79.9%) of these support group resided within the prefecture, and 134 (20.1%) resided outside the prefecture.

Information was provided to support group for whom telephone support was not administered due to absence or other reasons, apart from death, by sending a pamphlet related to mental health, lifestyles, and care prevention. Also, information was provided for support group who met only the CAGE criteria by sending them a pamphlet related to drinking and mental health.

In the telephone support for children, 528 (84.7%) were classified as Follow-up Group 1, and 82¹ (13.2%) were classified as Follow-up Group 2. Also, when² classifying the contents discussed within the support according to the Categories of Problems that Surround Group, the category of Children's Reactions included reaction to earthquake/radiation and effects on school life, and the category of Problems with Guardian/Household included guardians themselves and family relationships.

In the general telephone support, 4,277 respondents (80.3%) were classified in Follow-up Group 1, and 866 respondents (16.3%) were classified in Follow-up Group 2. Of the written support group, 559 (83.9%) were classified in Follow-up Group 1, and 89 respondents (13.3%) were classified in Follow-up Group 2. Also, when classifying the contents discussed within the support according to the Categories of Problems that Surround Group, the category of One's Own Reactions included physical problems and sleep disturbance, the category of Problems within Family included changes in daily lifestyle, and the category of Problems in Social Life included dissatisfaction with government policies/issues of compensation.

From this point forward, it will be necessary to cooperate with municipalities, the Fukushima Mental Care Center, and other organizations, to provide continued support.

1) Follow-Up Group 1: Group assessed to be able to cope on their own, including cases where situational improvement has been screened in the aspects of physical condition or environment, and cases where the use of support resources has been screened.

2) Follow-Up Group 2: Group assessed to have some concerns left, including those with feelings of unwellness or strong aftereffects of the disaster, and those with social/school maladjustment or isolation.

References

1) Mental Health and Lifestyle Survey of the 14th Prefectural Oversight Committee Meeting for Fukushima Health Management Survey for FY 2012