Initial Investigation on the Results of Quality of Life Survey FY 2011 (Online Survey)

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Well-Being Study Unit
Economic and Social Research Institute
Cabinet Office, Government of Japan

Content

1. Outline of the survey

(1) The purpose of the survey

This survey was conducted via the Internet to measure the proposed well-being indicators which were not included in the Quality of Life Survey using direct-visit and self-completion questionnaires (also conducted in March, 2012), such as the NEET-Hikikomori Scale and depression scale. Another purpose of this online survey was to investigate relationships between these indicators and subjective well-being.

Although online surveys using panel respondents have the advantage of being able to be implemented in a short-term period, deliberate consideration is required as it is questionable if their sample is representative of the population in terms of age, income, and jobs and whether this survey method is reliable (Honda & Motokawa, 2005[1]; Ohsumi & Maeda, 2008[2]; Cabinet Office, 2010[3]). It has also been pointed out that online surveys tend to obtain more critical responses (NHK Broadcasting Culture Research Institute, 2010). Therefore, in the following analysis, we compare the results from this online survey with ones from the Quality of Life Survey which used direct-visit and self-completion questionnaires, as well as other statistical surveys, and tentatively suggest limitations of this survey. We should also consider the differences in reliability between the sample under age 39 (in which more than 90% are internet users) and that of older generations when referring to the results from this survey. In fact, we observe differences in the results for various indicators between this online survey and the direct-visit and self-completion questionnaires (for details, please refer to the results of each indicator); however, it is not clear whether the differences were caused by its survey method or by its sampling. Further research is needed in this area. For the detailed analysis on sampling bias and more, please refer to the document titled "Comparison between the Quality of Life Survey results (online survey and direct-visit and self-completion questionnaires) and other survey results" which will be published separately.

(2) Survey items

①Subjective well-being, ②interdependent happiness, ③life satisfaction, ④affect balance, ⑤psychological well-being, ⑥satisfaction with various domains of life, ⑦anxiety, ⑧parenting experiences, ⑨trust in institutions, ⑩social trust, ⑪self-perceived usefulness, ⑫social support, ⑬NEET and Hikikomori, ⑭depression scale, etc.

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[1]Honda, Norie and Motokawa, Akira (2005) "Can internet surveys be used for social surveys?: Results of an experimental study-" (*Internet chosa ha shakai chosa ni riyou dekiru ka – jikkenn chosa ni yoru kenshou kekka-) .JILPT Research Report.*

[2]Ohsumi, Noboru and Maeda, Tadahiko (2008) "The challenges of internet surveys: Results of an experimental study" (*Internet chosa no kakaeru kadai –Jikken chosa kara mietekita koto-*) *Yoron, Journal of Japan Association for Public Opinion Research,* no.101, pp.79-94.

[3]Cabinet Office (2010) "The possibility to use internet surveys for opinion polls: Regarding lifestyle preferences" (*Yoron chosa ni okeru internet chosa no katsuyou kanousei ~Kokumin seikatsu ni kansuru ishiki ni tsuite~),* June2009.

(3) Target population

①Coverage: Japanese nationals between the age of 15 and 69.

②Number of samples: 10,000

③Sampling: Invitation emails were sent to panel respondents. Respondents were asked to answer the prefecture they live in, their sex, age, and industry category of their job. Responses were sorted in chronological order according to region, sex, age groups (by 5 years), and industry categories of the Census. Responses were collected until they reached required numbers.

(4) Survey period

March 13th – March 16th, 2012

(5) Survey method

The online survey was conducted through a website created solely for the survey.

(6) Survey agency: INTAGE Inc.

Panel respondents: 1603000 (March, 2012) Male 45.8%, Female 54.2%

Age groups of Panel respondents

	Men	Women
15-19	2.2%	2.5%
20-29	17.2%	21.6%
30-39	29.0%	37.6%
40-49	28.2%	26.1%
50-59	15.1%	9.4%
60-69	8.3%	2.9%
Total	100%	100%

(7) Number of responses

①By age and sex

Number of responses by age and sex

	Number of responses		Ideal number of responses based on population rate in the 2010 census		Difference		Difference (%)	
	Men	Women	Men	Women	Men	Women	Men	Women
15-19	356	322	365	347	-9	-25	-2.4%	-7.1%
20-29	738	687	816	793	-78	-106	-9.6%	-13.4%
30-39	1,078	943	1,076	1,051	2	-108	0.2%	-10.3%
40-49	1,122	986	989	979	133	7	13.5%	0.7%
50-59	1,065	894	950	963	115	-69	12.1%	-7.2%
60-69	1,217	1,061	1,037	1,103	180	-42	17.3%	-3.8%

②Labour force status

Labour force status	Major industry groups	Ideal number of responses	Number of responses	Difference
Employees	Agriculture and forestry	203	113	-90
	Fisheries	20	5	-15
	Mining	3	5	2
	Construction	592	622	30
	Manufacturing	1,173	1,242	69
	Electricity, gas, heat supply and water	31	32	1
	Information and communications	182	190	8
	Transport	349	371	22
	Wholesale and retail trade	1,194	1,270	76
	Finance and insurance	172	187	15
	Real estate	83	90	7
	Accommodations, eating and drinking services	352	371	19
	Medical, health care and welfare	593	622	29
	Education, learning support	298	323	25
	Compound services	76	55	-21
	Services, not elsewhere classified.	956	1,005	49
	Government, except elsewhere classified	253	246	-7
	Unable to be classified	121	133	12
Unemployed		430	137	-293
Housewives/ Husbands		1,680	883	-797
Students		782	467	-315
Those not in the labor force		580	598	18
Unable to be classified			1,502	1,502
Total		10,000	10,469	469

* Ideal number of responses is based on the ratio calculated from the population between the ages of 15 and 69 by industry (major groups) in the 2010 census. The discrepancy between the questions used for sampling and those used for the survey resulted in the difference between the actual number of responses and the ideal number of responses for those non-employees. As the data from the survey results were prioritized and classified here, there were many respondents who were unable to be classified.

2. Summary results

(1) Subjective well-being

① Level of current happiness

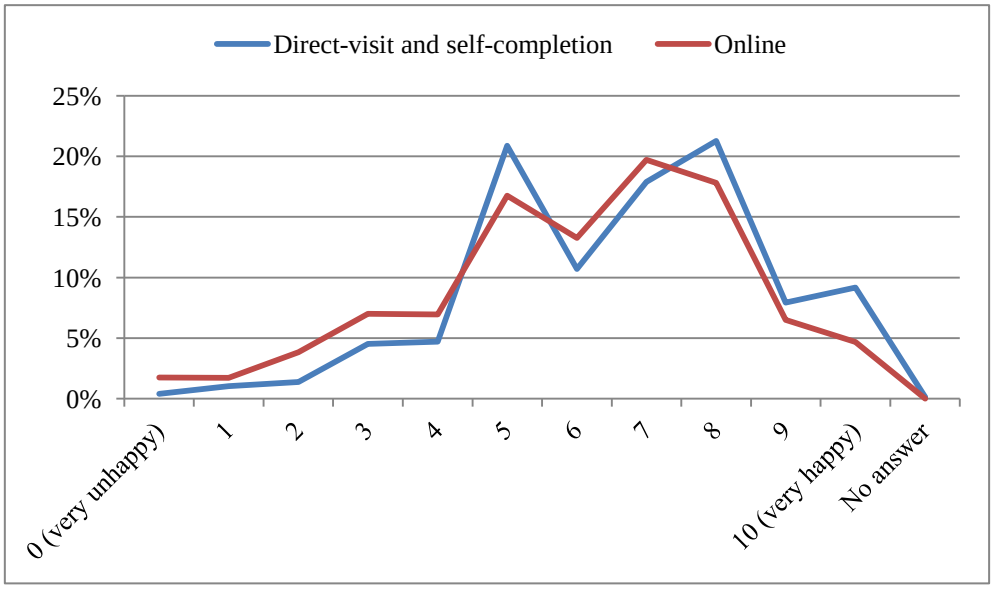
Respondents were asked to score subjective well-being between 10 (Very happy) and 0 (Very unhappy) and the average was 6.1. This score was relatively low, compared with the 6.6 average score of the direct-visit and self-completion questionnaires that were also conducted in March, 2012. Considering that the average score from the preliminary online survey of young people in December, 2011 was also low (6.2), sampling methods and survey methods may have a great impact on the results (See Table 1).

Table1 Comparison of Level of Current Happiness

Survey (period of the survey, survey method)	Average level of current happiness
Quality of Life Survey (March 2012, Online)	6.1
Quality of Life Survey (March 2012, Direct-visit and self-completion)	6.6
Preliminary survey of young people (December 2012, Online)	6.2

The frequency distribution curve of the responses (Graph 1) shows two peaks, at points five and seven. These peaks are relatively low and there are more responses at low points, compared to the direct-visit and self-completion questionnaires.

Graph1 Distribution Curve of Level of Current Happiness



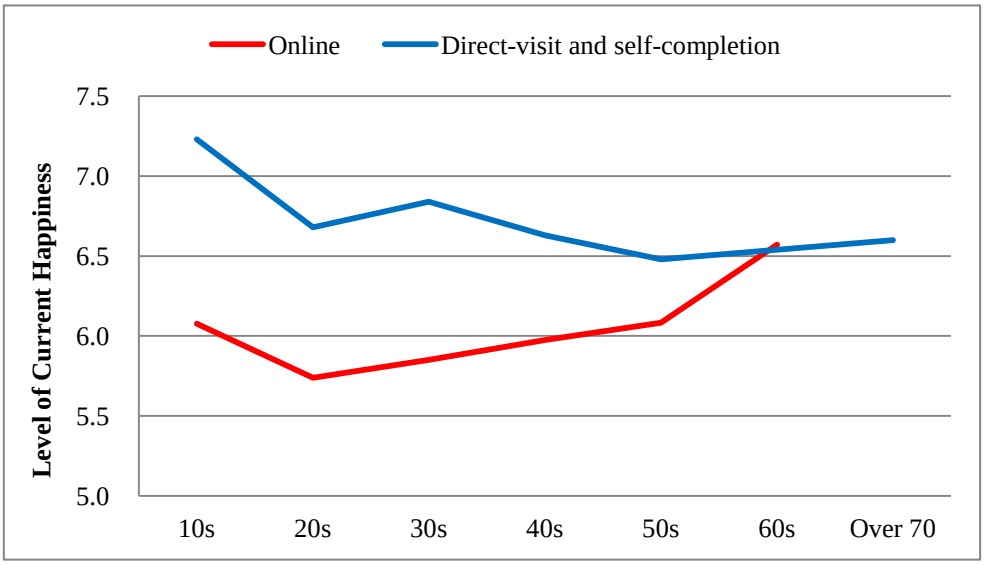
By sex, the women's average, 6.4 was higher than the men's average, 5.8 (Table 2). Gender differences were the same between the online survey and the direct-visit and self-completion questionnaires.

Table2 Average Level of Current Happiness by Sex

	Average	Standard deviation	Number of respondents	Average in direct-visit and self-completion questionnaires
Men	5.8	2.2	5,576	6.3
Women	6.4	2.2	4,893	6.9
Total	6.1	2.2	10,469	6.6

By age, the average score declined from the 10s and 20s, but increased with age among respondents over 20s. As a result, the entire curve is a "J-shape." (Graph 2)

Graph2 Level of Current Happiness by Age



To statistically examine the differences by surveys, a two-way analysis of variance (ANOVA) was performed (see chapter 1 in the appendix for the details of statistical test results). In this analysis, the dependent variable was subjective well-being, and independent variables (including interaction terms) were survey methods (direct-visit and self-completion questionnaires or online survey), sex (male or female) and age (6 categories from 10s to 60s). The main effect of survey methods, sex, and age were all significant. In particular, there was a strong main effect of survey methods, which suggests a need for careful interpretation of the online survey results. The interaction effect between survey methods and age also indicates that the effect of survey methods varied depending on age. While the interaction effect between sex and age was significant, the interaction effect between survey methods and sex was not significant.

By employment status (the sample size was 8,967, excluding respondents who were not unable to be classified in the online survey), the average level of current happiness among the unemployed was very low, 4.6 while the average among housewives/husbands was high, 6.8 (Graph 3). By industries, employees in Agriculture and Forestry had low level of current happiness and household

income. ANOVA and regression were performed to examine the effect of employment status, age, sex, and household income on the level of current happiness. As a result (see chapter 2 in the appendix), only Education and Learning Support was significant among industries.

Table3 Level of Current Happiness, Household Income (Index), and Average Age by Employment Status (Except respondents who were unable to be classified)

	Level of current happiness	Household Income	Age
Unemployed	4.6	3.8	41.2
Housewives/husbands	6.8	6.0	50.3
Students	6.0	4.9	18.3
Those not in the labor force	6.2	4.5	60.6
Employees	5.9	6.3	44.0
Agriculture and forestry	5.4	5.3	45.1
(Fisheries)	6.6	4.8	48.8
(Mining)	6.8	5.0	50.6
Construction	5.7	6.3	46.0
Manufacturing	5.9	6.7	43.1
Electricity, gas, heat supply and water	5.7	6.5	44.2
Information and communications	5.6	6.2	39.8
Transport	5.7	5.9	44.3
Wholesale and retail trade	5.9	5.9	43.9
Finance and insurance	6.3	7.4	44.0
Real estate	6.0	7.6	49.8
Accommodations, eating and drinking services	5.7	5.3	41.8
Medical, health care and welfare	6.1	6.8	43.1
Education, learning support	6.4	6.9	45.2
Compound services	6.1	6.8	44.2
Services, not elsewhere classified	6.0	5.9	44.3
Government, except elsewhere classified	6.2	7.3	44.8
Industries unable to be classified	5.9	5.6	47.5
Total	6.0	6.1	44.4

*Household income indicators are calculated by assigning the number 1 if household income is less than 1,000,000 yen and 2 if household income is between 1,000,000 and 2,000,000 yen. When household income exceeds 10,000,000 yen, 11 is assigned if household income is between 10,000,000 and 12,000,000 yen, 12 is assigned if household income is 12,000,000 and 15,000,000 yen, 13 is assigned if household income is 15,000,000 and 20,000,000 yen, and 14 is assigned if household income is over 20,000,000 yen.

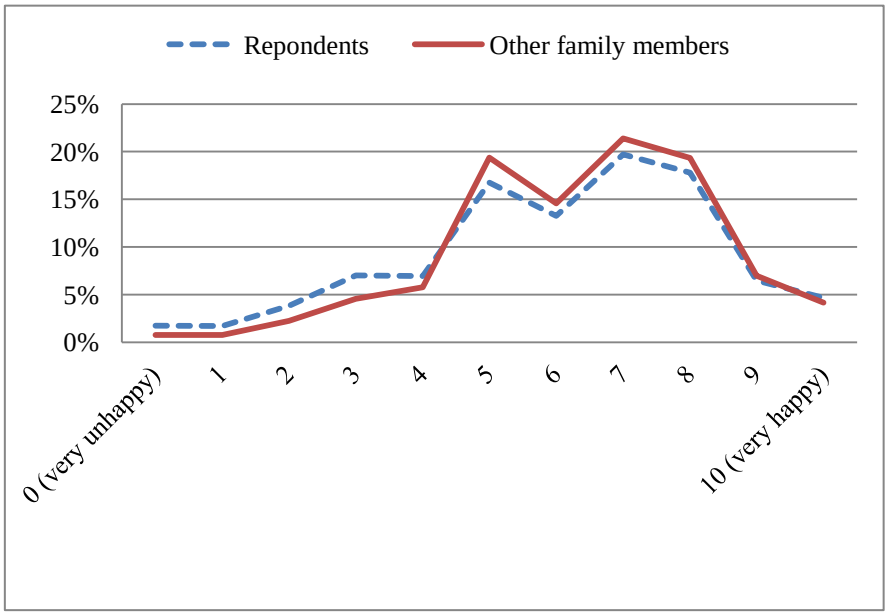
**The samples in fishery and mining were extremely small.

②Perceived level of happiness among other family members

When asked about the level of happiness of other family members living together (9,303 respondents live with other family members), respondents answered 6.4 on average, which is slightly higher than their own level of happiness (Graph 3). Both men and women marked higher scores for the level of happiness of other family members than their own happiness (Table 4). In comparison to the results from direct-visit and self-completion questionnaires, the difference between the level of their own happiness and that of their family member was slightly large. In Graph 4, which shows the score of family member's happiness compared to the score of their own happiness, respondents who marked 0 as their own happiness answered 3 on average for their family member's happiness. Respondents whose level of happiness was low tended to mark higher scores for the level of happiness among other family members. When looking at the difference in happiness among family members (family member's happiness - their own happiness) by age, the difference peaks in the 30s and the curve is an "inverted U-shape" (Graph 5). ANOVA was conducted after combining the data from direct-visit and self-completion questionnaires (only under age 69). In this analysis, the dependent variable was the respondents' own happiness, and independent variables are family member's happiness, sex (male or female), age (6 categories from 10s to 60s), and survey methods (direct-visit and self-completion questionnaires or online survey). As a result, family member's happiness, sex, and age were significant. Moreover, the interaction effects between family member's happiness and age, family member's happiness and survey methods, sex and age, and age and survey methods were significant.

When regression analysis was performed to examine the effect of the difference in happiness, sex, age, and survey methods on respondents' own happiness, all of the independent variables were significant (see chapter 4 in the appendix). The result shows that the level of current happiness decreased as the difference in happiness of their own and their family member increased. However, it can be inferred from the relationship between current happiness and the difference in happiness that there is endogeneity (an independent variable is correlated with the error term) in this regression model. After the difference in happiness was controlled in the generalized method of moments (GMM), the correlation coefficient of the difference in happiness became smaller than -6, which means that the level of current happiness decreases by more than 6 when the difference in happiness increases by 1. This result indicates that the difference in happiness among family members has a very strong effect on respondents' own happiness. Although interpretations need careful consideration because estimators can be different depending on estimation methods and this equation is not very accurate, this suggests the importance of detailed analysis on the difference in happiness among family members. In this survey, however, the difference in happiness among family members was measured using respondents' perceptions (evaluation of their own happiness and their family member's happiness). It implies that household surveys are needed to explore the difference in happiness among family members.

Graph3 Distribution of Level of Happiness of Other Family Members and Respondents

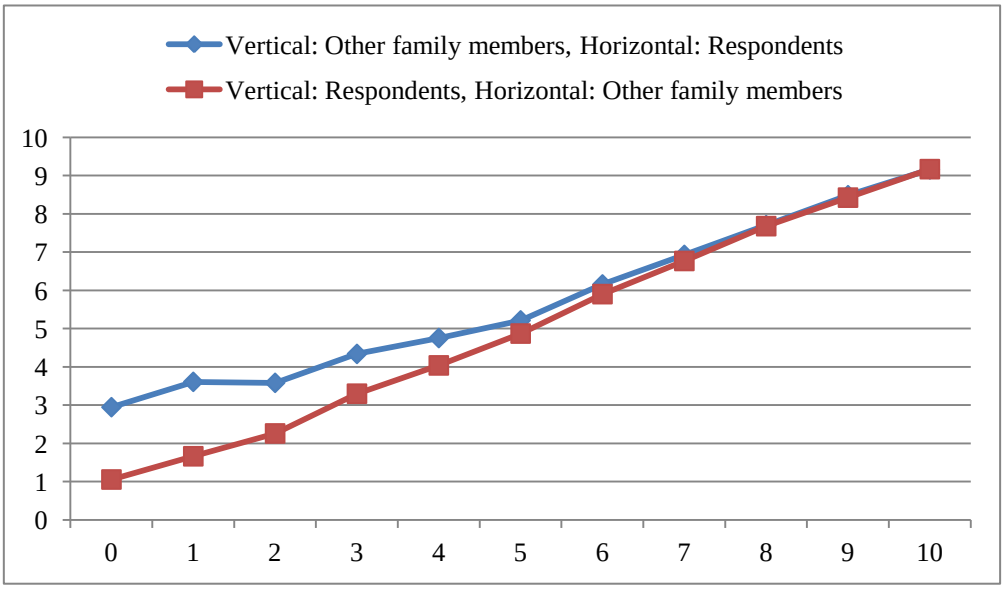


(Note: Distribution of level of happiness among other family members excludes respondents who do not live with any family member)

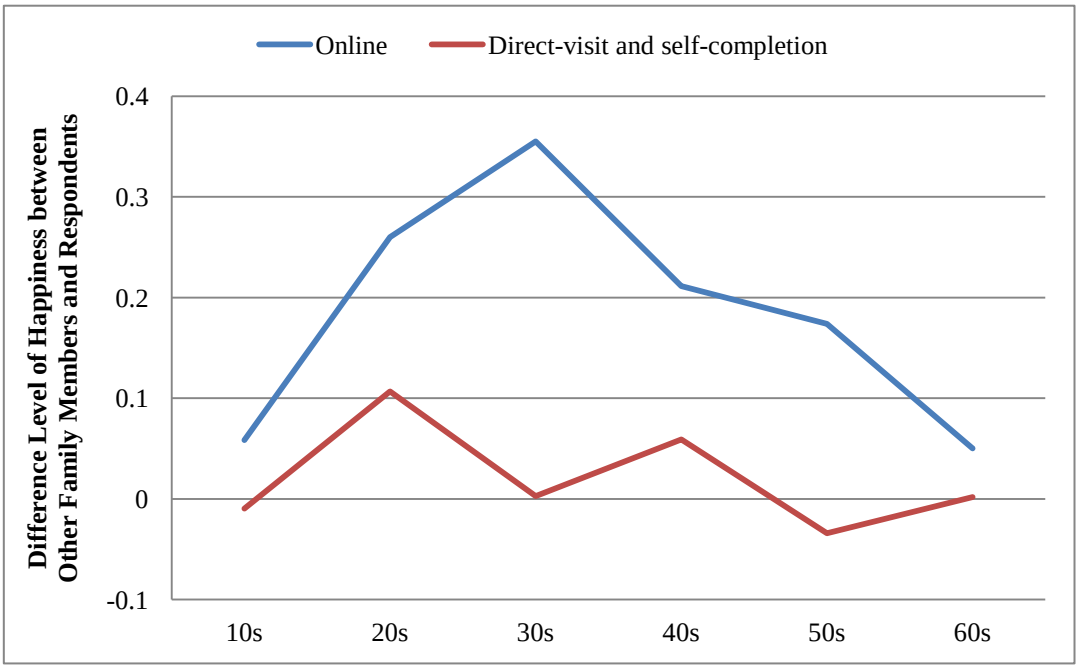
Table4 Difference in Level of Happiness between Other Family Members and Respondents By Sex

	Average	Standard deviation	Number of Respondents
Men	0.21	1.39	4,919
Women	0.17	1.46	4,384
Total	0.19	1.42	9,303

Graph4 Relationship between Respondents' and Their Family Members' Happiness



Graph5 Difference in Level of Happiness between Other Family Members and Respondents ByAge



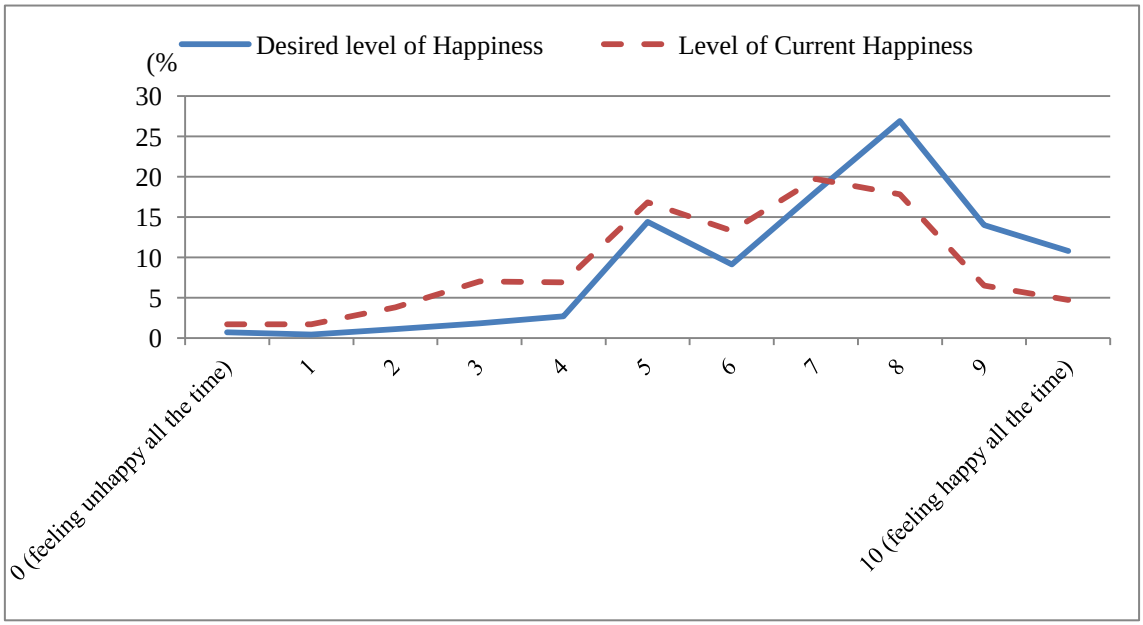
③Desired level of happiness

To the question: “What is your desired condition when 0 is “feeling unhappy all the time”, 5 is “feeling unhappy half of your time, and feeling happy for half of your time”, and 10 is “feeling happy all the time”, the average score was 7.2, which was 1.1 higher than the average of level of current happiness (Table 5, Graph 6). The result was different from that of direct-visit and self-completion questionnaires in that the desired level of happiness increased with age (Graph 7). By age, in the online survey, the correlation coefficients between the level of current happiness and desired level of happiness were significant at 1% significance level in all age groups (10s 0.36; 20s 0.44; 30s 0.43; 40s 0.43; 50s 0.48; 60s 0.46). When regression analysis was performed to examine the effect of survey methods (direct-visit and self-completion questionnaires or online survey), sex (male or female) and age (6 categories from 10s to 60s) on the level of current happiness, the main effect of desired level of happiness, age, and survey methods were significant while the main effect of sex was not significant (see chapter 5 in the appendix). The interaction effects between the desired level of happiness and sex, age, and survey methods were significant. For interaction effects between three variables, sex, age, and survey methods were significant.

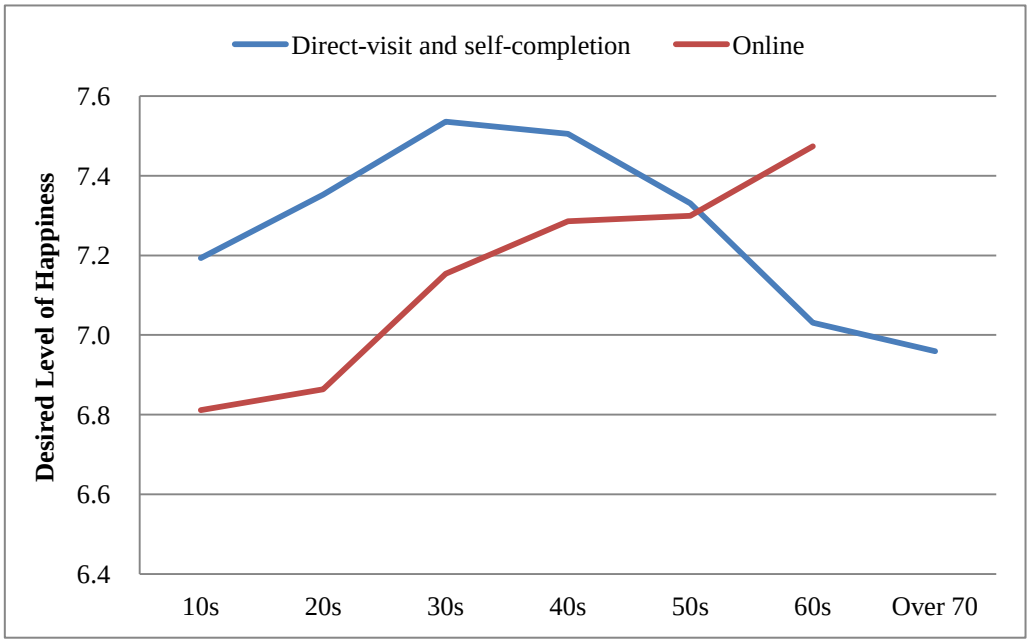
Table5 Average Scores of Desired Level of Happiness and Level of Current Happiness

	Online			Direct-visit and self-completion		
	Desired	Current	Gap	Desired	Current	Gap
Men	7.0	5.8	1.2	7.0	6.3	0.7
Women	7.4	6.4	1.1	7.5	6.9	0.5
Total	7.2	6.1	1.1	7.2	6.6	0.6

Graph6 Distribution of Desired Level of Happiness and Level of Current Happiness



Graph7 Desired Level of Happiness By Age



When regression analysis was conducted to determine the effect of the difference between the desired level of happiness and the level of current happiness, sex, age and survey methods on the level of current happiness, all of the independent variables were significant (see chapter 6 in the appendix). This result suggests that the level of current happiness decreased as the gap between the desired level and current level increased. It can be inferred from the difference between the desired level of happiness and the level of current happiness, however, that there is endogeneity (an independent variable is correlated with the error term) in this regression model. After the difference between the desired level of happiness and the level of current happiness was controlled in the generalized method of moments, the correlation coefficient of the difference in happiness became -1.86, which means that the level of current happiness decreases by almost 2 when the difference in happiness increases by 1. This result indicates that the difference between the desired level of happiness and the level of current happiness has a very strong effect on the level of current happiness. Although interpretations need careful consideration because estimators can be different depending on estimation methods and this equation is not very accurate, similar to the difference in happiness among family members, this suggests the importance of detailed analysis on the difference between the desired level of happiness and the level of current happiness.

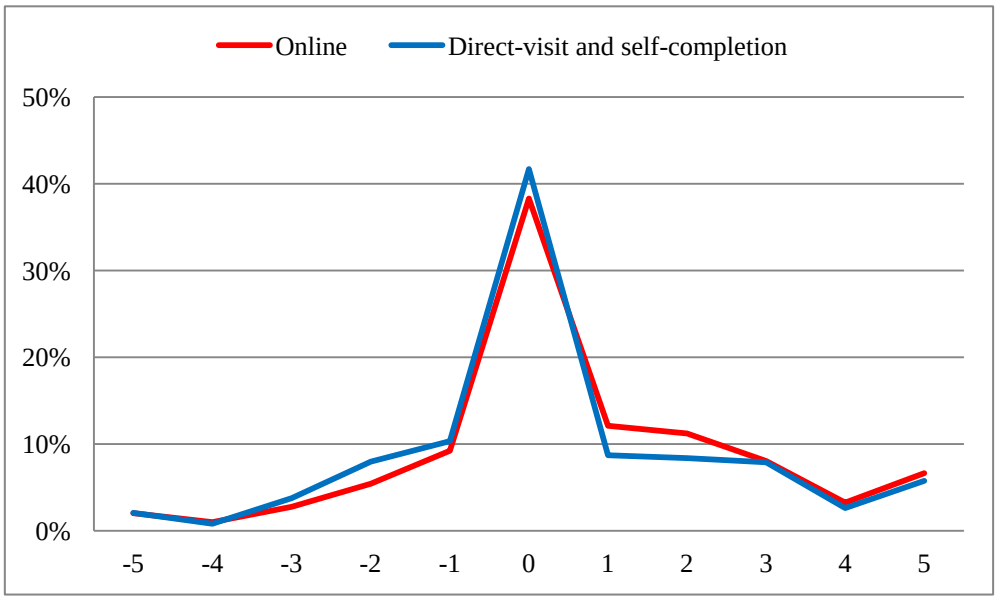
④Expected level of happiness in the future

When asked the expected level of happiness in 5 years with 0 being same happiness level as now, 5 being happier than now, and -5 being less happy than now, the average was 0.6. When regression analysis was performed to examine the effects of survey methods (direct-visit and self-completion questionnaires or online survey), sex (male or female) and age (6 categories from 10s to 60s) on the expected level of happiness (see chapter 7 in the appendix), the main effect of sex was significant and women's expected level of happiness was significantly higher than that of men (see the online survey results in Table 6). Because the interaction effect of sex and survey methods was not significant, the difference by sex did not depend on survey methods. Also, there was no difference between the direct-visit and self-completion questionnaires and online survey in the expected level of happiness in the future (Graph 8). The main effect of age and the interaction effect between age and survey methods were both significant. In the online survey, respondents in their 10s and 20s answered +1 and the score decreased with age (Graph 9). In comparison to the results from direct-visit and self-completion questionnaires, the effect of age was smaller.

Table6 Average Scores of Expected Level of Happiness in 5 years (increase from current level)

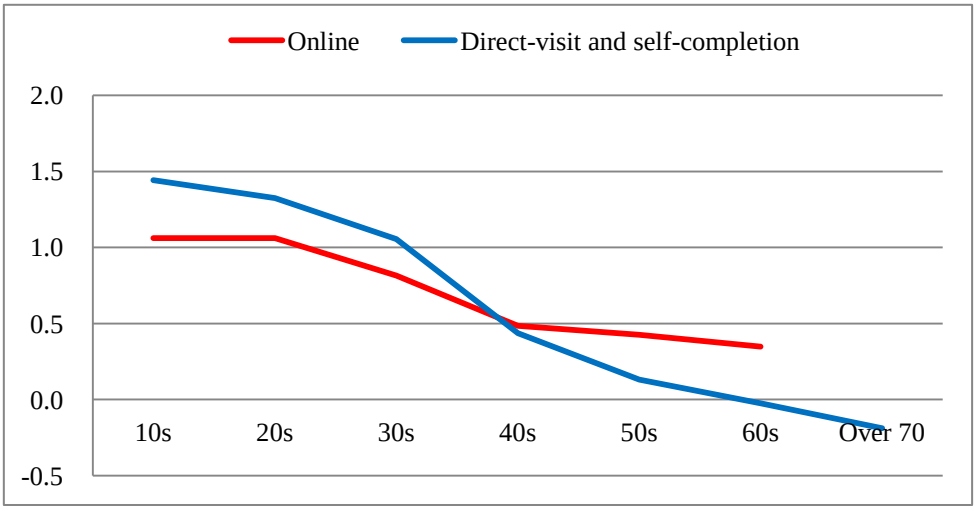
	Online	Direct-visit and self-completion
Men	0.5	0.3
Women	0.8	0.5
Total	0.6	0.4

Graph8 Distribution of Respondents (Expected Level of Happiness in 5 years)



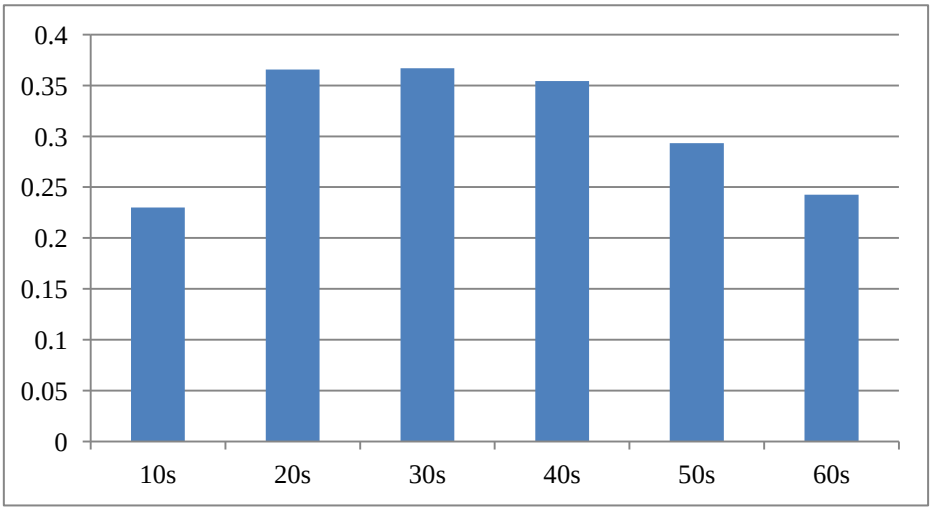
Graph9 Expected Level of Happiness By Age

(Vertical axis stands for average level of expected increase in happiness in 5 years)



In this online survey, the correlation coefficients between the expected level of happiness and the level of current happiness were 0.23 for 10s, 0.37 for 20s and 30s, 0.35 for 40s, 0.29 for 50s, and 0.24 for 60s (all of them were significant at the 1% significant level). When the level of current happiness was higher, the expected level of happiness in the future tended to be more positive. This was also proven by regression analysis in which the dependent variable was the level of current happiness and the independent variables were survey methods, sex, and age. In addition, generalized method of moment (GMM) estimation suggests that the expected level of happiness was more correlated to the level of current happiness after controlling the expected level of happiness (See Chapter 8 in Appendix).

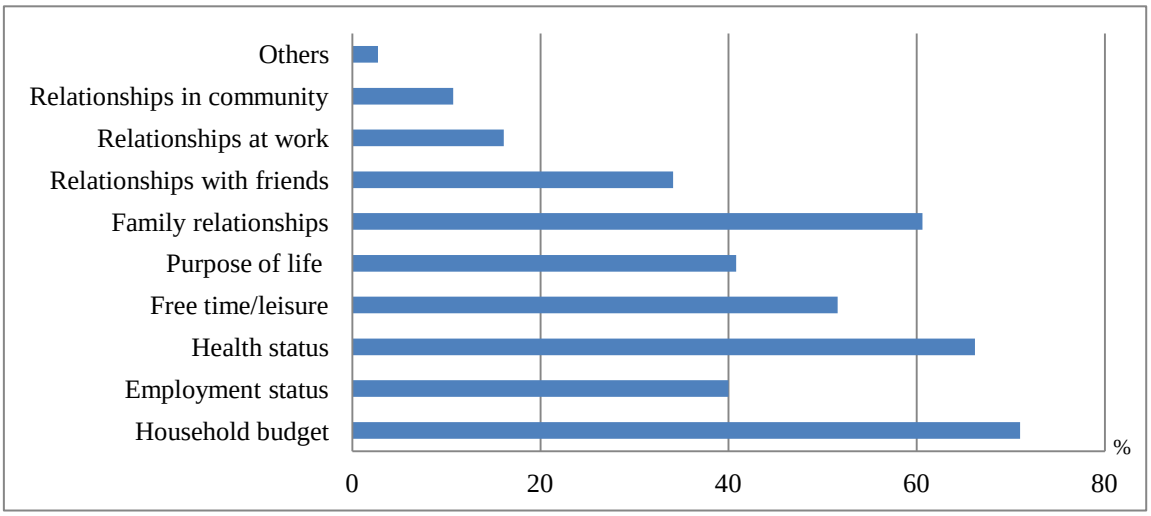
Graph10 Correlation Coefficients between Expected Level of Happiness and Level of Current Happiness



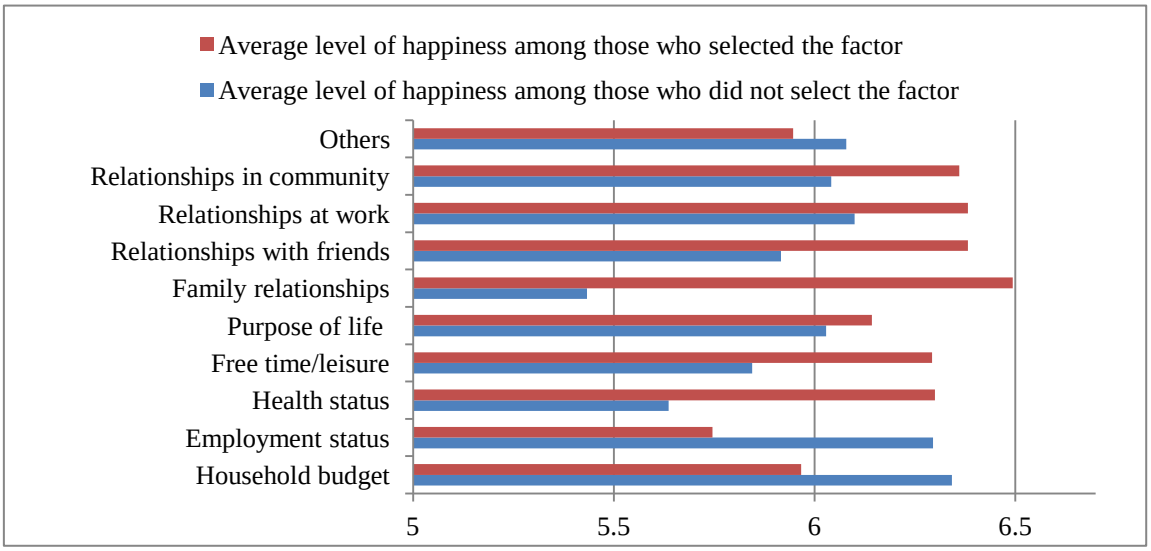
⑤Factors considered important to determine happiness

When asked about factors that are considered important to determine happiness (multiple answers were allowed), “household budget”, “health status”, and “family relationships” were the top three answers chosen by respondents (Graph 11). Comparing the level of current happiness among those who selected each factor and those who did not, the level of current happiness among respondents who selected “household budget” and “employment status” was low while the level of current happiness among those who selected “family relationships”, “health status”, and “free time/leisure” was high. This difference was statistically significant (the 5% significance level was used only for “purpose of life (job, hobby and social contribution)”, and the 1% significance level was used for the other factors; except “others”)(Graph 12).

Graph11 Factors Considered Important to Determine Happiness



Graph12 Average Level of Current Happiness by Factors



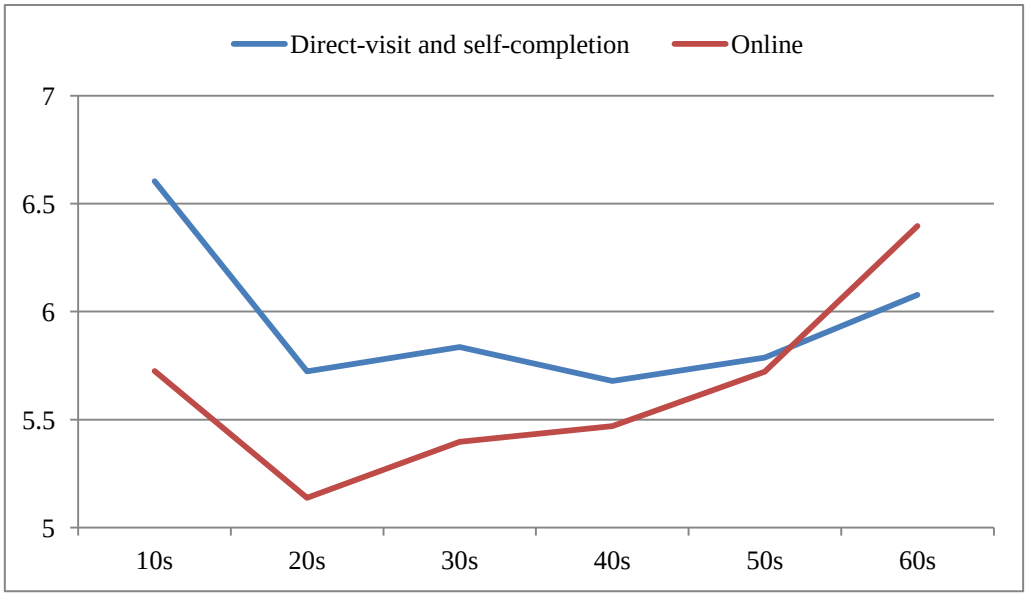
⑥Life satisfaction

To the question: “All things considered, how satisfied are you with your life as a whole these days? Please score your satisfaction between 0 (completely dissatisfied) and 10 (completely satisfied)”, there were not many people who responded with high scores and the average score was 5.7, which was lower than the level of current happiness. When t-test was conducted to examine the average scores of the level of current happiness and life satisfaction, these average scores were significantly different (see chapter 9 in the appendix). The difference in the average scores was larger in the online survey than in the direct-visit and self-completion questionnaires. By age, life satisfaction was lower among young respondents while it was higher among older respondents in the online survey, compared with the result from direct-visit and self-completion questionnaires (Graph 13). On the other hand, the frequency distribution of responses to life satisfaction in the online survey was similar not only to that in the direct-visit and self-completion questionnaires, but also to the frequency distribution of responses to the level of current happiness in the online survey (Graph 14). The correlation coefficients of the level of current happiness and life satisfaction in the online survey were very high, 0.71 for 10s, 0.75 for 20s, 0.76 for 30s, 0.79 for 40s, 0.79 for 50s, 0.75 for 60s (all of them were significant at the 1% significance level).

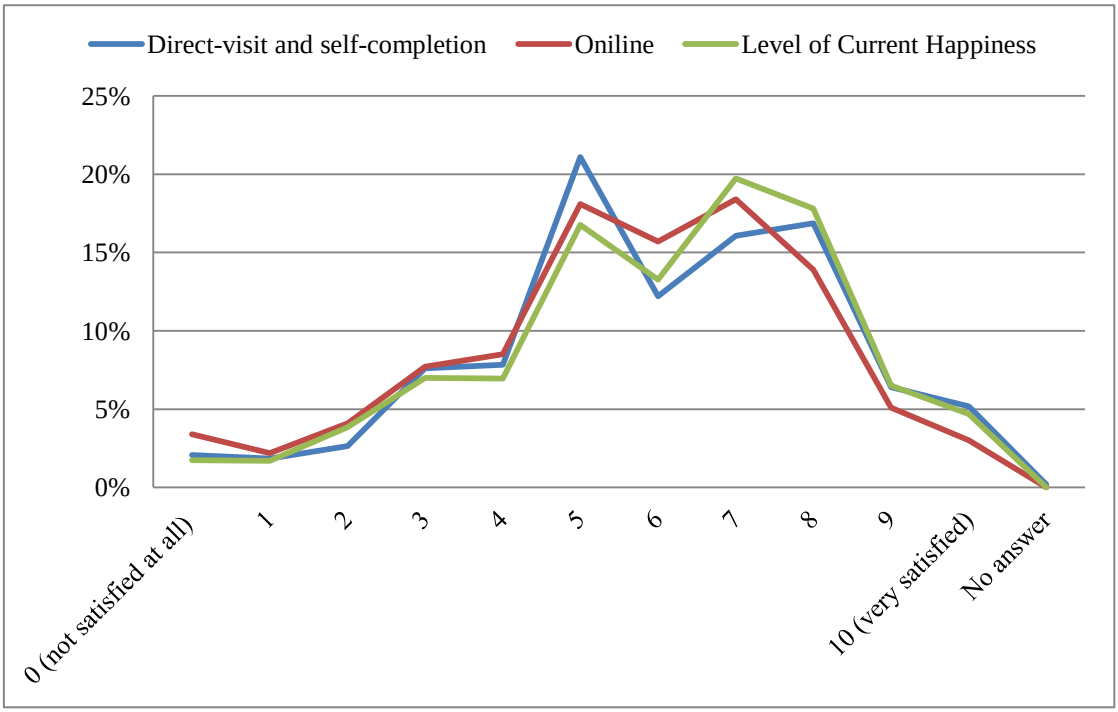
Table7 Life Satisfaction

	Online	Direct-visit and self-completion
Men	5.4	5.6
Women	6.0	6.3
Total	5.7	6.0

Graph13 Life Satisfaction By Age and Surveys



Graph14 Distribution of Life Satisfaction and Level of Current Happiness



⑦Interdependent happiness

When asked nine questions, including three components of "cooperative relativity," "moderateness," and "sense of being ordinary," on a 0-10 scale, respondents answered 5.4 on average. Scores were higher to the question "Although it is quite average, I live a stable life," while scores were lower to the question "I do not have any major concerns or anxieties." By sex, women's scores were higher, as they were for other questions regarding happiness.

Table8 Average Scores of Interdependent Happiness Scale

	Men	Women	Total
I believe that I and those around me are happy	5.1	5.6	5.3
I do not have any major concerns or anxieties	4.8	5.0	4.9
I believe that things are going well for me in general, as they are for others around me	4.9	5.4	5.1
I feel I am being positively evaluated by others around me	4.9	5.3	5.1
Although it is quite average, I live a stable life	5.7	6.3	6.0
I believe that my life is just as happy as that of others around me	5.1	5.7	5.3
I make significant others happy	5.2	5.8	5.5
I believe I have achieved the same standard of living as those around me	5.2	5.7	5.4
I can do what I want without causing problems for others	5.6	6.0	5.8
Interdependent happiness scale	5.1	5.6	5.4

Table 9 shows the distribution of responses to each question. Compared with the level of current happiness, more people answered 5 to the statements in Interdependent Happiness Scale.

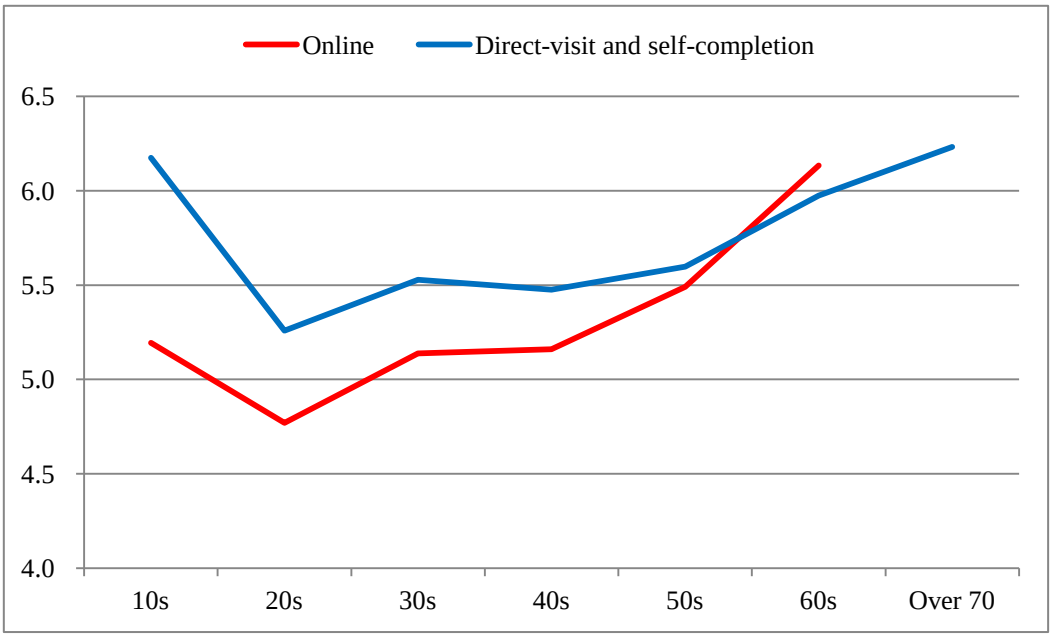
Table9 Distribution of Respondents to Interdependent Happiness Scale (%)

	0	1	2	3	4	5	6	7	8	9	10
I believe that I and those around me are happy	3.5	1.6	3.6	7.6	8.5	33.0	14.6	14.2	9.0	2.2	2.4
I do not have any major concerns or anxieties	10.1	4.0	7.9	11.1	8.8	16.8	9.8	11.2	10.9	4.7	4.7
I believe that things are going well for me in general, as they are for others around me	5.4	2.8	6.0	8.5	9.5	27.2	11.7	13.2	9.7	3.4	2.5
I feel I am being positively evaluated by others around me	5.3	2.5	5.5	8.0	8.8	29.4	13.2	12.6	9.4	3.2	2.1
Although it is quite average, I live a stable life	3.3	2.2	4.2	5.8	7.8	19.1	12.9	14.9	14.8	7.3	7.8
I believe that my life is just as happy as that of others around me	5.1	2.9	5.3	7.6	8.4	25.7	11.8	13.2	11.8	4.5	4.0
I make significant others happy	6.2	2.8	4.8	6.3	8.1	23.1	12.1	13.1	12.8	6.3	4.5
I believe I have achieved the same standard of living as those around me	6.0	3.1	5.1	7.0	9.1	22.3	11.9	12.4	12.1	5.5	5.6
I can do what I want without causing problems for others	4.9	2.5	3.7	5.9	7.4	21.5	13.2	14.2	13.4	7.5	5.9
Interdependent happiness scale	1.7	2.7	4.8	7.2	12.2	24.3	17.3	14.9	10.1	3.7	1.2

*Interdependent happiness scale was calculated for each respondent as average scores to all of the nine questions. Rounded scores of interdependent happiness scale were sorted to fit a 0-10 scale.

When ANOVA was performed to determine the effect of survey methods (direct-visit and self-completion questionnaires or online survey), sex (male or female), age (6 categories from 10s to 60) on interdependent happiness, the main effect of survey methods was significant at the 1% significance level and the score in the direct-visit and self-completion questionnaires was significantly higher (the average score was 5.67 in the direct-visit and self-completion questionnaires). By age, the curve is J-shaped with those in their 20s at the bottom as in the direct-visit and self-completion questionnaires, but the level of interdependent happiness of young respondents were lower in the online survey (Graph 15). Thus, the interaction effect between age and survey methods was significant.

Graph15 Average Level of Interdependent Happiness By Age



In addition, Table 10 shows the correlation coefficients between all of the indicators regarding happiness (only for the online survey). Although all of them were significant at the 1% significance level, interdependent happiness was more correlated to life satisfaction than to the level of current happiness.

Table10 Correlation Coefficients between Happiness Indicators

	1	2	3	4	5	6
1 Level of current happiness	1.00					
2 Perceived level of other family member's happiness	0.77	1.00				
3 Desired level of happiness	0.44	0.47	1.00			
4 Expected level of happiness	0.30	0.29	0.22	1.00		
5 Life satisfaction	0.76	0.68	0.41	0.27	1.00	
6 Interdependent happiness	0.69	0.65	0.38	0.29	0.77	1.00

⑧Affects experienced yesterday

When asked positive affects or feelings such as “happiness” and “contentment” and negative affects such as “anger” and “sadness” experienced yesterday on a 0-10 scale, the average scores for “happiness” and “contentment” were both 5.5 (Table 11). There was not a difference in the scores for “happiness” and “contentment”, which implies that these two variables had similar meaning to respondents (the correlation coefficient was 0.92). On the other hand, “anger” and “sadness” were distinguished and the correlation coefficient was 0.65. ANOVA and Regression analysis were performed to examine the effect of sex (male or female) and age (6 categories from 10s to 60s) on positive and negative affect (see chapter 11 in the appendix). In this analysis, the average score of “happiness” and “contentment” was used as positive affect score and the average score of “anger” and “sadness” was used as negative affect score. As a result, less respondents experienced negative affects than positive affects (Table 12), and this tendency was seen particularly in women. The main effect of age was also significant, and the curve for positive affects is J-shaped with those in their 20s at the bottom while the curve for negative affects was stable until it decreases among those in their 60s. When looking at “anger” and “sadness” separately, the average score for “anger” stayed the same except for respondents in their 60s while the average score of “sadness” decreased with age (Graph 16). When affect balance score was calculated from subtracting negative affect score from positive affect score, the average score was 2.1, which means that respondents experienced positive affects more than negative effects. By sex, women experienced positive affects more than men. By age, the curve is J-shaped with those in their 20s at the bottom (Graph 17). The correlation coefficients between the level of current happiness and positive affect were 0.54 for 10s, 0.65 for 20s, 0.65 for 30s, 0.69 for 40s, 0.67 for 50s, and 0.62 for 60s; the correlation coefficients between the level of current happiness and negative affect were -0.16 for 10s, 0.19 for 20s, -0.24 for 30s, -0.24 for 40s, -0.13 for 50s, -0.27 for 60s; the correlation coefficients between the level of current happiness and affect balance were 0.48 for 10s, 0.62 for 20s, 0.60 for 30s, 0.62 for 40s, 0.60 for 50s, 0.54 for 60s (all of them were significant at the 1% significance level). These results indicate that the level of current happiness and positive affects experienced yesterday were strongly correlated.

Table11 Average Scores of Affects Experienced Yesterday

	Happiness	Contentment	Anger	Sadness
Men	5.1	5.2	3.7	3.3
Women	5.9	5.9	3.5	3.2
Total	5.5	5.5	3.6	3.3

Table12 Distribution of Scores of Affects Experienced Yesterday

	0	1	2	3	4	5	6	7	8	9	10
Overall, how happy did you feel yesterday?	5.4	2.5	4.5	7.3	7.0	23.8	13.1	14.5	12.2	4.8	5.0
Overall, how contented did you feel yesterday?	5.1	2.4	4.6	7.0	7.3	23.2	13.6	14.1	12.7	5.0	4.9
Overall, how angry did you feel yesterday?	15.5	11.8	12.9	10.9	8.6	17.9	8.2	6.1	4.4	1.4	2.4
Overall, how sad did you feel yesterday?	21.3	11.9	12.0	10.2	8.0	18.1	6.3	4.8	3.4	1.5	2.4

Graph16 Average Scores of Affects Experienced Yesterday By Age

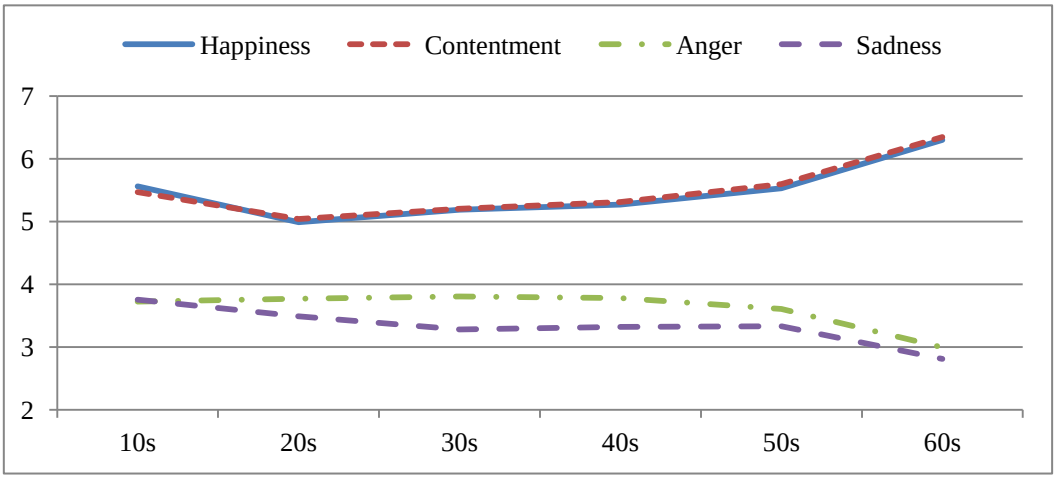
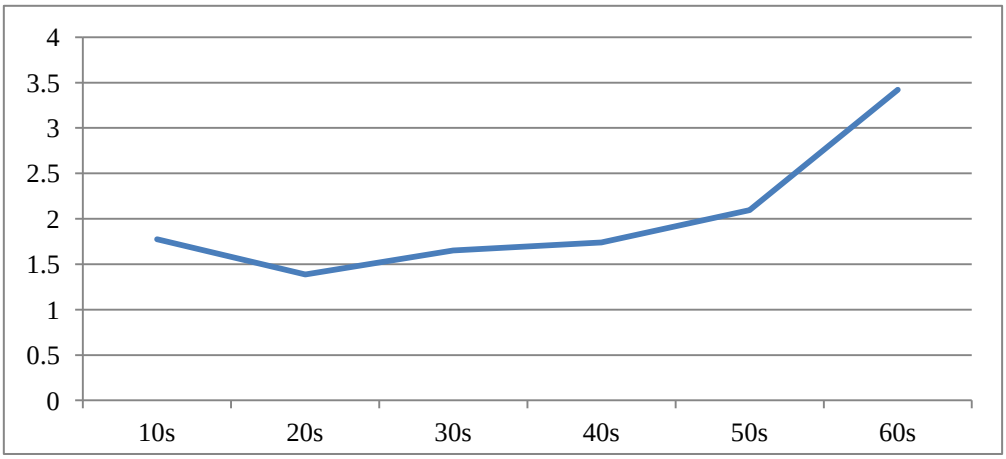


Table13 Affect Balance of Yesterday

(Difference in average scores of positive and negative affects)

Men	1.7
Women	2.6
Total	2.1

Graph17 Affect Balance of Yesterday By Age



⑨Affects experienced during past few weeks

To the question on frequency of various affects or feelings experienced in the past few weeks, many respondents indicated “calm” “sympathy” and ”kindness” as positive affects experienced often while they chose “stress” “anxiety” and “anger” as negative affects experienced often (Table 14). To perform factor analysis (principal factor analysis, orthogonal rotation) including the data from the direct-visit and self-completion questionnaires, indexes of affects were constructed for each question as follows: “none” =0, “rarely” =1, “sometimes”=2, and “often”=3 (see chapter 12 in the appendix). As a result, two factors were extracted (as listed in the descending order of factor loading, negative affects: hopeless, sadness, fear, guilt, anxiety, shame, stress, anger, frustration, jealousy, ego; positive affects: kindness, sympathy, intimacy, generosity, peacefulness, fulfillment, satisfaction, proudness; these factor loadings range from .37 to .81). Based on this result, the average scores for positive affects and for negative affects were calculated. ANOVA and regression analysis were performed to explore the effect of survey methods (direct-visit and self-completion questionnaires or online survey), sex (male or female), age (6 categories from 10s to 60) on affects (positive and negative, respectively). According to ANOVA, the main effects of survey methods, sex, and age were significant for positive affects. Combined with the result from regression analysis, it was found that positive affects were experienced more often in the direct-visit and self-completion questionnaires, among women, and among older respondents. For negative affects, the main effects of sex and survey methods were not significant, and the interaction effects between sex and age and between survey methods and age were significant, according to ANOVA. Regression analysis indicated that negative affect score was higher in the direct-visit and self-completion questionnaires, among men, and among young respondents. When affect balance score was calculated, the average score for the whole sample was 0.5, which means that they experienced positive affects more than negative affects (Table 15). By sex, women marked higher scores for affect balance during the past few weeks than men. Also, the average scores of affect balance for men and women in the online survey was not very different from those in the direct-visit and self-completion questionnaires. By age, the curve of affect balance is J-shaped with those in their 20s at the bottom, and the score among younger respondents was lower in the online survey than in the direct-visit and self-completion questionnaires (Graph 19). The correlation coefficients between the level of current happiness and affect balance were high in the online survey as follows: 0.48 for 10s, 0.61 for 20s, 0.59 for 30s, 0.61 for 40s, 0.59 for 50s, and 0.81 for 60s.

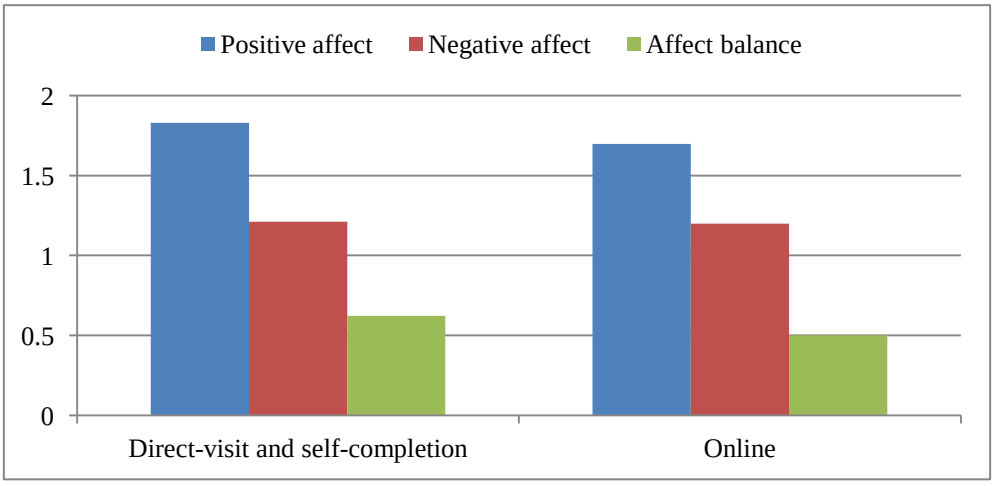
Table14 Distribution of Responses to Affects Experienced during Past Few Weeks (%)

	Often	Sometimes	Rarely	None
Proudness	25.6	42.9	26.9	4.6
Calm	4.9	24.8	46.1	24.1
Sympathy	4.2	25.3	51.0	19.5
Generosity	6.2	31.1	47.5	15.3
Peacefulness	7.4	29.0	44.6	19.1
Kindness	4.2	25.0	51.7	19.2
Intimacy	5.0	25.7	49.8	19.5
Fulfillment	9.9	32.2	41.8	16.1
Satisfaction	10.3	32.6	41.7	15.4
Indebtness	23.1	44.0	21.3	11.7
Hopeless	27.9	41.3	19.5	11.4
Sadness	18.4	48.1	24.6	8.8
Stress	7.9	33.6	32.1	26.5
Fear	37.7	40.5	16.1	5.7
Anxiety	7.4	38.7	34.2	19.7
Shame	28.4	47.1	19.1	5.4
Anger	13.6	44.8	30.3	11.2
Guilt	34.3	42.9	17.0	5.7
Ego	24.3	51.0	20.7	4.0
Jealousy	39.4	41.0	15.2	4.4
Frustration	22.8	43.7	23.3	10.3

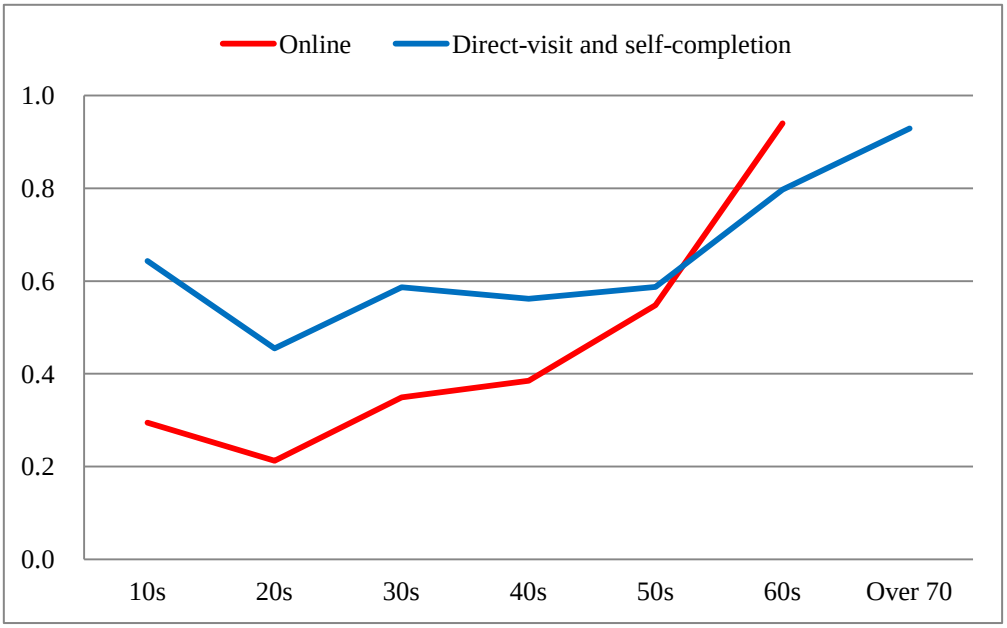
Table15 Affect Balance of Past Few Weeks

	Online			Direct-visit and self-completion		
	Positive affect	Negative affect	Affect balance	Positive affect	Negative affect	Affect balance
Men	1.6	1.2	0.4	1.8	1.2	0.6
Women	1.8	1.2	0.6	1.9	1.1	0.8
Total	1.7	1.2	0.5	1.8	1.2	0.7

Graph18 Differences in Affect By Survey (Excluding the data of respondents in their 70s)



Graph19 Affect Balance of Past Few Weeks



⑩Different aspects of psychological functioning

When asked different aspects of psychological functioning related to happiness such as positiveness and optimism, freedom in way of living, psychological resilience, belief in values of their own behaviors, and sense of accomplishment on a 0-10 scale, the average scores were relatively higher to the statement “When things go wrong in my life it generally takes me a long time to get back to normal” while lower on the statement regarding sense of accomplishment (Table 16). By sex, women marked higher scores than men. By age, the curve is J-shaped except for the statement “I am free to decide for myself how to live my life” (Graph 15). The OECD (Organization for Economic Co-operation and Development) recommends countries to ask these questions in their surveys, independently from those concerning the level of current happiness, life satisfaction, and affects, as an index that measures eudaimonia (derived from the Greek word equating happiness as the utmost human good, defined by Greek philosopher Aristotle, and it points to happiness in which values are strongly reflected). When factor analysis was performed with other variables related to happiness and affects, the factor with high loadings among questions about eudaimonia was different from the level of current happiness, life satisfaction, and affects, which suggests that what the questions concerning eudaimonia measure is to some extent independent from that of happiness and affects (see chapter 14 in the appendix).

Table16 Average Scores: Different Aspects of Psychological Functioning

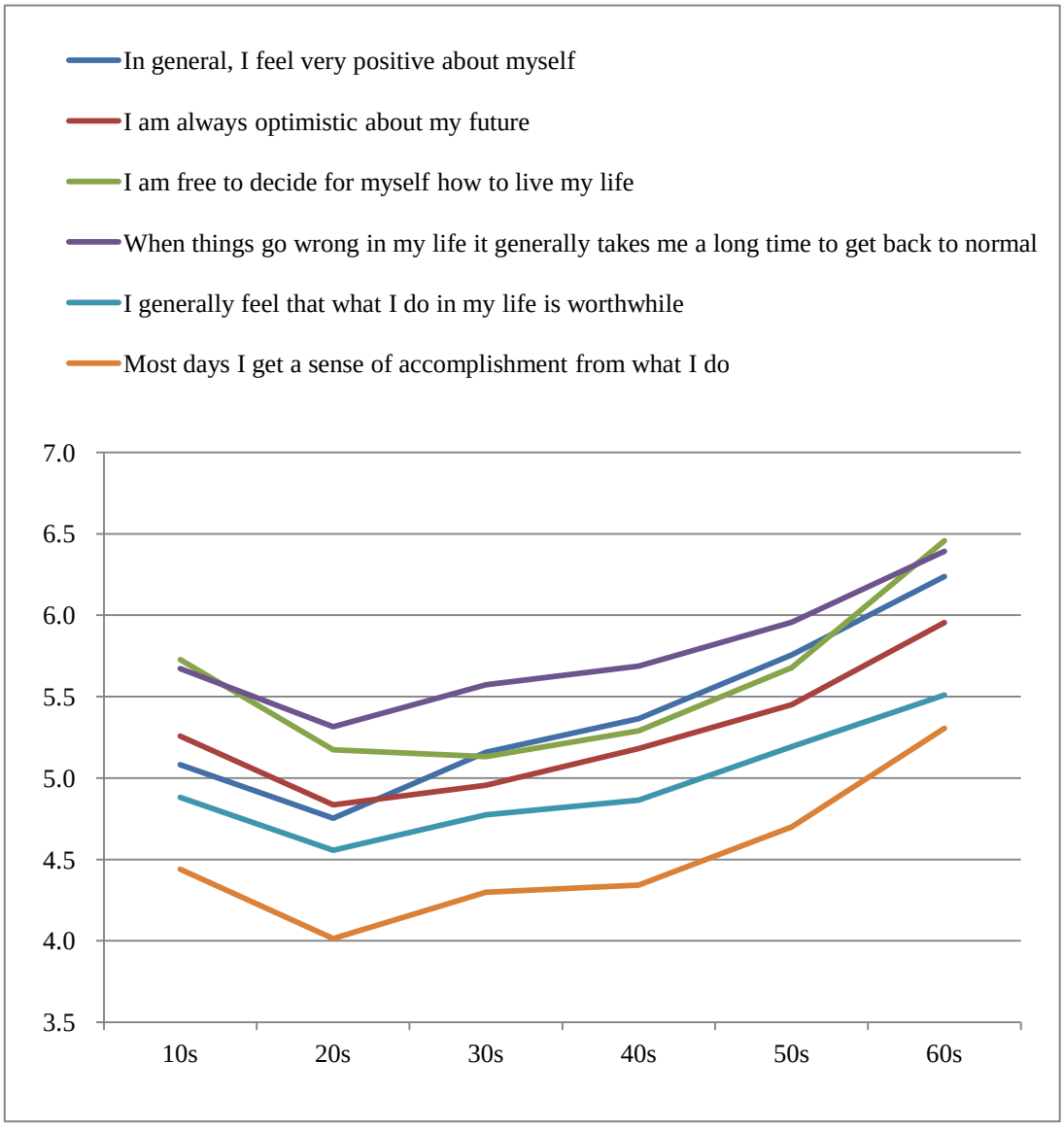
	Men	Women	Total
In general, I feel very positive about myself	5.3	5.7	5.5
I am always optimistic about my future	5.2	5.4	5.3
I am free to decide for myself how to live my life	5.5	5.7	5.6
When things go wrong in my life it generally takes me a long time to get back to normal	5.7	6.0	5.8
I generally feel that what I do in my life is worthwhile	4.9	5.1	5.0
Most days I get a sense of accomplishment from what I do	4.5	4.7	4.6

Table17 Distribution of Respondents: Different Aspects of Psychological Functioning (%)

Point	0	1	2	3	4	5	6	7	8	9	10
In general, I feel very positive about myself	4.0	2.7	5.3	8.9	8.8	21.6	13.6	13.3	10.8	4.6	6.3
I am always optimistic about my future	4.8	3.1	5.8	8.9	10.1	20.6	14.4	13.0	10.4	4.2	4.9
I am free to decide for myself how to live my life	3.9	2.7	5.0	7.2	8.3	22.2	14.4	13.4	11.3	5.5	6.2

When things go wrong in my life it generally takes me a long time to get back to normal	2.9	2.1	3.8	5.8	7.5	22.9	15.6	15.7	12.4	5.6	5.7
I generally feel that what I do in my life is worthwhile	4.9	3.2	6.1	8.6	10.1	29.2	13.9	10.7	7.4	3.0	2.9
Most days I get a sense of accomplishment from what I do	6.0	5.7	7.9	11.1	12.2	25.3	12.5	9.3	5.8	2.3	2.1

Graph20 Different Aspects of Psychological Functioning By Age



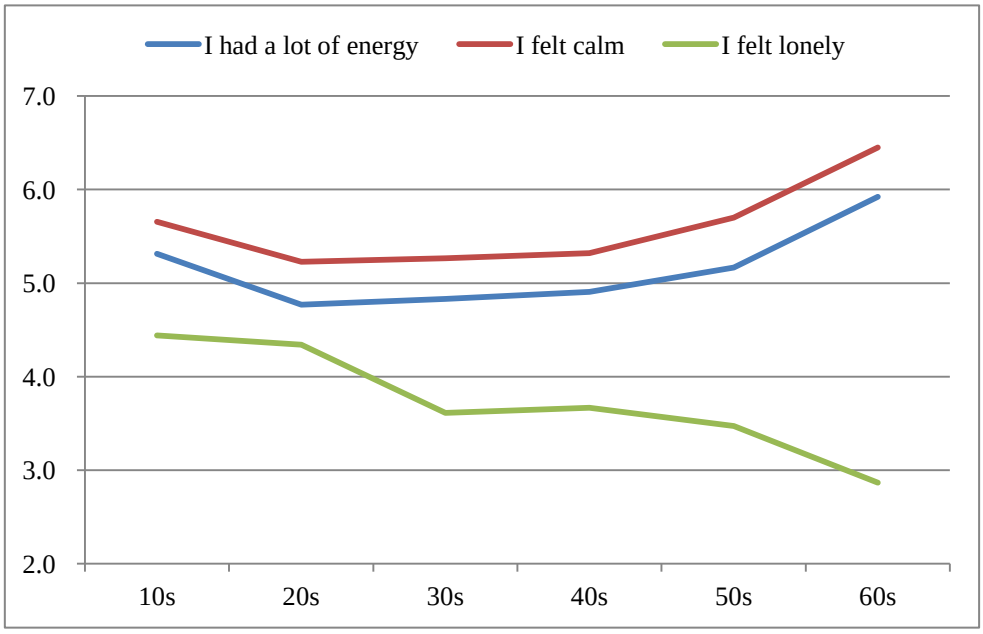
⑪Feelings experienced during the past week

When asked the frequency of feelings, such as energy, calm, and loneliness, experienced during the past week, people responded with higher scores for positive feelings, such as “I had a lot of energy” and “I felt calm” than for negative feelings such as “I felt lonely”. The OECD also recommends measuring this item as one aspect of eudaimonia. As the factor analysis in Chapter 14 in the appendix suggests, loneliness was highly correlated to negative affects. By age, similar to other variables, the curve for positive feelings hit bottom in the 20s while the average score for negative feelings, that is loneliness, was the highest among respondents in their 10s. Yet, the age difference may be caused by sampling bias, and further consideration will be needed in the future.

Table18 Feelings Experienced During The Past Week

	I had a lot of energy	I felt calm	I felt lonely
Men	5.0	5.5	4.0
Women	5.4	5.7	3.2
Total	5.2	5.6	3.6

Graph21 Feelings Experienced During the Past Week By Age



(2) Miscellaneous aspects of well-being

⑫Satisfaction with various aspects of life

To the question on satisfaction with various aspects of life on a 0-10 scale, people responded with relatively higher scores in “the amount of time you have to do the things that you like doing” and “health” while lower scores in “future security” “what you are achieving in life” and ”feeling part of your community” (Table 19). When looking at the relationship between the average scores for the level of current happiness and satisfaction with each aspect of life, it is clear that the level of current happiness increased as satisfaction with each aspect of life increased (Graph 22). This suggests that the level of current happiness was strongly correlated to satisfaction with aspects of life, in particular with “how safe you feel”.

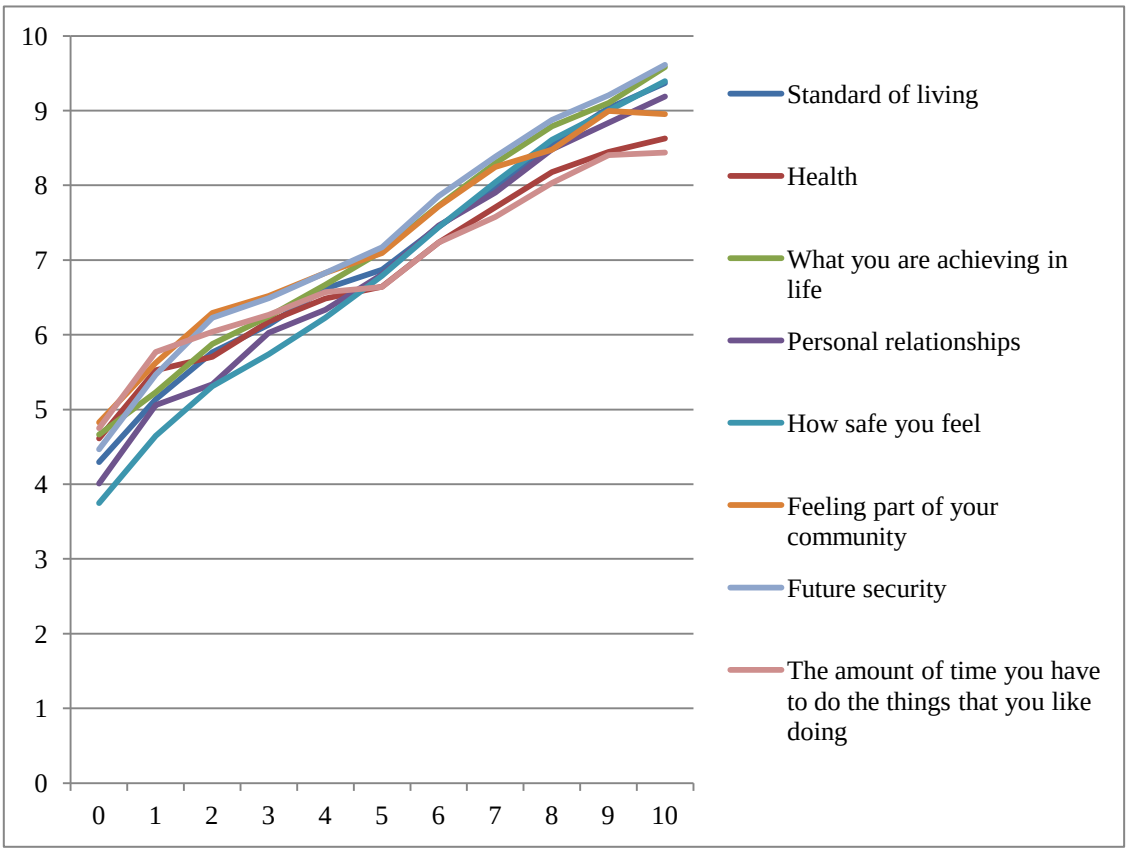
Table19 Satisfaction with Various Aspects of Life

	Men			Women			Total			
	Ave.	S.D.	No.	Ave.	S.D.	No.	Ave.	S.D	No.	R
Standard of living	4.9	2.5	5,576	5.4	2.5	4,893	5.2	2.6	10,469	0.57
Health	5.4	2.5	5,576	5.8	2.5	4,893	5.6	2.5	10,469	0.45
What you are achieving in life	4.6	2.4	5,576	4.9	2.4	4,893	4.7	2.4	10,469	0.54
Personal relationships	5.1	2.3	5,576	5.7	2.4	4,893	5.4	2.4	10,469	0.54
How safe you feel	5.2	2.5	5,576	5.7	2.5	4,893	5.4	2.5	10,469	0.63
Feeling part of your community	4.5	2.3	5,576	4.8	2.3	4,893	4.7	2.3	10,469	0.43
Future security	4.4	2.5	5,576	4.7	2.6	4,893	4.5	2.5	10,469	0.56
The amount of time you have to do the things that you like doing	5.4	2.6	5,576	5.9	2.7	4,893	5.6	2.7	10,469	0.42

*Ave.=Average, S.D.=Standard deviation, No.=Number of respondents,

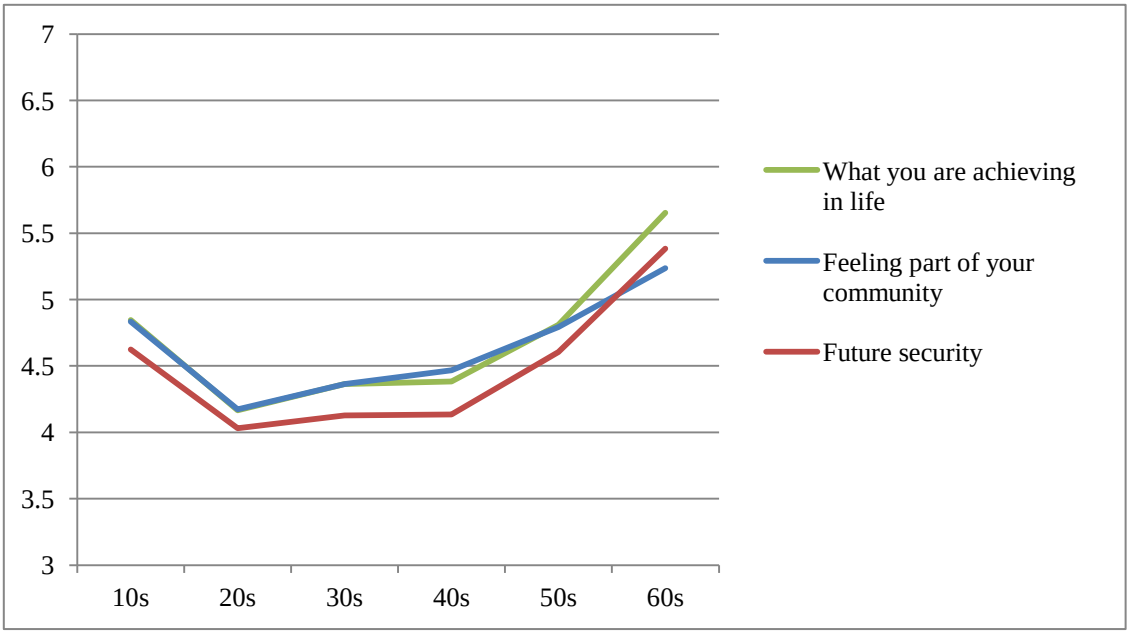
R=Correlation coefficients between the level of current happiness and satisfaction

Graph22 Relationship between the Level of Current Happiness and Satisfaction with Various Aspects of Life (Horizontal axis)

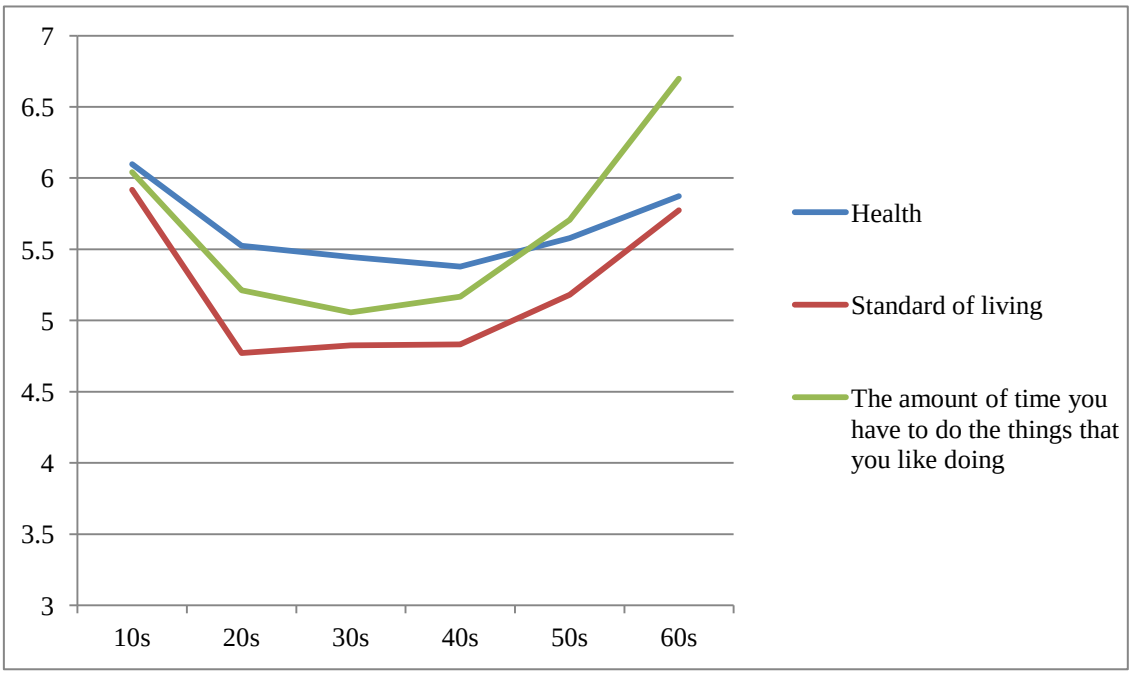


Based on factor analysis, aspects of life listed in this question were divided into three categories. The following three graphs show the relationship between age and each of these three categories. Satisfaction with "what you are achieving in life" "feeling part of your community" and "future security" were low, but they increased with age except for those in their 10s. On the other hand, the curves for "health" "standard of living" and "the amount of time you have to do the things that you like doing" were U-shaped with working generations at the bottom. The curves for "personal relationships" and "how safe you feel" were W-shaped.

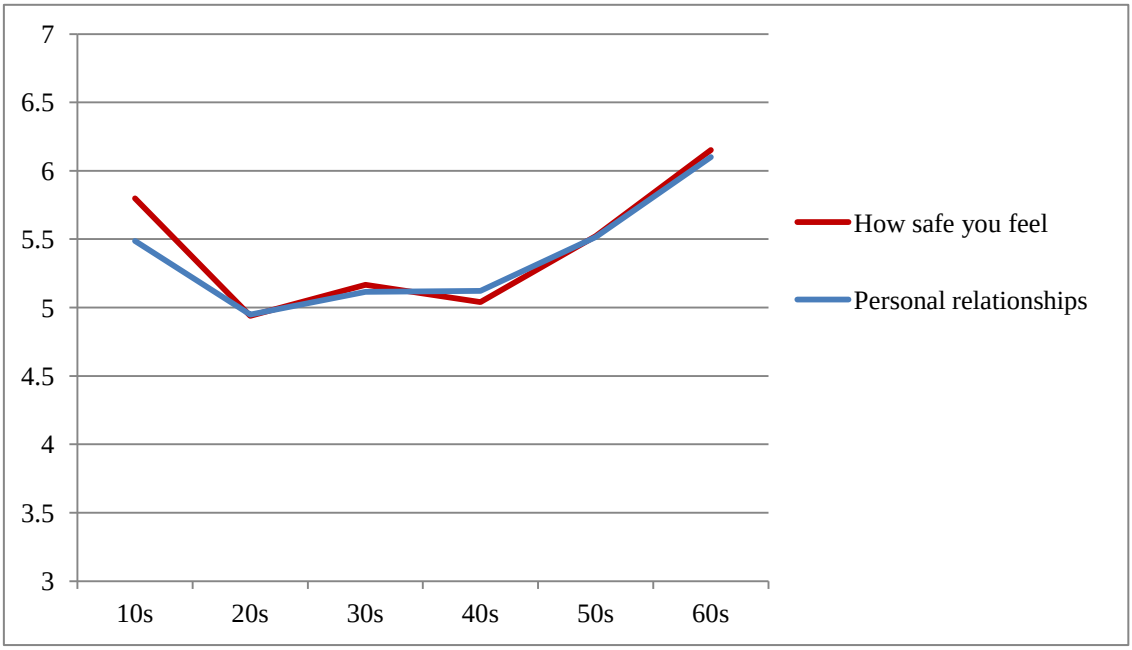
Graph23 ①Satisfaction with Various Aspects of Life By Age (What you are achieving in life, Feeling part of your community, Future security)



Graph23 ②Satisfaction with Various Aspects of Life By Age (Standard of living, Health, The amount of time you have to do the things that you like doing)



Graph23 ③Satisfaction with Various Aspects of Life By Age (How safe you feel, Personal relationships)



⑬Anxiety

When asked about the degree of anxiety over various issues which people are likely to feel anxious about, for example lonely death, safety, natural disasters, and living expenses for later in life, many respondents answered that they always feel anxious about living expenses for later in life, natural disasters, and radioactive pollution (Table 20①). Compared with the results from direct-visit and self-completion questionnaires, the level of anxiety was lower in the online survey, which is contrary to the results of level of current happiness (Table 20②).

Table20 ① Percentage of Respondents Who Feel Anxiety (%)

	Always feel anxious	Sometimes feel anxious	Neither anxious nor unconcerned	Normally do not feel anxiety	Do not feel anxious at all
Karoshi (death by overwork)	2.9	11.7	17.7	33.7	34.1
Lonely death	8.5	20.7	20.0	28.0	22.9
Unemployment	12.7	21.4	23.5	21.9	20.6
Food safety	8.7	28.7	30.8	22.7	9.1
Future for children	14.2	26.1	25.3	12.2	22.2
Safety	6.9	30.5	30.8	22.8	8.9
Natural disasters	23.2	40.5	21.1	11.0	4.2
Radioactive pollution	15.0	33.0	25.3	17.8	8.8
Living expenses for later in life (after retirement)	33.1	35.0	16.9	10.5	4.6

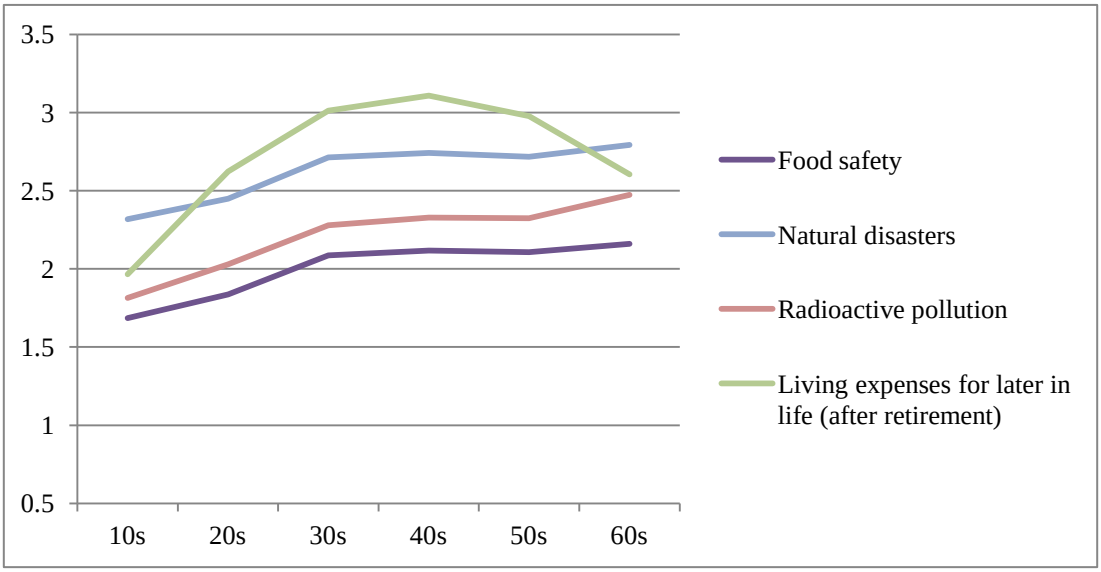
Table 20② Comparison with the Results from Direct-Visit and Self-Completion Questionnaires (%)

	Online		Direct-visit and self-completion		Gap	
	Feel anxious	Do not feel anxious	Feel anxious	Do not feel anxious	Feel anxious	Do not feel anxious
Karoshi (death by overwork)	14.5	67.8	23.4	52.6	-8.8	15.2
Lonely death	29.1	50.9	30.8	46.9	-1.6	4.0
Unemployment	34.1	42.4	34.7	41.2	-0.6	1.2
Food safety	37.4	31.8	47.0	28.9	-9.6	2.9
Future for children	40.3	34.4	52.6	22.0	-12.3	12.4
Safety	37.5	31.7	40.2	30.3	-2.7	1.5
Natural disasters	63.7	15.2	68.9	14.6	-5.2	0.5
Radioactive pollution	48.0	26.7	53.3	26.4	-5.2	0.3
Living expenses for later in life (after retirement)	68.1	15.0	72.3	13.4	-4.2	1.6

To examine the age difference in anxiety, indexes of anxiety were constructed for each question as follows: “do not feel anxious at all” =0, “normally do not feel anxious” =1, “neither anxious nor unconcerned”=2, “sometimes feel anxious”=3, and “always feel anxious”=4. Graph 24 illustrates the average scores of each index of anxiety by age. Anxiety over living expenses for later in life, which had the highest average score, peaked for those in their 40s. Anxiety over natural disasters, radioactive pollution, food safety, future for children, and safety increased with age.

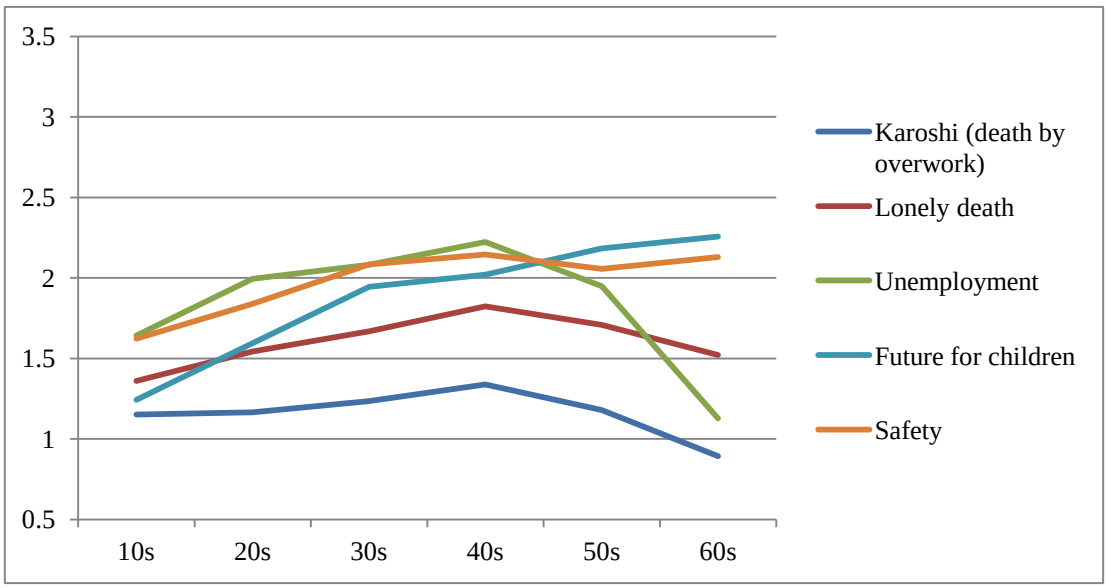
Graph24 ①Index of Anxiety By Age

(Four highest-scored items: Living expenses for later in life (after retirement) etc.)



Graph24 ②Index of Anxiety By Age

(Five lowest-scored items: Safety etc.)



In this survey, 698 respondents answered that they have received a disaster victim certificate or that they are currently taking refuge. Those who answered yes to at least one of these questions are classified here as victims of the Great East Japan Earthquake, in order to determine if there is a difference in anxiety scores between victims and non-victims. As a result, the differences in scores for radioactive pollution, natural disasters, future for children, and food safety were significant based on t-test, which implies that victims feel more anxious over these issues[4].

Table21 Differences in Anxiety between Victims and Non-Victims

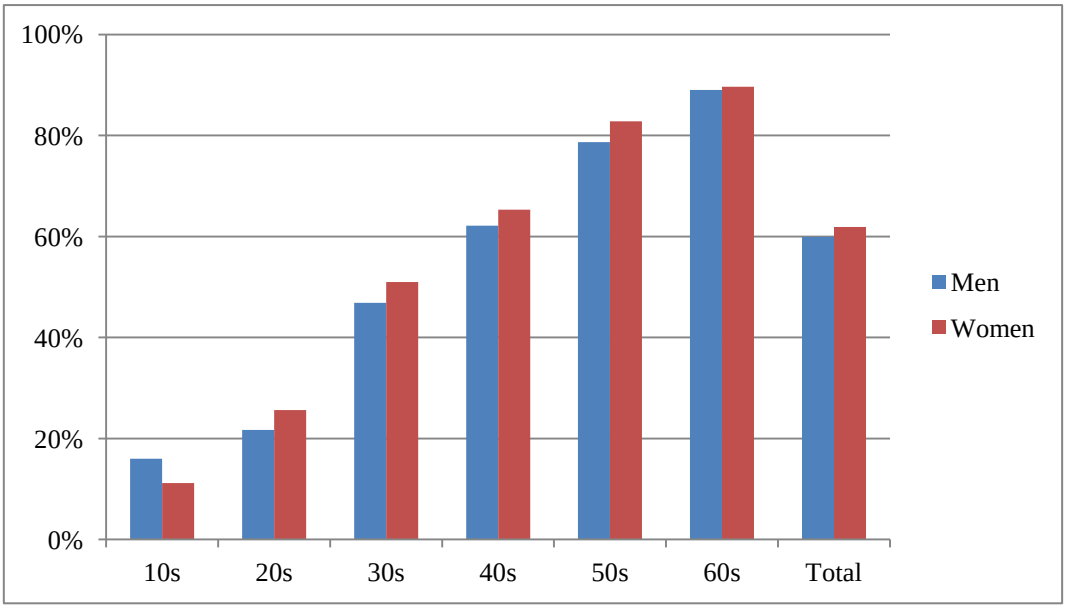
	Victims	Non-victims	Difference	Statistical Significance
Karoshi (death by overwork)	1.22	1.15	0.07	
Lonely death	1.56	1.64	-0.08	
Unemployment	1.86	1.84	0.02	
Food safety	2.18	2.04	0.14	Significant at 1% significance level
Future for children	2.16	1.97	0.19	Significant at 1% significance level
Safety	2.00	2.04	-0.04	
Natural disasters	2.93	2.66	0.27	Significant at 1% significance level
Radioactive pollution	2.76	2.24	0.52	Significant at 1% significance level
Living expenses for later in life (after retirement)	2.89	2.81	0.07	
Total	698	9,771		

[4] The differences in average scores for level of current happiness, perceived level of happiness among other family members, desired level of happiness, expected level of happiness in the future, life satisfaction, affects were not statistically significant based on t-test.

⑭Parenting experiences

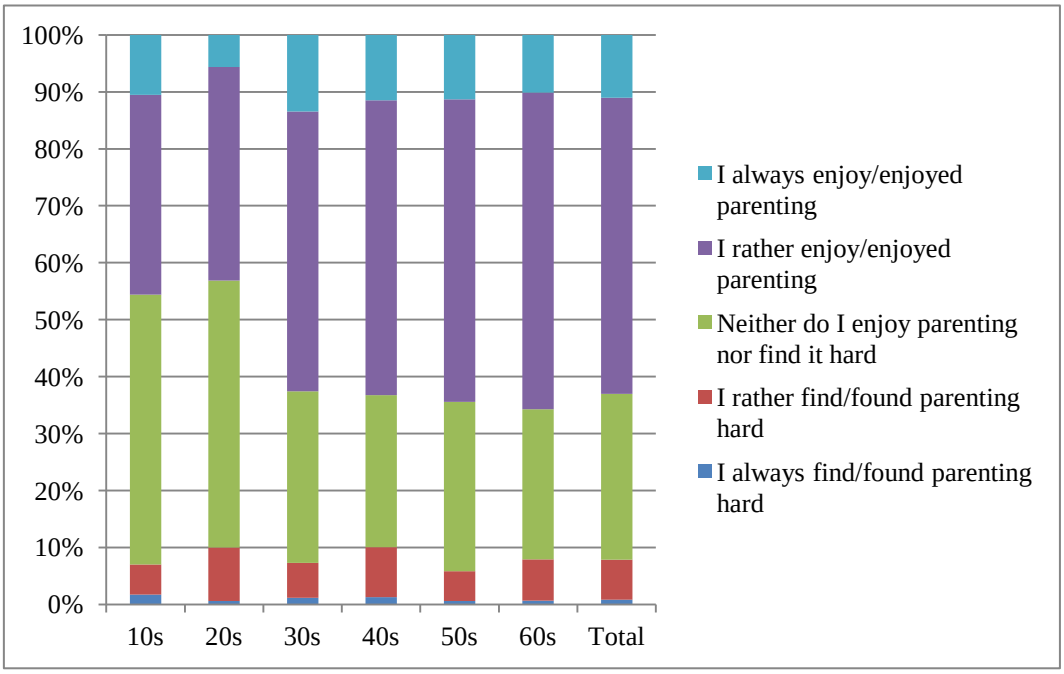
When asked about experiences in parenting, approximately 60% of respondents have experience in parenting. The percentage of this population increased with age. Among those who have experience in parenting, more than half answered that they enjoy/enjoyed parenting while 6% responded that they find/found parenting hard. By sex and age (Graph 25), many respondents in their 10s and 20s answered that they find/found parenting hard or that they neither enjoy parenting nor find it hard. Satisfaction with parenting was closely correlated to the level of current happiness. The average score for the level of current happiness among respondents who always enjoy/enjoyed parenting was above 7 while the average score among those who always find/found parenting hard was 3, which is very low (Graph 27). Indexes of parenting experiences were constructed as follows: "I always find/found parenting hard"=1, "I rather find/found parenting hard"=2, "Neither do I enjoy parenting nor find it hard"=3, "I rather enjoy/enjoyed parenting"=4, and "I always enjoy/enjoyed parenting"=5. The correlation coefficient between parenting experiences and the level of current happiness was significant at 0.32 (with a sample size of 6,368).

Graph25 Percentages of Respondents Who Have Experience in Parenting By Sex And Age

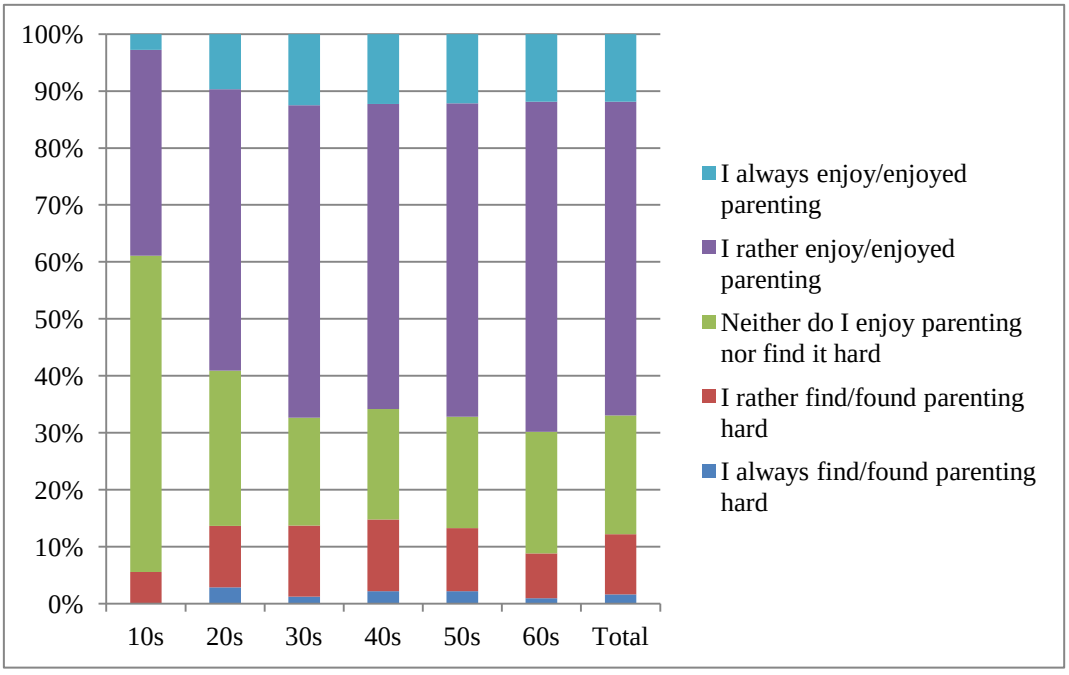


Graph26 Parenting Experiences By Sex and Age

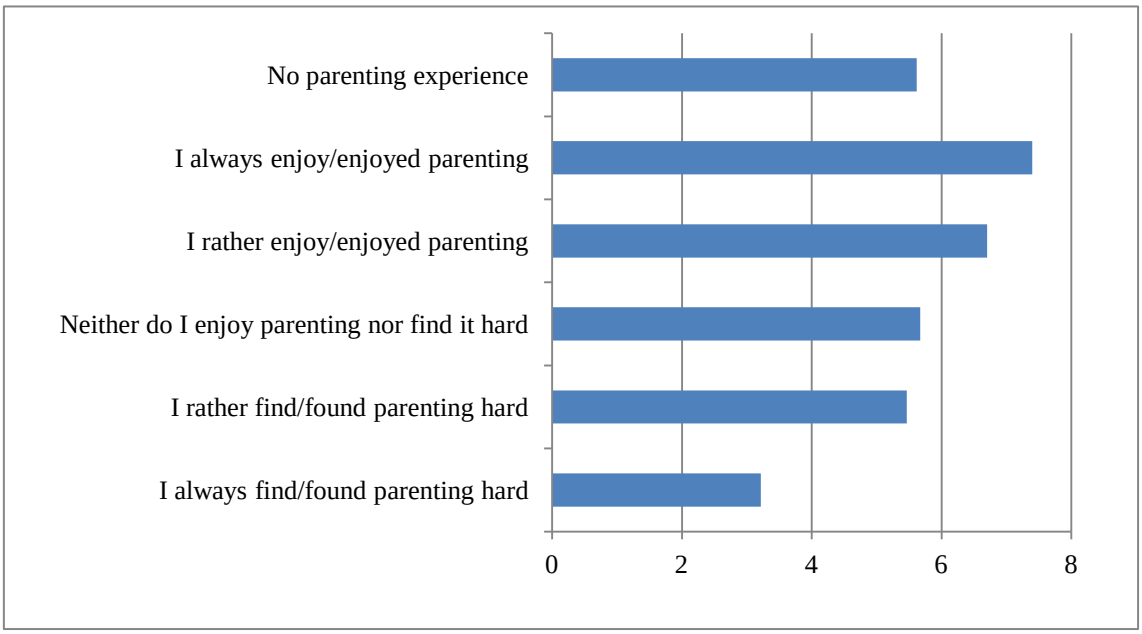
①Men



②Women



Graph27 Satisfaction with Parenting and Level of Current Happiness



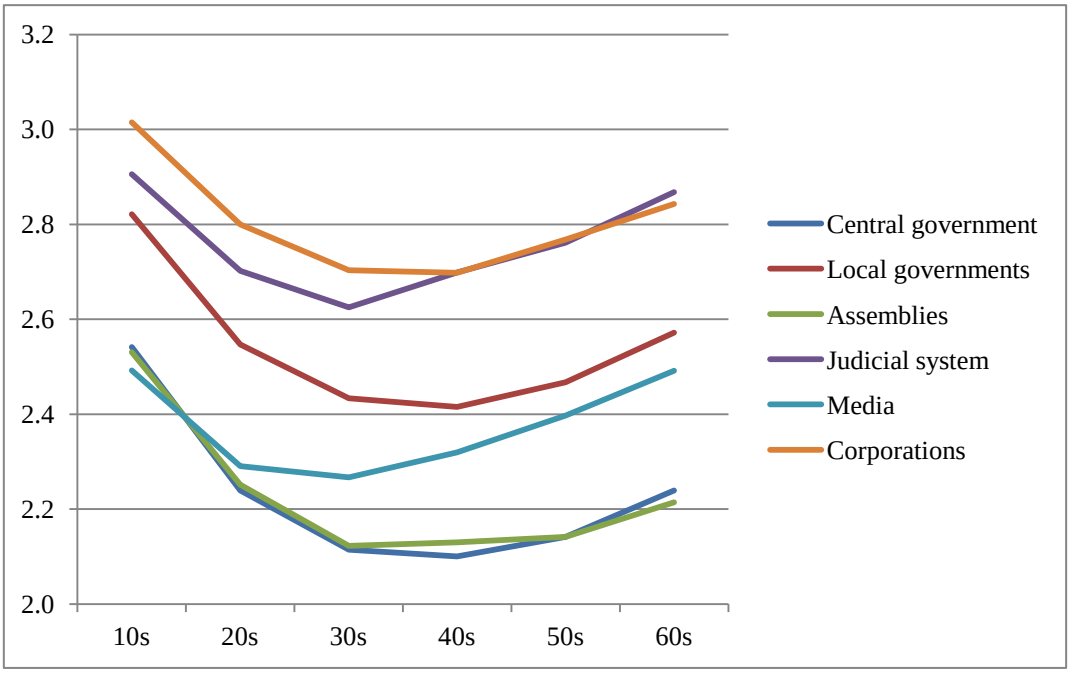
⑮Trust in institutions

When asked their degree of trust in institutions such as central and local governments, more than half of the respondents answered that they do not believe in the central government, assemblies, and media (Table 22). To examine age differences, indexes of trust in institutions were constructed as follows: “Cannot be trusted at all”=1, “cannot very be trusted”=2, “neither can nor cannot be trusted”=3, “can be trusted somewhat”=4, and “can be trusted”=5. Graph 28 illustrates indexes of trust in institutions by age, and the curve is U-shaped with those in their 30s and 40s at the bottom. When contrasting the level of current happiness with the scores for trust in institutions, results suggest that the level of current happiness is high among those who strongly trust in institutions (Graph 29). The correlation coefficients between the level of current happiness and trust in institutions were all significant at the 1% significance level: 0.1488 for central government, 0.1848 for local governments, 0.1436 for assemblies, 0.1978 for judicial system, 0.1268 for media, and 0.2081 for corporations.

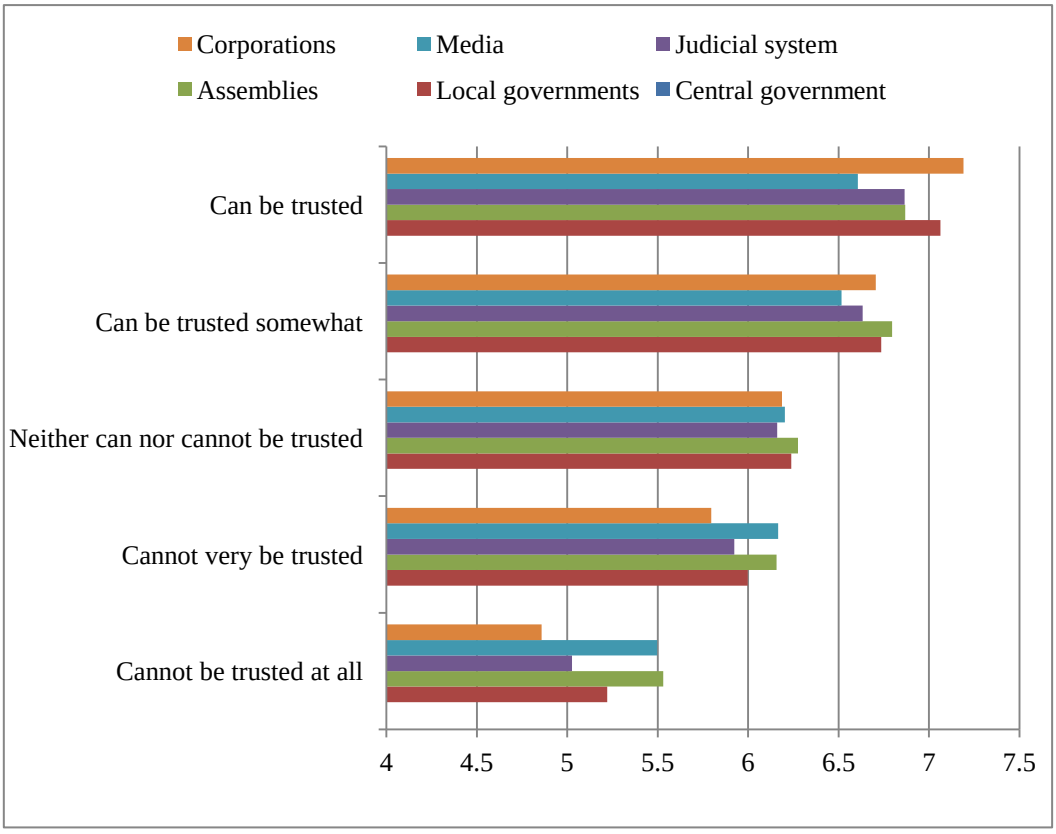
Table22 Trust in Institutions (%)

	Cannot be trusted at all	Cannot very be trusted	Neither can nor cannot be trusted	Can be trusted somewhat	Can be trusted	Cannot be trusted	Can be trusted
Central government	26.1	36.9	29.5	7.1	0.4	63.0	7.5
Local governments	14.9	33.9	37.5	13.1	0.6	48.8	13.7
Assemblies	24.8	37.1	32.7	5.1	0.4	61.9	5.4
Judicial system	11.8	25.6	40.4	20.6	1.6	37.4	22.2
Media	21.3	31.8	36.3	10.1	0.5	53.0	10.7
Corporations	8.6	22.8	51.6	16.3	0.8	31.4	17.1

Graph28 Trust in Institutions By Age



Graph29 Trust in Institutions and Level of Current Happiness



⑯Trust in society (social trust)

When asked their degree of social trust, more respondents disagreed than agreed with the statement “almost everyone is basically honest” (Table 23). On the other hand, more respondents agreed than disagreed with the statement “almost everyone is basically good-natured and kind.” More than half of the respondents agreed with the statement “I see myself as one who tends to trust people” and the statement “most people trust others if the others trust them.”

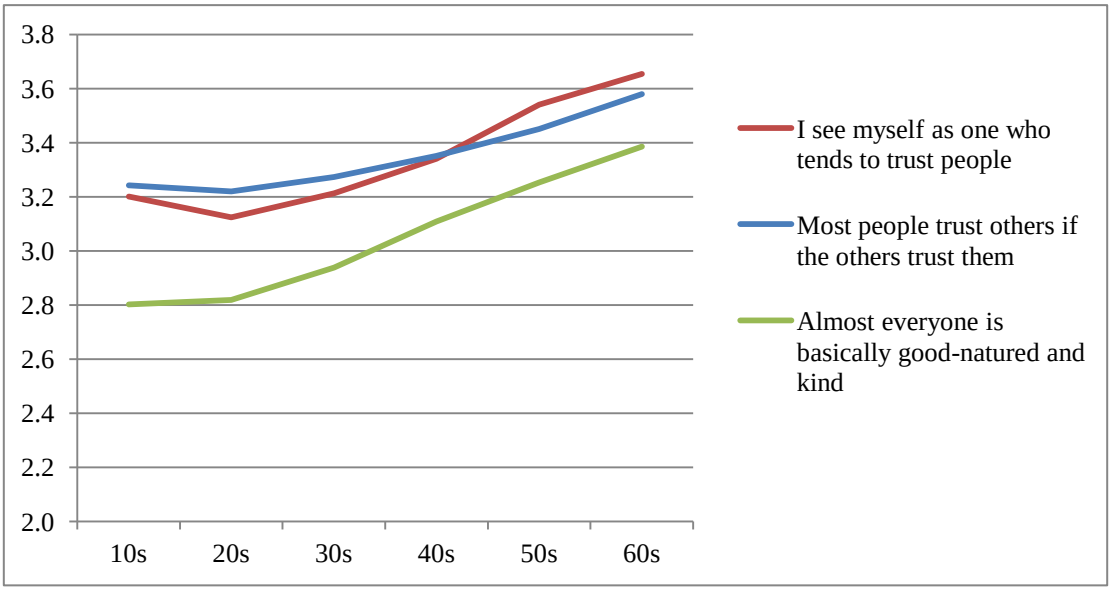
Table23 Social Trust

	Strongly disagree	Normally disagree	Neither agree nor disagree	Normally agree	Strongly agree	Agree	Disagree
Almost everyone is basically honest	10.0	25.2	33.7	29.9	1.2	35.2	31.1
I see myself as one who tends to trust people	4.6	12.8	28.5	48.2	6.0	17.3	54.2
Almost everyone is basically good-natured and kind	6.4	17.4	37.5	36.9	1.8	23.8	38.7
Almost everyone trust in others	6.5	22.8	43.9	25.8	1.1	29.3	26.9
Almost everyone can be trusted	10.2	25.0	41.7	22.0	1.0	35.2	23.1
Most people trust others if the others trust them	4.2	11.1	33.1	45.8	5.8	15.3	51.6
There are many hypocrites in society	2.3	15.0	49.3	24.7	8.8	17.3	33.5

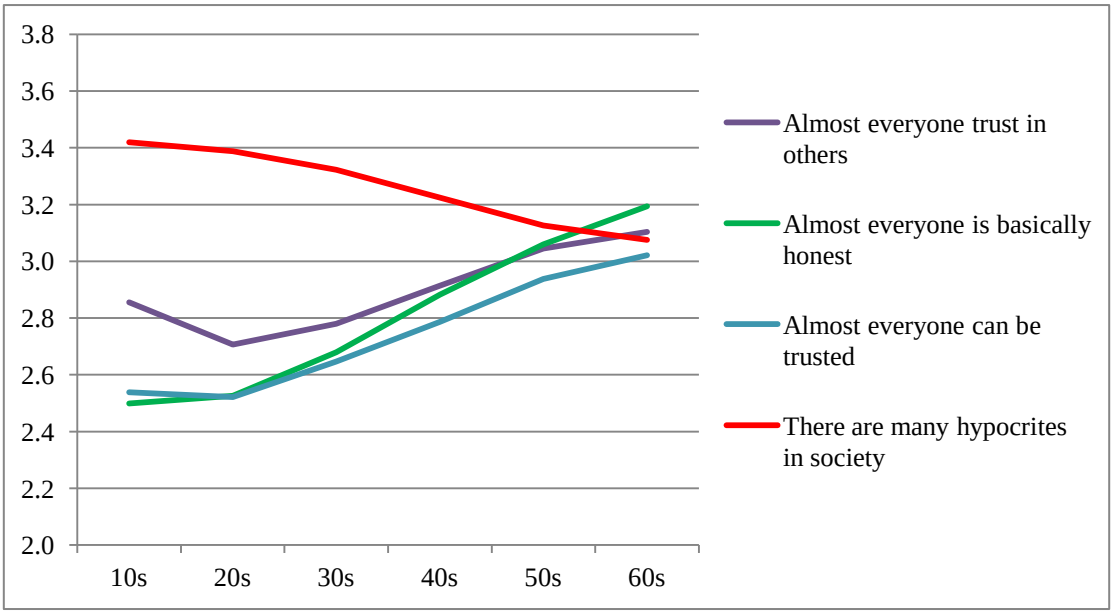
To examine age differences, indexes of social trust were constructed as follows: “Strongly disagree”=1, “normally disagree”=2, “neither agree nor disagree”=3, “normally agree”=4, and “strongly agree”=5. It indicates that social trust generally increases with age, except the negative question “there are many hypocrites in society.”

Graph30 Index of Social Trust By Age

①Three highest-scored items

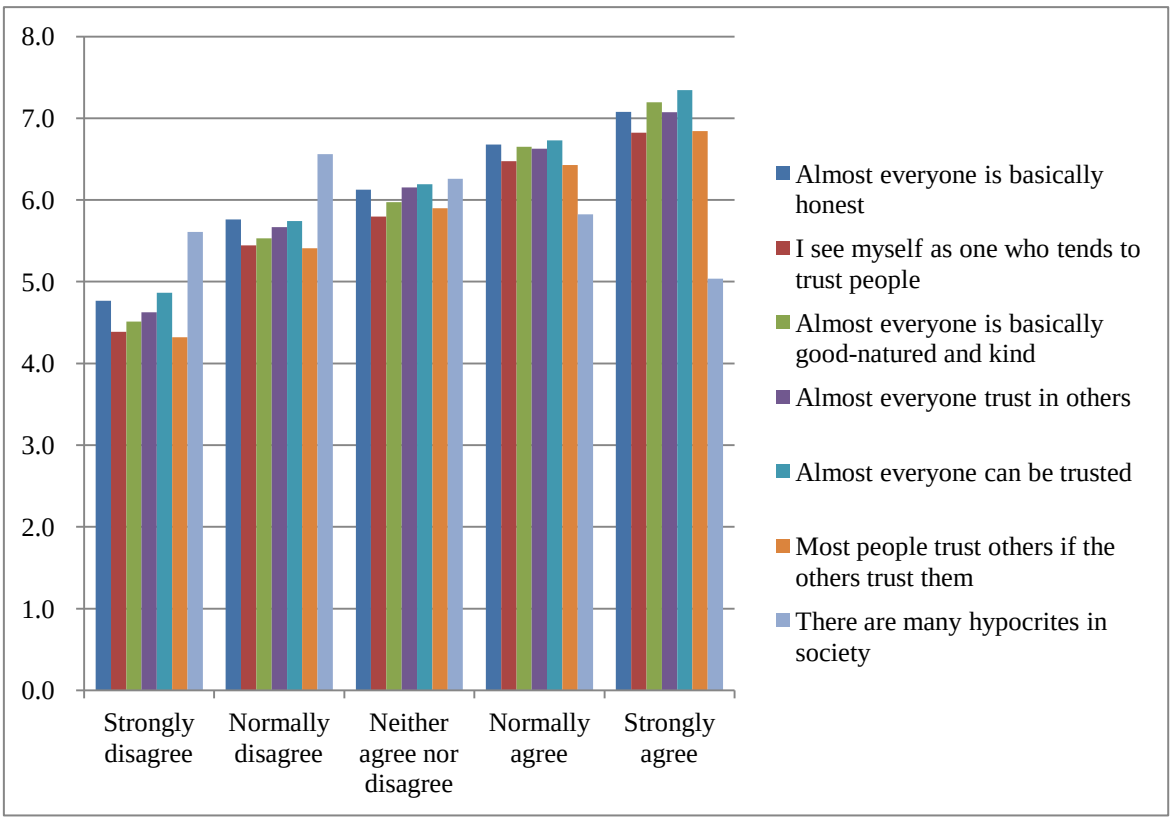


②Four lowest-scored items



When looking at the level of current happiness contrasted with the degree of social trust, Graph 31 indicates that social trust is correlated to the level of current happiness, except when it comes to the statement "there are many hypocrites in society." The correlation coefficients between each question about social trust and the level of current happiness were all significant (at the 1% significance level) and ranged from 0.23 to 0.27, except for the statement "there are many hypocrites in society." The correlation coefficient between this question and the level of current happiness was -0.15.

Graph31 Social Trust and Level of Current Happiness



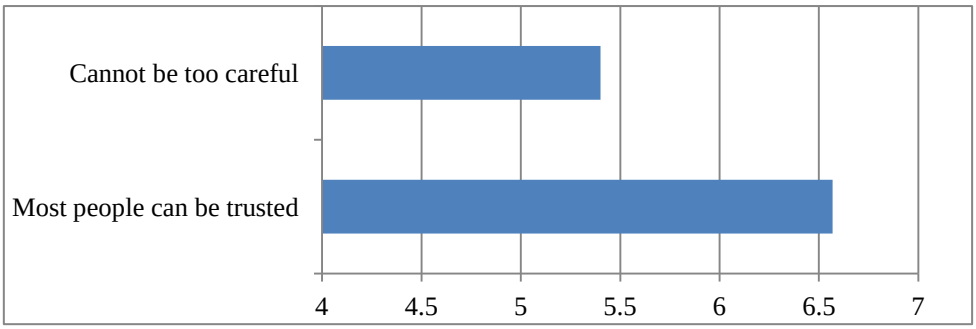
⑰Trust in people

In addition, the survey asked whether most people can be trusted or we cannot be too careful in dealing with people. Slightly more respondents chose “most people can be trusted” over “cannot be too careful” (Table 24). When it comes to the relationship with the level of current happiness, the level of current happiness was higher among those who answered that most people can be trusted. When ANOVA was performed to determine the effect of sex, age and trust in people on the level of current happiness (see chapter 15 in the appendix), the main effect of trust in people was significant (at the 1% significance level). This effect remained significant after considering age and sex.

Table24 Trust in People

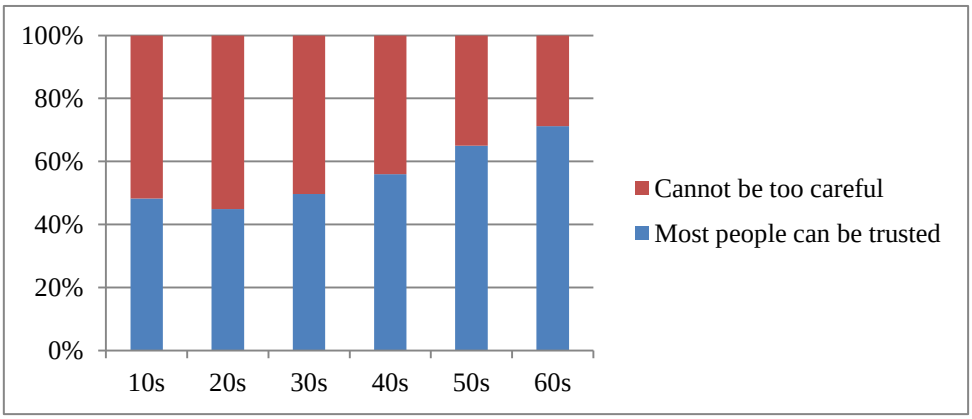
	Men	Women	Total
Most people can be trusted	55.3%	60.5%	57.7%
Cannot be too careful	44.7%	39.5%	42.3%

Graph32 Trust in People and Level of Current Happiness



When looking at age differences in the distribution of responses to trust in relationships, results imply that more respondents answered that most people can be trusted among older generations (Graph 33).

Graph33 Trust in People By Age



⑱Self-perceived usefulness

When asked their degree of self-perceived usefulness and sense of belonging (ibasho), for example “I feel someone is interested in me” “I feel I am useful” and “I feel I have my own role”, more respondents answered that the statement “applies” than that it “does not apply” for all except the statement “I feel someone is interested in me” (Table 25). In particular, more than half of the respondents agreed with the statement “I feel I have my own role.”

Table25 Distribution of Responses to Self-Perceived Usefulness (%)

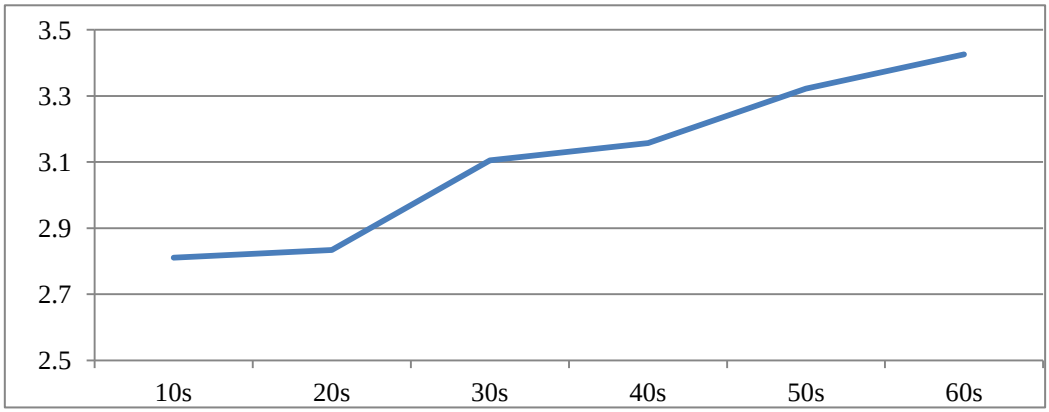
	Does not apply at all	Normally does not apply	I am not sure	Normally applies	Strongly applies	Apply	Do not apply
I feel someone is interested in me	9.5	22.5	39.3	25.8	2.9	32.0	28.7
Someone feels empty without me	10.3	17.7	31.8	32.5	7.7	28.0	40.2
I feel I am needed	8.0	14.5	31.4	37.6	8.6	22.5	46.2
I feel I am useful	8.2	14.9	33.6	36.8	6.4	23.1	43.2
I feel I have my own role	7.2	11.9	27.3	43.7	9.9	19.1	53.6
Someone will be in trouble without me	8.9	14.8	30.3	35.7	10.4	23.7	46.1
I feel I am accepted by others	8.3	14.3	37.4	33.4	6.6	22.6	40.0

Average scores for all of the statements above were calculated as indexes of self-usefulness as follows: “does not apply at all”=1, “normally does not apply”=2, “I am not sure”=3, “normally applies”=4, and “strongly applies”=5. By sex, women marked higher scores than men. By age, the score of self-usefulness increased with age.

Table26 Self-Perceived Usefulness

Men	3.0
Women	3.3
Total	3.2

Graph34 Self-Perceived Usefulness By Age



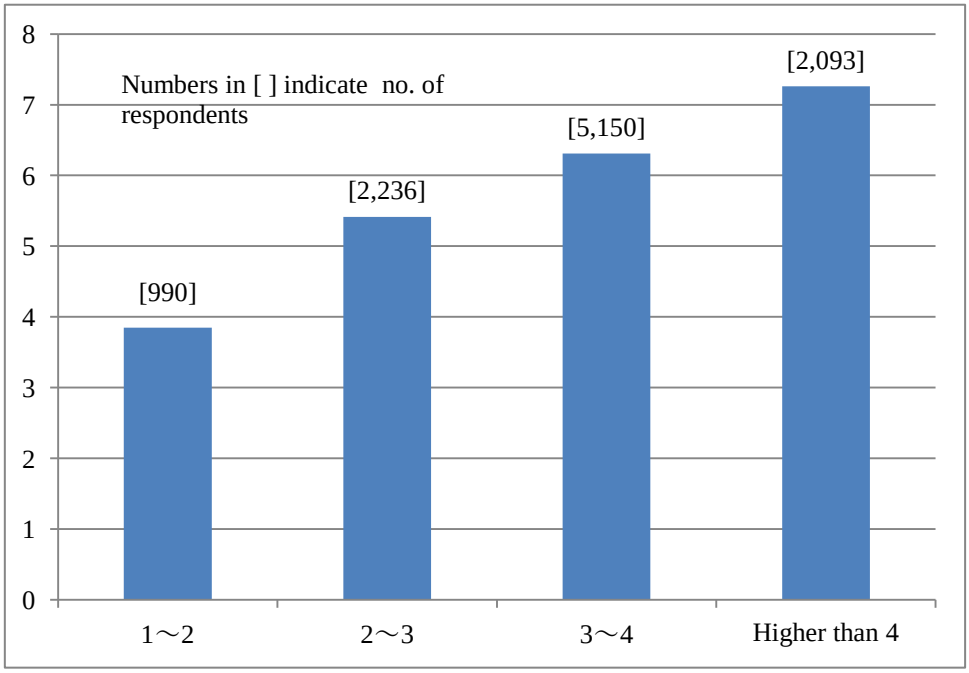
By employment status, the score of self-usefulness was lower among young people who are not in labor force, fully unemployed people, househusbands, and students while higher among employees and housewives.

Table27 Self-Perceived Usefulness By Employment Status

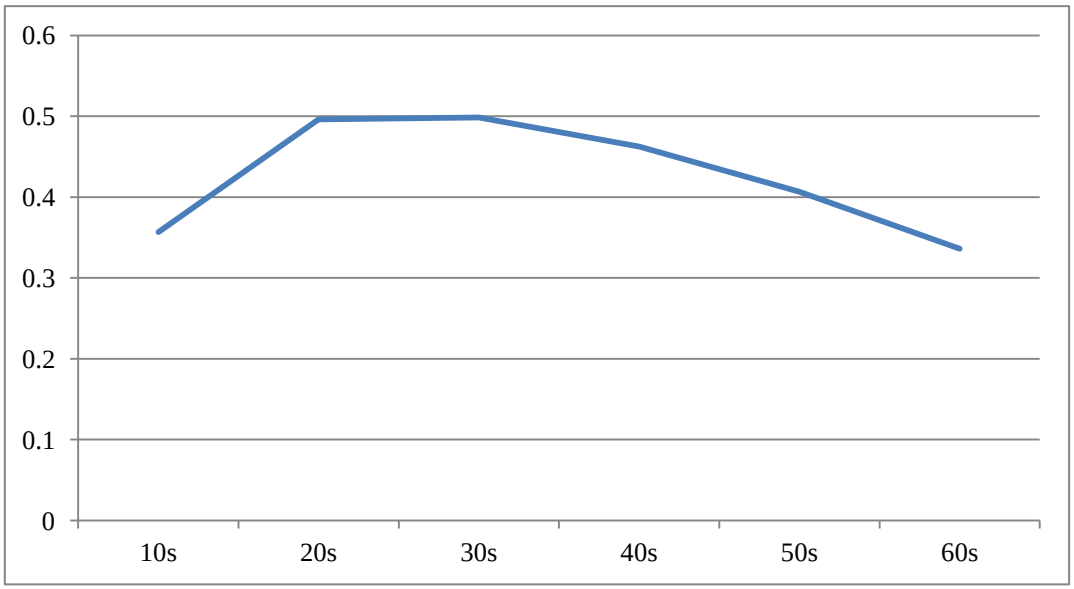
	Men		Women		Total	
	Average	No. of Respondents	Average	No. of Respondents	Average	No. of Respondents
Unemployed	2.5	92	2.7	45	2.6	137
Housewives/husbands	2.6	25	3.5	858	3.5	883
Students	2.8	279	2.9	188	2.8	467
Those not in labor force etc. (including retired people)	3.0	473	3.0	125	3.0	598
Under 30s	1.9	32	2.1	24	2.0	56
Over 40s	3.1	441	3.2	101	3.1	542
Employees	3.1	4,292	3.3	2,590	3.2	6,882
Total (including those who were unable to be classified)	3.1	5,161	3.3	3,806	3.2	8,967

From Graph 35, which shows the level of current happiness contrasted with the level of self-usefulness, it is clear that these two variables were correlated. The correlation coefficients among those in their 20s and 30s were particularly large as 0.5 (Graph 36).

Graph35 Level of Current Happiness By Self-Perceived Usefulness Score



Graph36 Correlation Coefficients between Level of Current Happiness and Self-Perceived Usefulness By Age



⑲Social support

When asked about different situations whether they can receive social support, more than half of the respondents agreed with “he/she cheers me up when I am feeling down” “When I have something to be happy about, he/she gets excited as if it happened to them” and “he/she accepts me as I am including my weakness and strengths.” (Table 28)

Table28 Percentages of Respondents to Social Support (%)

	It is definitely not the case	It is probably not the case	I am not sure	It is probably the case	It is certainly the case	It is not the case	It is the case
He/she cheers me up when I am feeling down	3.4	9.6	27.1	43.7	16.2	13.0	59.9
When I have something to be happy about, he/she gets excited as if it happened to them	3.2	8.9	29.2	43.3	15.5	12.0	58.8
He/she solves the problem when I cannot do anything	5.0	13.5	38.2	34.4	8.9	18.5	43.3
When I am feeling down, he/she realizes promptly, and takes care of me	5.2	14.0	35.9	35.1	9.8	19.2	45.0
He/she always understands how I feel	5.6	13.5	37.3	33.8	9.8	19.1	43.6
He/she accepts me as I am including my weakness and strengths	3.9	8.3	31.1	41.0	15.8	12.2	56.7

As an index of social support (Social Support Scale), average scores of the responses to all the statements above were calculated as follows: “It is definitely not the case”=1, “It is probably not the case”=2, “I am not sure”=3, “It is probably the case”=4, and “It is certainly the case”=5. Additionally, ANOVA was performed to examine the effect of survey methods, sex, and age on the general support scale (see chapter 16 in the appendix). The main effect of survey methods was significant. Compared with the results from direct-visit and self-completion questionnaires, there were less respondents who answered “It is the case” to all of the statements, which means that expectation in receiving social support was lower in the online survey (Table 29).

Table29 Comparisons of Responses in Direct-Visit and Self-Completion Questionnaires and Online Survey (%)

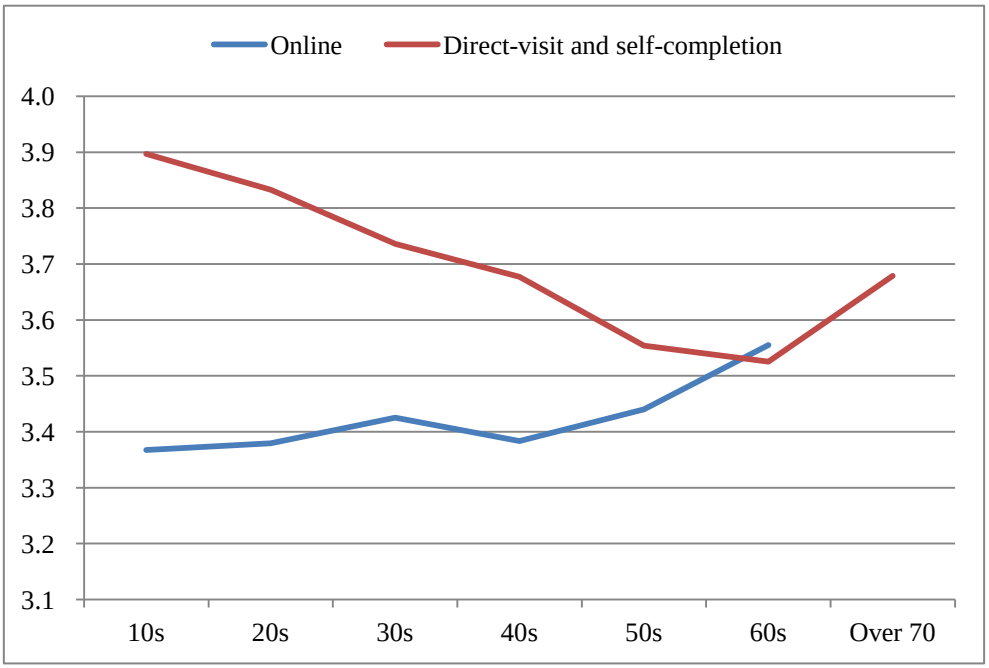
	Online		Direct-visit and self-completion	
	It is not the case	It is the case	It is not the case	It is the case
He/she cheers me up when I am feeling down	13.0	59.9	7.0	65.8
When I have something to be happy about, he/she gets excited as if it happened to them	12.0	58.8	6.8	67.3
He/she solves the problem when I cannot do anything	18.5	43.3	14.2	49.8
When I am feeling down, he/she realizes promptly, and takes care of me	19.2	45.0	11.6	55.3
He/she always understands how I feel	19.1	43.6	12.0	54.0
He/she accepts me as I am including my weakness and strengths	12.2	56.7	7.9	65.4

By sex, women marked higher scores than men, which was similar to the results from direct-visit and self-completion questionnaires (the interaction effect between sex and survey methods was not significant)(Table 30). By age, expectation for social support increased with age in the online survey while its curve is J-shaped with those in their 60s at the bottom in the direct-visit and self-completion questionnaires. Thus, these results were very different, and the interaction effect between age and survey methods was significant (Graph 37). Graph 38 shows the correlation coefficients between social support and the level of current happiness by age. Although all of the correlation coefficients were significant, there were no large differences by age in the direct-visit and self-completion questionnaires while they peaked at those in their 30s in the online survey.

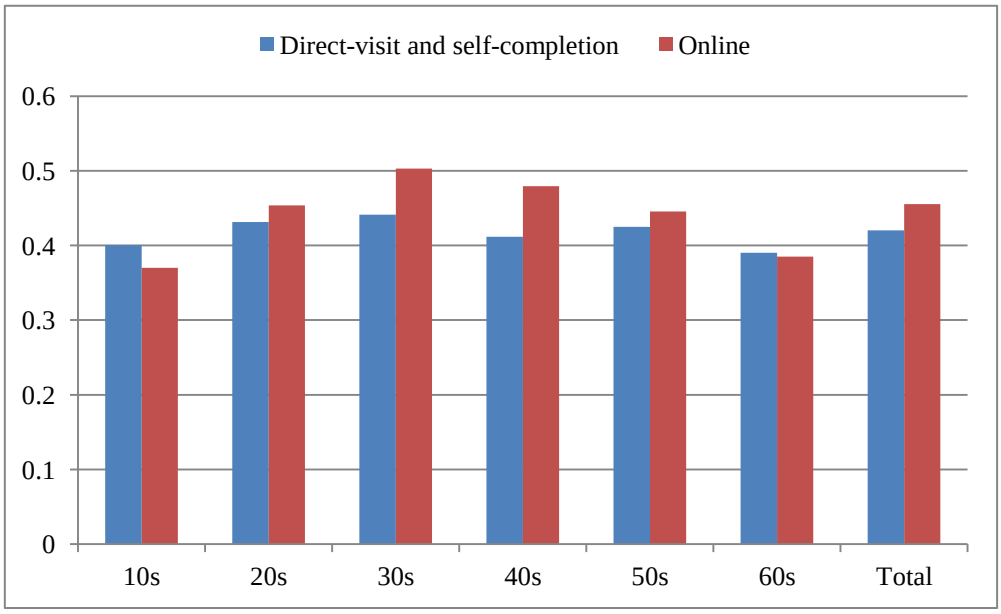
Table30 Social Support Scale

	Men	Women	Total
Direct-visit and self-completion	3.5	3.8	3.7
Online	3.3	3.6	3.4

Graph37 Social Support Scale By Age



Graph38 Correlation Coefficients between Level of Current Happiness and Social Support Scale By Survey Method and Age



⑳NEET and Hikikomori (Shut-ins)

To explore psychological aspects of NEET and Hikikomori (shut-ins), the survey included 28 questions that investigate preference for a part time freelance lifestyle, low self-efficacy, and unclear goals for the future. The results are shown below.

Table31 Percentage of Responses to NEET-Hikikomori Scale

	Completely disagree	Disagree	Neither agree nor disagree	Agree	Completely agree
I think that a person who does not work upon graduating will become lazy	3.2	11.4	23.3	44.9	17.2
Upon graduating, I don't think it is necessary to find a job immediately	10.1	32.1	36.4	18.9	2.4
Upon graduating, I would like to do work that comes with responsibilities	6.2	13.9	40.3	32.8	6.8
Upon graduating, I think that to work is to fulfill one's duty to society	3.9	12.2	34.2	39.6	10.1
Upon graduating, I would like to avoid getting a job in a very formal kind of full time position	5.4	21.0	44.2	22.9	6.4
I cannot find the meaning in working after graduating	11.9	34.6	37.2	12.7	3.6
Upon graduating, I don’t think it is necessary to pour myself into my work to the extent of sacrificing my private life	3.1	15.7	39.9	31.3	10.1
Upon graduating, I think it is necessary to have a job in order to sufficiently be able to fulfill one’s talents	2.5	9.1	39.5	39.7	9.3
I don’t quite know what I want to do in the future	8.6	22.4	39.6	20.9	8.6
Upon graduating, since I want to prioritize my own preferred lifestyle, it would be better to lead a part time freelance lifestyle (than to get a formal full time job)	28.4	32.6	31.0	6.6	1.5
Upon graduating, since I can rely on my parents to provide for my basic needs, I want to try to have all kinds of fun	45.0	27.0	21.3	5.8	0.9
Upon graduating, obtaining stability and a high earning is not that important to me	24.3	41.5	26.6	6.3	1.4
My impression of the work of a regular full-time employee is that it is intense and just seems harsh	19.4	34.9	30.0	12.7	3.1
I think that my knowledge and skills are at low levels	10.0	29.5	39.2	16.0	5.4
I can do just as much as anybody else and I think I will be useful to society	3.8	12.2	40.8	37.7	5.6
Whether it is someone I don’t like or someone who is difficult to deal with, I make an effort to get along with people	4.7	14.8	35.1	40.5	5.0
When I have some trouble to deal with, I have someone I can talk to	5.3	11.8	32.6	40.7	9.6

It is necessary to study now for what may come after I get a job	1.3	3.3	20.5	49.3	25.5
My social skills are low, and I am not good at relating to others	8.7	25.3	34.8	21.5	9.7
I feel that I belong somewhere	7.6	17.9	46.3	24.5	3.6
I feel that communicating with others is hopelessly difficult for me	7.8	30.0	35.7	19.8	6.7
Mingling with others is exhausting for me	5.3	23.5	35.6	27.6	8.1
I don't have confidence in myself	6.5	26.3	35.4	21.5	10.3
I feel like I don't have a clear future prospect	5.0	21.2	36.6	26.8	10.4
I don't have too many friends who I can go out with or call	9.5	27.7	31.4	23.1	8.4
There are times when I think that I am not needed by society	9.0	29.7	39.9	15.7	5.7
I think that my basic abilities are low	13.3	34.0	32.8	14.3	5.7
My nights and days are reversed cycled; I stay up all night, wake up in the afternoons, and eat irregularly	38.5	22.7	26.1	8.9	3.9

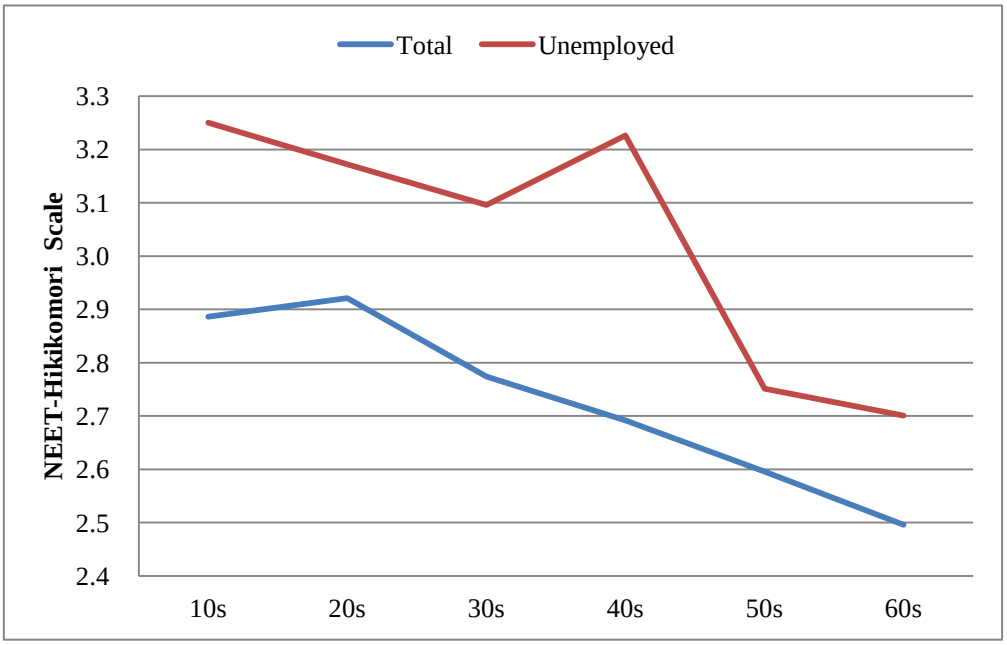
Indexes of NEET and Hikikomori were constructed as follows: "Completely disagree"=1, "disagree"=2, "Neither disagree nor agree"=3, "agree"=4, and "completely agree"=5. After reversely scoring the answers to some questions[5], average scores were calculated as NEET-Hikikomori Scale. Table 32 shows the average scores for men and women, and it suggests that sex did not have any effect on NEET-Hikikomori Scale. Graph 39 indicates that the average score decreased with age. NEET-Hikikomori Scale was high among the unemployed, and it decreased with age; however, careful interpretation about this result is needed because the sample size of the unemployed was only 137.

Table32 NEET-Hikikomori Scale By Age

	Average	Standard Deviation	No. of respondents
Men	2.7	0.5	5,576
Women	2.7	0.5	4,893
Total	2.7	0.5	10,469

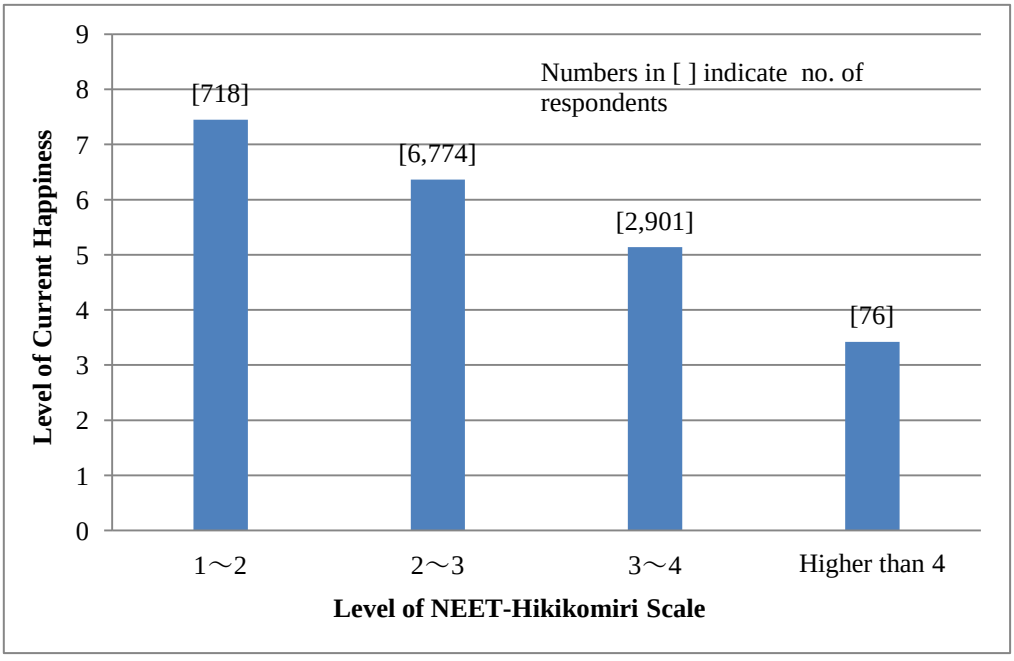
[5] 9 questions: "I think that a person who does not work upon graduating will become lazy" "Upon graduating, I would like to do work that comes with responsibilities" "Upon graduating, I think that to work is to fulfill one's duty to society" "Upon graduating, I think it is necessary to have a job in order to sufficiently be able to fulfill one's talents" "I can do just as much as anybody else and I think I will be useful to society" "Whether it is someone I don't like or someone who is difficult to deal with, I make an effort to get along with people" "When I have some trouble to deal with, I have someone I can talk to" "It is necessary to study now for what may come after I get a job" "
I feel that I belong somewhere"

Graph39 NEET-Hikikomori Scale By Age

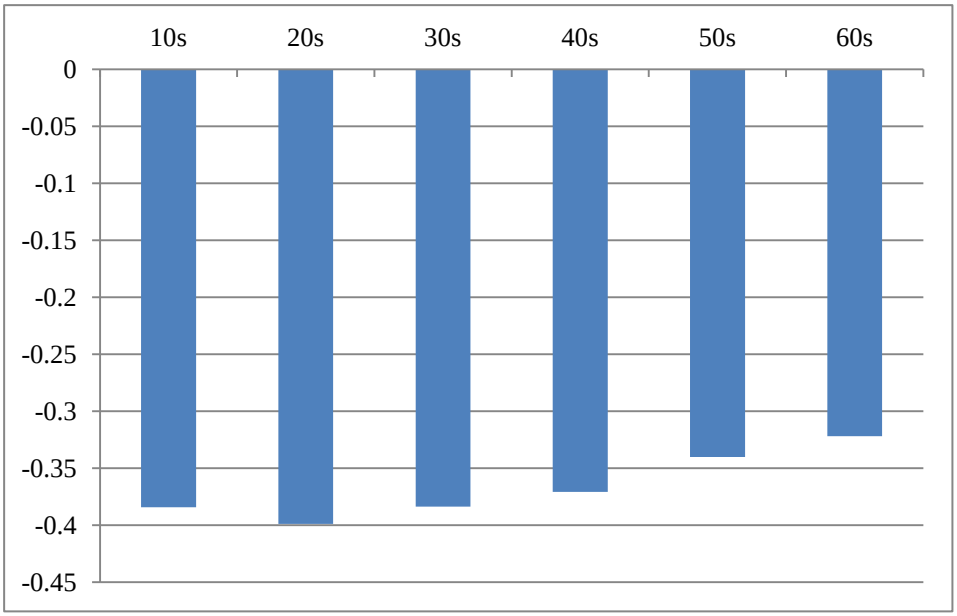


Regarding its relationship with the level of current happiness, Graph 40 shows that NEET-Hikikomori Scale was correlated to the level of current happiness. When the average score of NEET-Hikikomori Scale was higher than 4, the level of current happiness was under 4; however, only 76 people had the average score higher than 4.

Graph40 NEET-Hikikomori Scale and Level of Current Happiness



Graph41 Correlation Coefficients between NEET-Hikikomori Scale and Level of Current Happiness By Age



㉑Mental health

The survey asked respondents about their mental health in the past 30 days, for example “how often did you feel nervous?” and “How often did you feel hopeless?” (Table 33). These questions are based on K6 Scale, which measures psychological distress. K6 scores were calculated for each respondent from the sum of all responses as follows: “None of the time”=0, “a little of the time”=1, “sometime of the time”=2, “most of the time”=3, and “all the time”=4. According to research results, if K6 score is higher than 5, it means psychological distress; if K6 score is higher than 10, it may suggest mood and anxiety disorders; if K6 score is higher than 13, it could imply severe mental illness. In this online survey, approximately half of the respondents had a score higher than 5, which is quite high compared with the results from Comprehensive Survey of Living Conditions 2010. Careful interpretation is needed because there can be major bias due to survey methods, sampling, and the order of the questions (Table 34). Men marked higher scores than women in this online survey while women marked higher scores than men in Comprehensive Survey of Living Conditions. Graph 42 shows that K6 score decreased with age. It is also clear in Graph 43 that those who had a high K6 score were low in the level of current happiness. When looking at the correlation between the level of current happiness and K6 score by age, negative correlation was the largest at 40s.

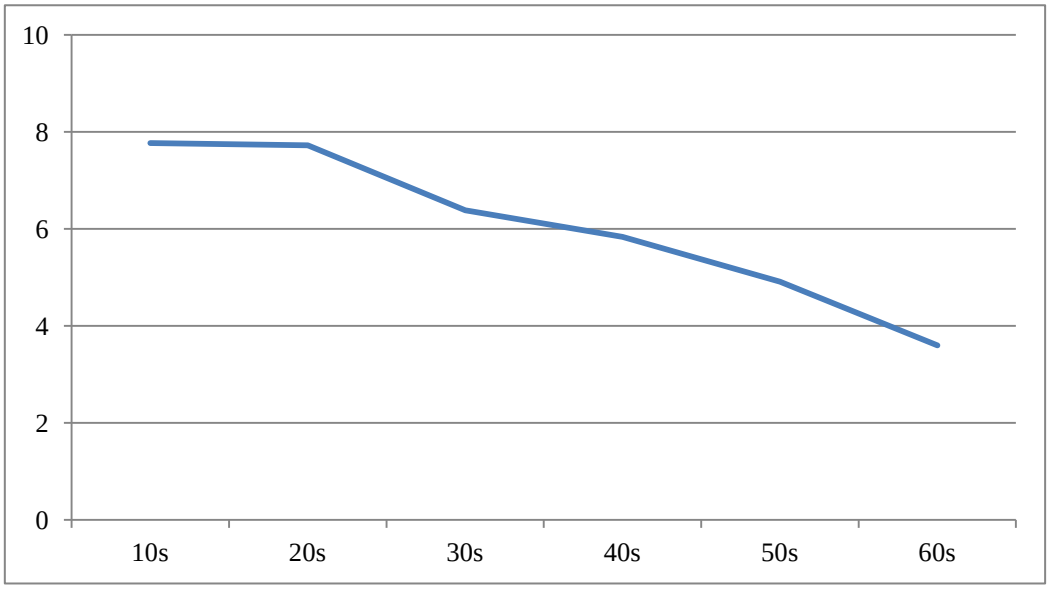
Table33 Percentage of Responses to K6 Scale (%)

	None of the time	A little of the time	Some of the time	Most of the time	All the time
How often did you feel nervous	39.9	28.6	23.3	5.6	2.7
How often did you feel hopeless	53.2	22.9	16.7	4.5	2.7
How often did you feel restless or fidgety	41.2	30.2	21.5	5.1	2.0
How often did you feel so depressed that nothing could cheer up	36.4	31.0	22.5	6.6	3.6
How often did you feel that everything was an effort	44.0	28.7	20.1	4.9	2.3
How often did you feel worthless	53.6	21.5	16.5	4.7	3.7

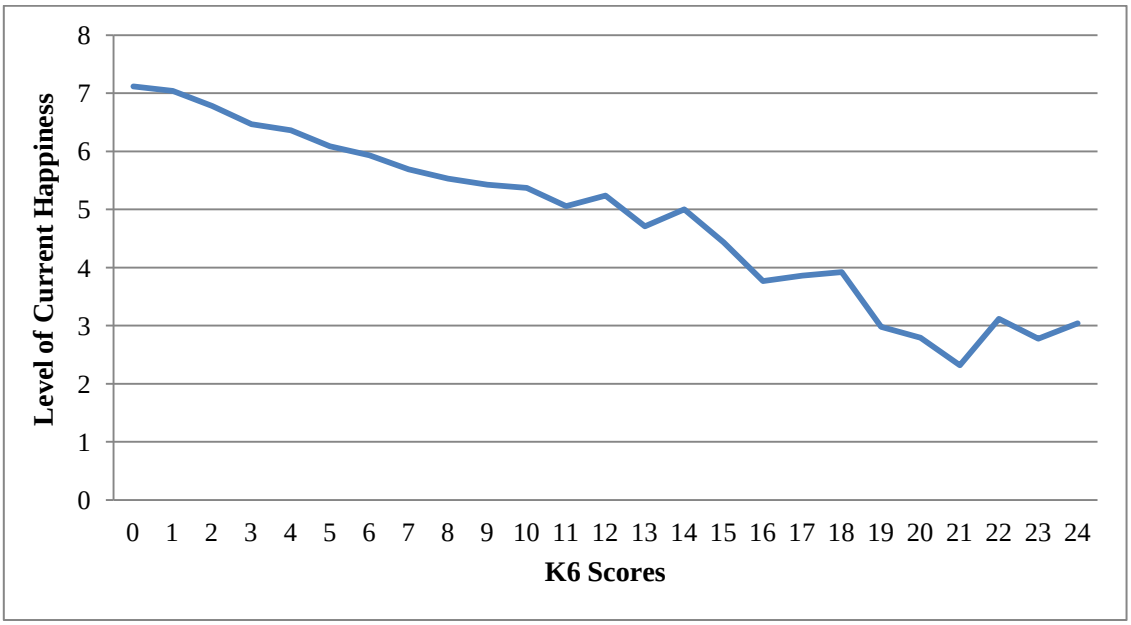
Table34 Comparison with Results from Comprehensive Survey of Living Conditions 2010

	K6 Scores	Comprehensive Survey of Living Conditions 2010	This survey
Total	Total	100.0%	100.0%
	0 - 4	58.8%	50.4%
	5 - 9	15.3%	26.2%
	10 - 14	6.1%	17.0%
	Higher than 15	2.3%	6.4%
	Unknown	17.4%	
Men	Total	100.0%	100.0%
	0 - 4	61.3%	48.4%
	5 - 9	14.1%	25.4%
	10 - 14	5.6%	19.5%
	Higher than 15	2.1%	6.7%
	Unknown	17.0%	
Women	Total	100.0%	100.0%
	0 - 4	56.6%	52.6%
	5 - 9	16.4%	27.1%
	10 - 14	6.6%	14.1%
	Higher than 15	2.5%	6.2%
	Unknown	17.8%	

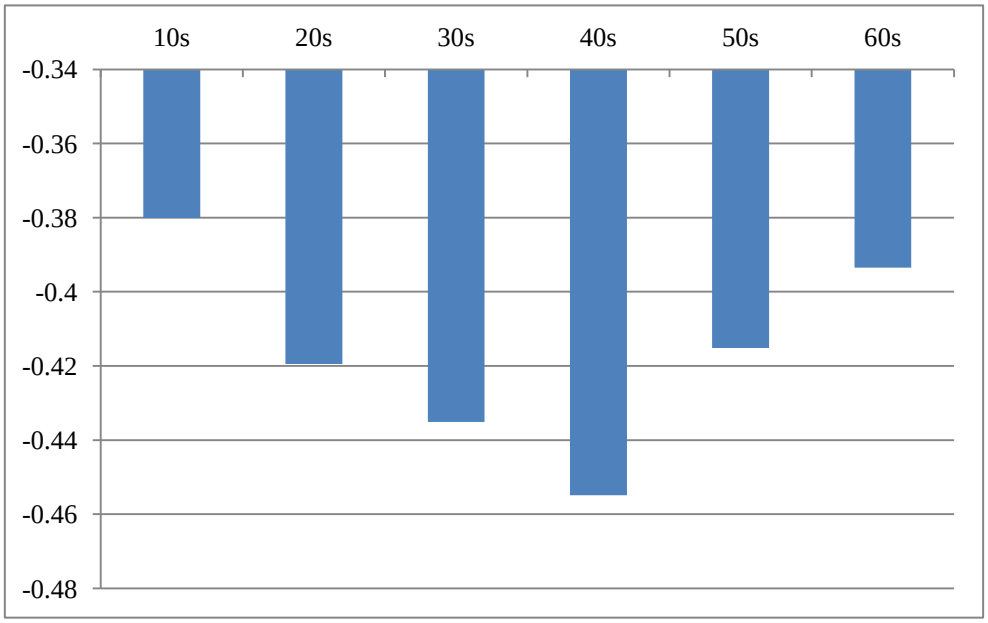
Graph42 K6 Scores By Age



Graph43 Level of Current Happiness By K6 Scores



Graph44 Correlation Coefficients between Level of Current Happiness and K6 Scores By Age



㉒Self-reported health status

When asked about the evaluation of their own health condition on a 5-point scale, from “I am not healthy at all” to “I am totally healthy,” more than half of the respondents answered either “I am totally healthy” or “I am healthy” (Table 35).

Table35 Distribution of Respondents to Self-Reported Health Status (%)

	Online	Direct-visit and self-completion
I am not healthy at all	5.2	5.8
I am not healthy	17.1	15.3
I am neither healthy nor ill	21.1	18.9
I am healthy	43.0	40.9
I am totally healthy	13.7	19.0
No answer	0.0	0.1

Indexes of self-reported health status were constructed as follows: “I am not healthy at all”=1, “I am healthy”=2, “I am neither healthy nor ill”=3, “I am not healthy”=3, and “I am totally healthy”=5. When ANOVA was conducted to examine the effect of survey methods, sex, and age on self-reported health status (see chapter 17 in the appendix), the main effect of survey methods was significant. Less respondents answered “I am totally healthy” in the online survey than in the direct-visit and self-completion questionnaires. The main effect of sex was significant, and it suggests that women evaluated their own health better than men; however, the interaction effect between survey methods and sex was not significant (Table 36).

Table36 Average Scores of Self-Reported Health Status By Age

	Online	Direct-visit and self-completion
Men	3.4	3.5
Women	3.5	3.6
Total	3.4	3.5

The main effect of age was significant, which indicates that self-reported health status declined with age. The interaction effect between self-reported health status and survey methods was also significant. In the online survey, the score increased slightly from 50s to 60s, and younger respondents had lower scores, compared with the direct-visit and self-completion questionnaires (Graph 30). Yet, further consideration is needed because this result may be due to sampling bias in the online survey.

Graph45 Self-Reported Health Status By Age

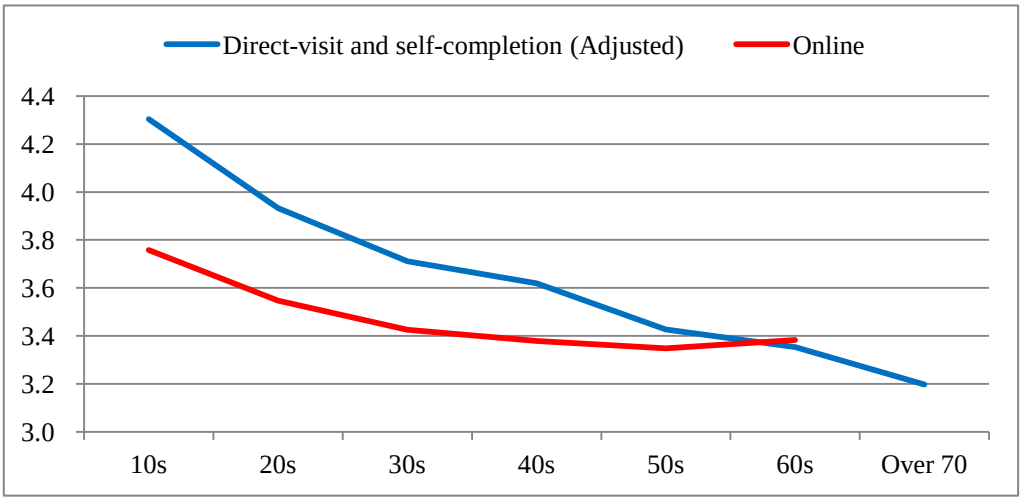
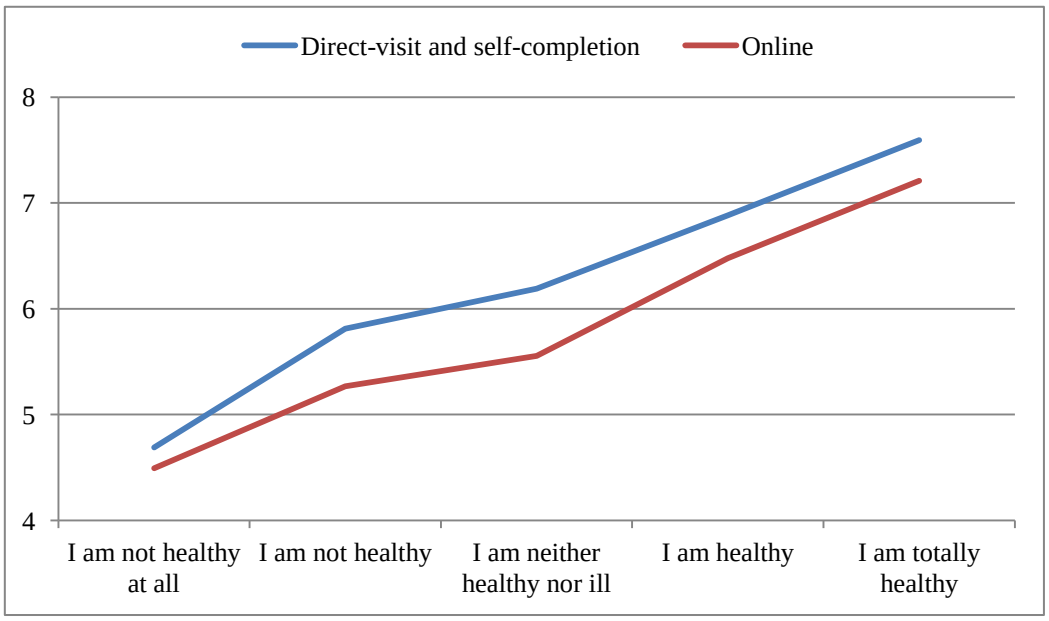


Table 37 shows that the level of current happiness and self-reported health status were positively correlated (Table 37). The curve for correlation coefficients obtained from the online survey was inverted U-shaped while the curve peaked at 50s in the direct-visit and self-completion questionnaires. In either of the surveys, the correlation coefficient between self-reported health status and the level of current happiness was not particularly high among those in their 60s and 70s who view health important.

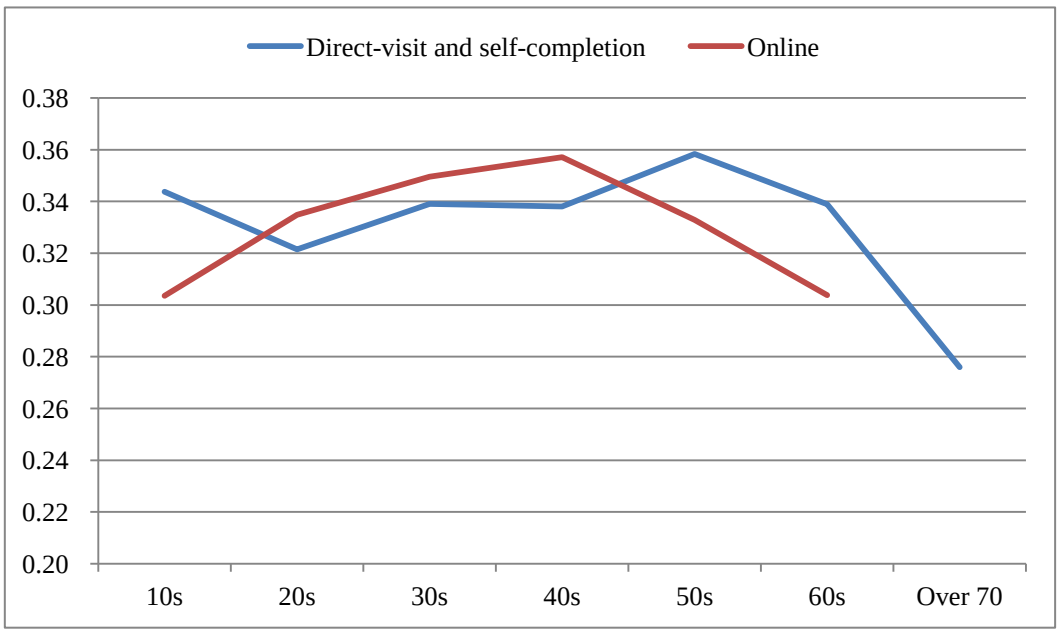
Table37 Self-Reported Health Status and Level of Current Happiness

	Level of Current Happiness	Average age	No. of respondents
I am not healthy at all	4.5	45.4	539
I am not healthy	5.3	45.5	1,790
I am neither healthy nor ill	5.6	44.6	2,204
I am healthy	6.5	45.3	4,499
I am totally healthy	7.2	39.5	1,437
Total	6.1	44.4	10,469

Graph46 Self-Reported Health Status and Level of Current Happiness By Survey Methods



Graph47 Correlation Coefficients between Self-Reported Health Status and Level of Current Happiness By Age



㉓Marital status

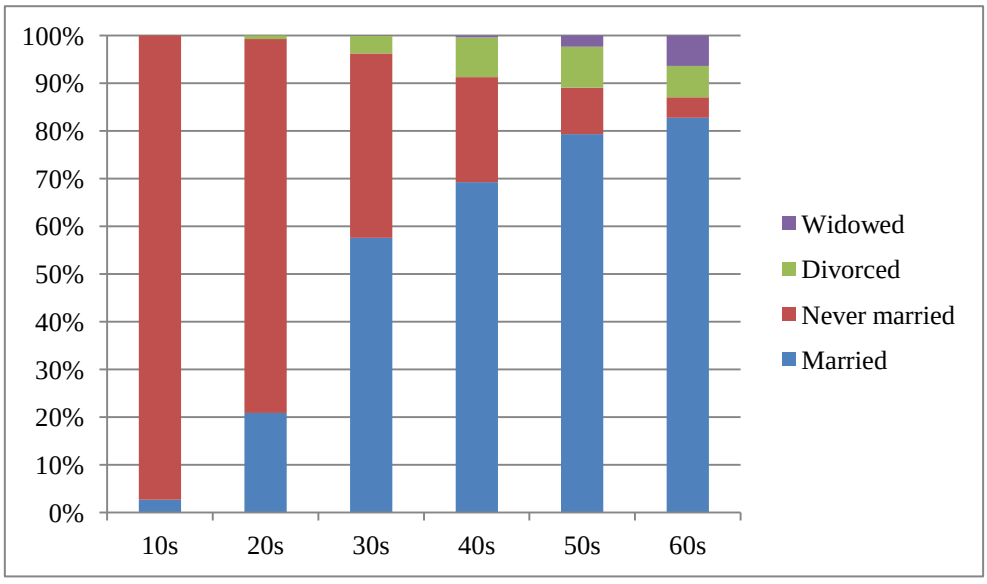
When asked marital status, more than 60% of the respondents were married and 30% of them were never married in this online survey. The number of widows was very small because the respondents were under the age of 70, which was different from the direct-visit and self-completion questionnaires (Table 38).

Table38 Marital Status

	No. of respondents	Percentage (%)	Percentage in direct-visit and self-completion (%)
Married	6,375	60.9	59.3
Never married	3,313	31.7	22.5
Divorced	579	5.5	7.3
Widowed	202	1.9	10.9

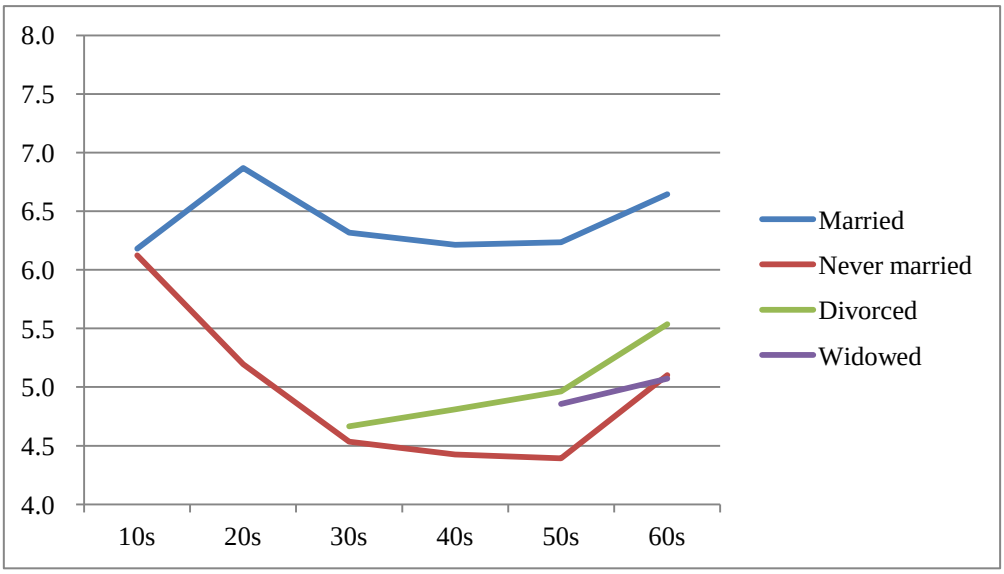
Graph 48 shows the distribution of marital status by age. Married people increased with age, but the percentage of married people was 70% even among those in their 40s. Based on a separate analysis, the percentage of married people tends to be lower among younger people and higher among older people in online surveys, compared with the results of Census and other surveys.

Graph48 Marital Status By Age

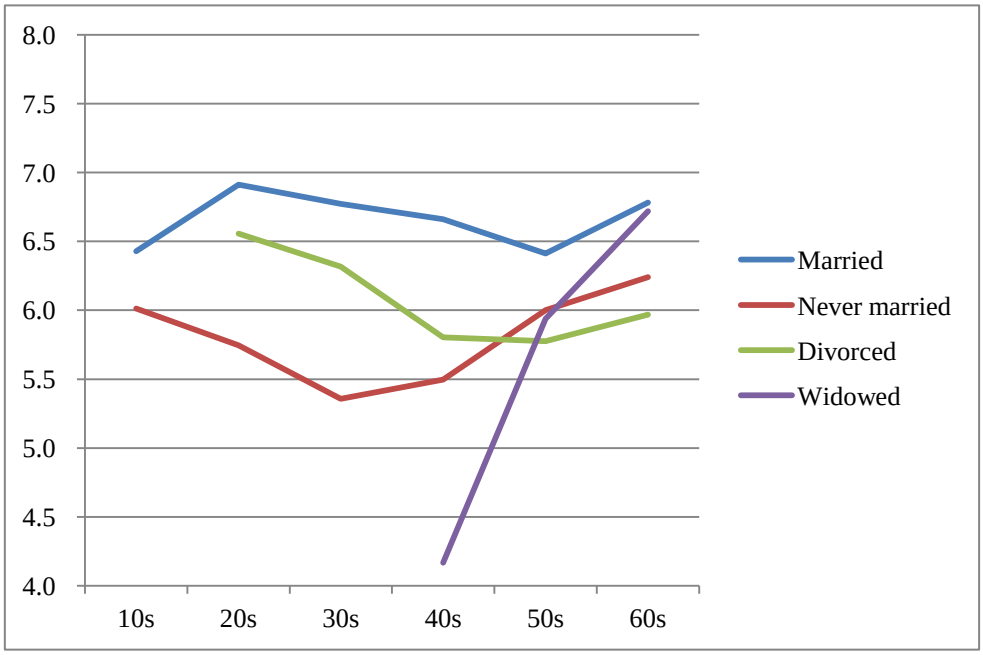


When looking at the level of current happiness by marital status, age and sex, it is clear that marital status had a strong impact on the level of current happiness among both men and women. There was a gender difference in the level of current happiness among widows. That is, among women in their 60s, widows (with a sample size of 103) were as happy as the married.

Graph49-1 Level of Current Happiness among Men By Age and Marital Status

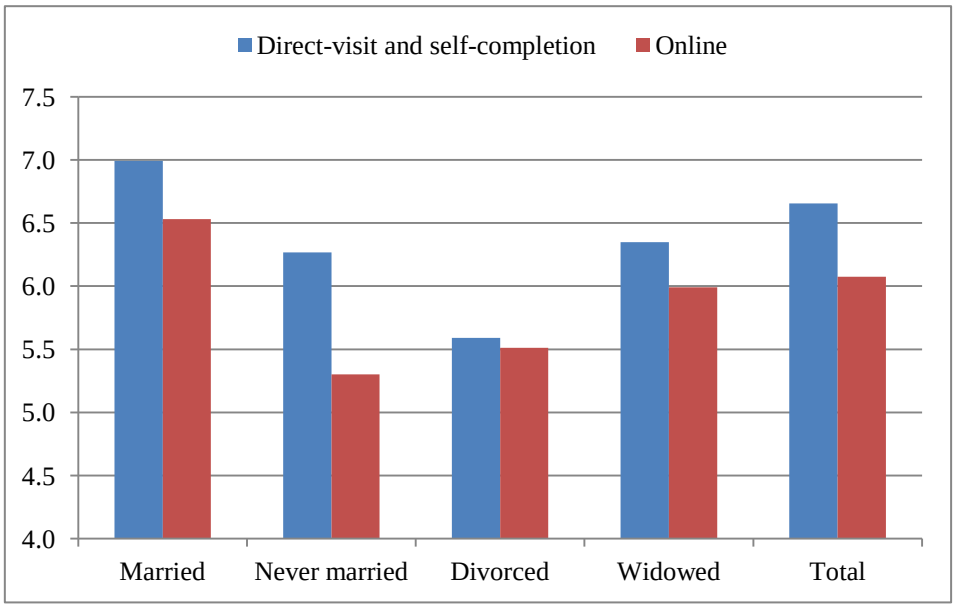


Graph49-2 Level of Current Happiness among Women By Age and Marital Status



Compared with the tendency for the whole sample, the level of current happiness among people who are never married was much lower in the online survey than in the direct-visit and self-completion questionnaires (Graph 50).

Graph50 Self-Reported Health Status and Level of Current Happiness By Survey Methods



㉔Number of children

Table 39 shows the number of children by children's age, regardless of living together or not. As more than 40% of the respondents were older than the age of 50, most respondents who have children answered that their children are older than 20 years old.

Table39 Age and Number of Children (%)

Child(ren)'s age	None	One	Two	Three or more
Older than 20 years old	65.5	8.6	19.0	6.9
Graduated from middle school (usually 15 years old) up to 20 years old	90.8	6.8	2.1	0.3
Students of middle or elementary school	86.7	8.3	4.3	0.7
Under 6 years old	89.4	7.6	2.6	0.4

When looking at the level of current happiness by children's age, the number of children, and a parent (respondent)'s age (the data were excluded if the sample size was smaller than 10), whether or not they have children apparently had an impact on the level of current happiness for all age groups. The level of current happiness was also influenced by a parent's age and children's age. Among those who have children older than 20 years old, the level of current happiness peaked at 60s. Among respondents in their 30s and 40s, those who have students of middle or elementary school were happier than those with no children. Respondents who have children under 6 years old were very happy, regardless of their own age.

Table40 Parent's Level of Current Happiness by Age and Number of Children and Age of Parents

Age of children	Number of children	Age of parents					
		10s	20s	30s	40s	50s	60s
Older than 20 years old	0	6.1	5.7	5.9	6.0	5.7	6.2
	1				6.1	6.0	6.4
	2				6.0	6.4	6.7
	3				5.7	6.4	6.7
Graduated from middle school (usually 15 years old) up to 20 years old	0	6.1	5.7	5.9	5.9	6.1	6.6
	1	6.5		5.7	6.3	6.1	6.6
	2				6.0	5.8	
	3					6.4	
Students of middle or elementary school	0	6.1	5.7	5.7	5.7	6.1	6.6
	1		5.7	6.4	6.3	6.0	6.8
	2			6.5	6.5	6.4	
	3			6.2	6.6		
Under 6 years old	0	6.1	5.5	5.5	5.9	6.1	6.6
	1		7.2	6.6	6.9	7.2	
	2		7.3	6.7	6.6		
	3			7.4			

㉕Frequency of social contacts (face-to-face)

To the questions on frequency of meeting family members and friends in person, most respondents answered that they live together with their partner or have no partner. Many respondents answered that they see their parents and siblings who do not live together a few times a year, and that they see their friends once or twice a month. More than 10% of the respondents answered that they do not have an appropriate person to the question concerning social contacts with friends.

Table41 Frequency of Social Contacts (Face-to-face) with Partner, Parents, Children, Siblings, Relatives, and Friends (%)

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	Missing /out of touch	Have no appropria te person	No answer
Partner	59.3	0.2	0.1	0.2	0.4	0.4	0.2	0.0		39.1
Your child	38.7	1.1	0.9	1.6	4.7	7.2	1.7	0.3		43.7
Your parents	30.2	2.9	2.6	5.7	13.5	17.6	6.0	0.3	21.2	
Your parents-in-law	3.3	1.6	0.9	2.4	10.0	17.2	8.6	0.4	24.0	31.6
Your siblings	13.0	1.9	1.3	3.6	14.1	35.2	17.1	1.0	12.9	
Your siblings-in-law	0.2	1.0	0.3	1.2	6.8	25.8	20.5	0.7	11.7	31.6
Relatives	3.4	1.1	0.5	1.0	5.3	30.6	45.1	0.8	12.3	
Friends	0.9	4.9	6.4	10.8	26.8	26.0	12.3	0.7	11.3	

In addition, when looking at the results sorted by age and whom they make contacts with, those who have a partner, among almost all age groups, responded that they live with their partner.

Table42 ①Social Contacts with a Partner

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	Missing /out of touch	Have no appropriate person/ No answer
10s	2%	0%	0%	0%	0%	0%	0%	0%	97%
20s	20%	0%	0%	0%	0%	0%	0%	0%	79%
30s	57%	0%	0%	0%	0%	0%	0%	0%	42%
40s	67%	0%	0%	0%	1%	1%	0%	0%	31%
50s	77%	0%	0%	0%	1%	1%	0%	0%	21%
60s	81%	0%	0%	0%	0%	0%	0%	0%	17%

Regarding social contacts with children, the number of the respondents who are not living together with their children increased with age among those over 30s. Yet still 35% of the respondents in their 60s answered that they live together with their children. In case they do not live together with their children, many respondents answered that they see their children a few times a year.

Table42 ②Frequency of Social Contacts with Your Child

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	Missing /out of touch	Have no appropriate person/ No answer
10s	2%	0%	0%	0%	0%	0%	0%	0%	97%
20s	12%	0%	0%	0%	0%	0%	0%	0%	87%
30s	42%	0%	0%	0%	0%	0%	1%	0%	57%
40s	56%	0%	0%	0%	1%	3%	1%	0%	39%
50s	53%	2%	1%	2%	7%	11%	2%	0%	22%
60s	35%	3%	3%	5%	15%	21%	5%	0%	12%

In terms of social contacts with parents, more than 90% of the respondents in their 10s answered that they are living with their parents, but the number of those living with parents drastically decreased with age. In case they do not live together with their parents, many people responded that they see their parents a few times a year.

Table42 ③Frequency of Social Contacts with Your Parents

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	Missing /out of touch	Have no appropria te person
10s	93%	0%	0%	0%	1%	4%	0%	0%	1%
20s	58%	2%	1%	3%	12%	17%	3%	0%	3%
30s	32%	3%	4%	8%	19%	23%	6%	0%	3%
40s	24%	4%	3%	8%	20%	24%	9%	1%	7%
50s	18%	4%	3%	7%	14%	19%	9%	0%	24%
60s	9%	2%	2%	3%	7%	9%	5%	0%	64%

Many respondents answered that they see parents-in-law a few times a year if they have any. There were many respondents who did not choose any answer to this question because those who answered that they are not married in the previous question were automatically assigned to “no answer” in this question. Therefore, it is not clear whether respondents actually did not choose any answer or answered that they have no appropriate person.

Table42 ④Frequency of Social Contacts with Your Parents in Law

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	Missing/ out of touch	Have no appropriate person	No answer
10s	0%	0%	0%	0%	0%	0%	0%	0%	1%	97%
20s	1%	0%	0%	1%	7%	8%	2%	0%	2%	78%
30s	3%	1%	1%	4%	17%	24%	6%	0%	5%	39%
40s	5%	2%	1%	3%	13%	26%	13%	1%	14%	22%
50s	6%	3%	1%	3%	10%	20%	15%	0%	32%	10%
60s	3%	1%	0%	1%	5%	12%	8%	0%	64%	4%

Also for the frequency of social contact with siblings, the number of respondents living with their siblings drastically declined with age. Among those who do not live with their siblings, many answered that they see their siblings a few times a year.

Table42 ⑤Frequency of Social Contacts with Your Siblings

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	Missing /out of touch	Have no appropriate person
10s	71%	1%	0%	1%	3%	8%	1%	0%	14%
20s	34%	1%	1%	3%	13%	28%	6%	1%	13%
30s	11%	2%	2%	5%	17%	39%	13%	1%	11%
40s	5%	2%	1%	4%	16%	39%	19%	1%	14%
50s	3%	2%	1%	3%	14%	41%	22%	1%	13%
60s	1%	2%	2%	3%	14%	36%	26%	1%	14%

Many respondents answered that they see their siblings-in-law a few times a year or less than that.

Table42 ⑥Frequency of Social Contacts with Your Siblings in Law

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	Missing /out of touch	Have no appropriate person	No answer
10s	0%	0%	0%	0%	0%	0%	0%	0%	2%	97%
20s	0%	0%	0%	1%	3%	10%	4%	0%	3%	78%
30s	0%	0%	0%	2%	9%	28%	14%	1%	8%	39%
40s	0%	1%	0%	1%	7%	30%	23%	1%	14%	22%
50s	0%	2%	0%	1%	7%	31%	31%	1%	16%	10%
60s	0%	1%	0%	2%	8%	33%	32%	1%	18%	4%

Similarly, many respondents answered that they see their relatives a few times a year or less than that. As grandparents were included as relatives here, 13% of the respondents in their 10s answered that they live together with relatives.

Table42 ⑦Frequency of Social Contacts with Relatives (Including grandparents)

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	Missing /out of touch	Have no appropriate person
10s	13%	2%	1%	3%	12%	32%	11%	0%	26%
20s	10%	1%	1%	1%	8%	36%	27%	1%	15%
30s	3%	1%	1%	1%	5%	36%	44%	1%	10%
40s	1%	1%	0%	1%	4%	30%	51%	1%	10%
50s	1%	2%	0%	1%	5%	27%	55%	1%	9%
60s	1%	1%	0%	1%	4%	26%	53%	1%	13%

Among respondents in their 10s, 27% answered that they see their friends everyday, which was much more frequent compared with the results among the other age groups. On the other hand, 29% answered that they have no appropriate person to the question concerning social contacts with friends, which was also a large part of the respondents in their 10s. Many of the respondents in their 30s and 40s answered that they see their friends a few times a year, and many of those in their50s and 60s answered that they see their friends once or twice a month.

Table42 ⑧Frequency of Social Contacts with Friends

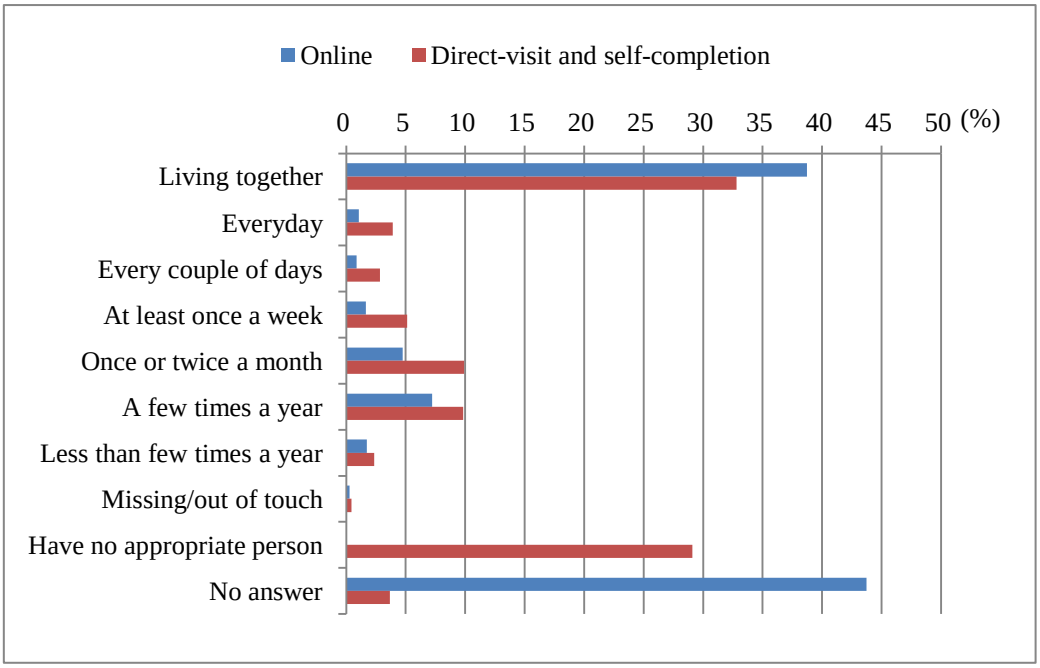
	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	Missing/ out of touch	Have no appropriate person
10s	1%	27%	14%	9%	11%	4%	4%	0%	29%
20s	2%	4%	8%	10%	29%	22%	8%	1%	17%
30s	1%	2%	4%	10%	27%	33%	13%	1%	9%
40s	1%	3%	5%	9%	27%	29%	15%	1%	9%
50s	1%	4%	5%	12%	28%	26%	16%	0%	8%
60s	0%	3%	8%	14%	29%	26%	11%	0%	9%

When examining the difference in responses to the frequency of social contacts with children and friends by survey methods (direct-visit and self-completion questionnaires and online survey), more respondents in the online survey answered that they live together with their children than in the direct-visit and self-completion questionnaires. Also, the responses in the direct-visit and self-completion questionnaires were more varied than in the online survey, regarding the frequency of social contacts with children (Graph 51). It is impossible to compare the results of the online survey and direct-visit and self-completion questionnaires in terms of the number of respondents who did not choose any answer and that of those who have no appropriate person because the definitions were different in these two surveys[6]

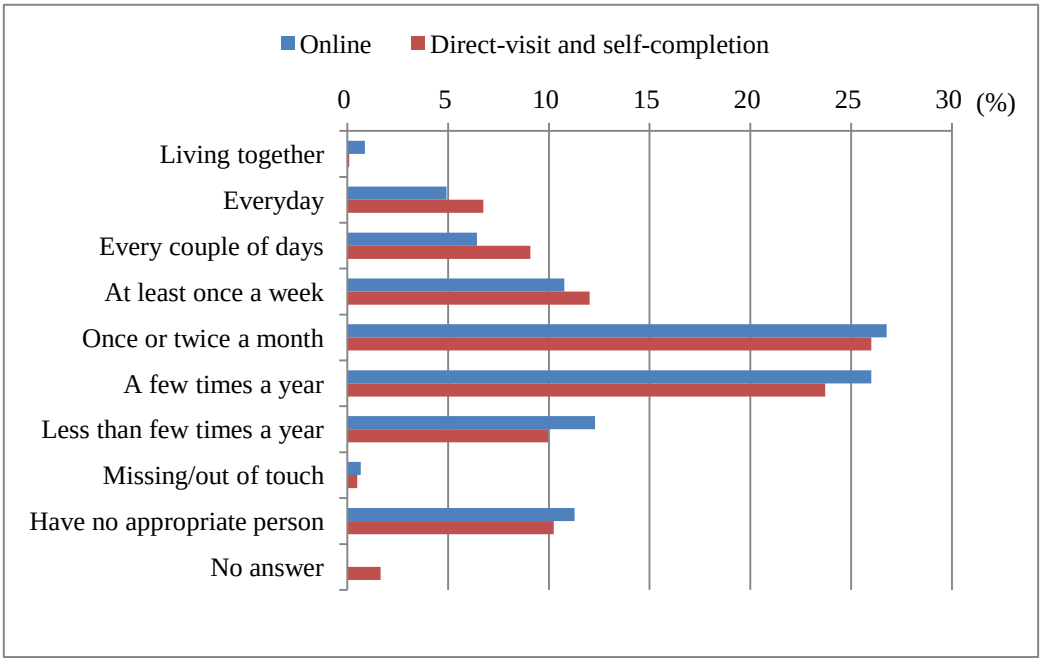
On the other hand, respondents in the direct-visit and self-completion questionnaires answered that they see their friends more often than the counterparts in the online survey. In general, however, the results in the online survey and direct-visit and self-completion questionnaires were similar, regarding frequency of social contacts with friends.

[6] The answer "Have no appropriate person" was excluded in the online survey because only respondents who indicated that they have a child/children in Q24 were asked to answer this question (frequency of social contacts with children).

Graph51 ① Comparison of the Results from Online Survey and Direct-visit and Self-completion Questionnaire: Frequency of Social Contacts (Face-to-face) with Children



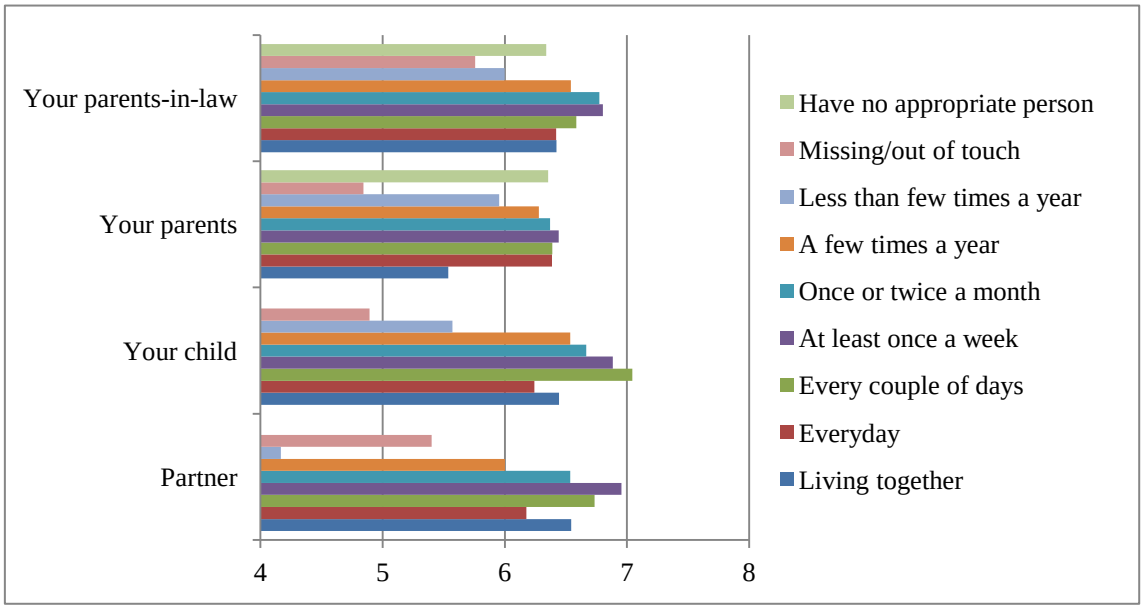
Graph51 ② Comparison of the Results from Online Survey and Direct-visit and Self-completion Questionnaire: Frequency of Social Contacts (Face-to-face) with Friends



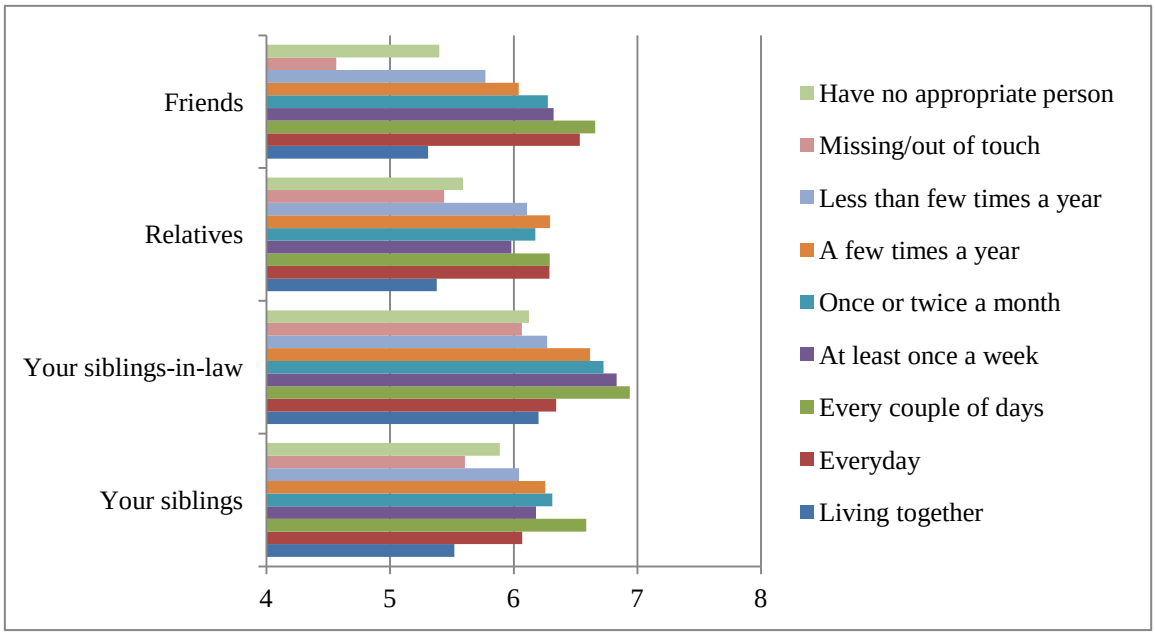
Regarding the level of current happiness contrasted with frequency of social contacts, in most relationships, living together or seeing everyday did not necessarily lead to higher level of current happiness. Rather, the level of current happiness peaked when seeing a family member or friend

every couple of days (Graph 52). In the direct-visit and self-completion questionnaires, the level of current happiness was higher when respondents see their children more often, while it was not the case in the online survey.

Graph52 ①Frequency of Social Contacts and Level of Current Happiness:
Partner, Child, Parents, Parents-in-law



Graph52 ②Frequency of Social Contacts and Level of Current Happiness:
Friends, Relatives, Siblings-in-law, Siblings



㉖Frequency of social contacts (telephone, emails, letters, etc)

The survey also investigated frequency of social contacts through telephone, emails or letters with those who do not live together. Many respondents who have a partner answered that they communicate with their partner everyday (Table 43). Different from the direct-visit and self-completion questionnaires, the online survey did not include “living together”, “missing/out of touch”, and “have no appropriate person” in the answers here because they were already asked in the previous question. Therefore, it should be noted that the total number of responses about social contacts with a partner greatly decreased. Many respondents answered that they communicate through telephone, emails, or letters with children and parents once or twice a month. Regarding frequency of social contacts with siblings, “a few times a year” was the most common answer. It was also revealed that most respondents answered that they do not communicate at all with parents-in-law, siblings-in-law, and relatives.

Table43 Social Contacts Through Telephone, Emails or Letters (%)

	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	No. of Respondents
Partner	28.4	15.4	20.4	14.2	7.4	3.7	10.5	162
Your child	8.5	14.7	21.1	33.3	15.2	2.9	4.3	1,809
Your parents	4.5	9.6	17.2	32.4	16.3	5.7	14.3	5,061
Your parents in law	1.5	2.2	5.9	21.0	25.1	14.8	29.6	4,259
Your siblings	1.2	3.5	7.1	25.9	34.8	14.9	12.7	7,651
Your siblings in law	0.4	0.6	1.8	10.4	30.5	24.9	31.4	5,831
Relatives	0.4	0.6	1.6	7.0	24.5	31.9	34.1	8,733
Friends	5.3	11.8	16.4	30.1	21.2	9.5	5.7	9,128

Table 44 below was created by adding the data of “living together” “missing/out of touch” “have no appropriate person” and sorting out the data by age, in order to compare with the results about face-to-face contacts. In terms of frequency of social contacts with a partner, there was no major difference between face-to-face contacts and communication through telephone etc. because most respondents live together with their partner. Regarding frequency of social contacts with children, respondents in their 50s and 60s indicated that they communicate through telephone etc. rather than meet in person when they made contacts everyday, every couple of days, or at least once a week. Many respondents in their 20s, 30s, 40s, and 50s answered that they make contacts with their parents and siblings every couple of days, at least once a week, or once or twice a month. Respondents in all age groups indicated that they communicate with parents-in-law, siblings-in-law, and relatives through telephone etc. less often than met them in person. In contrast, many respondents, except those in their 10s who see their friends everyday, chose to communicate with their friends through telephone etc. rather than meet in person.

Table44 ①Social Contacts Through Telephone, Emails or Letters: Partner

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	2%	0%	0%	0%	0%	0%	0%	0%	97%
20s	20%	0%	0%	0%	0%	0%	0%	0%	79%
30s	57%	0%	0%	0%	0%	0%	0%	0%	43%
40s	67%	1%	1%	1%	0%	0%	0%	0%	31%
50s	77%	1%	0%	0%	1%	0%	0%	0%	21%
60s	81%	0%	0%	0%	0%	0%	0%	0%	17%

Difference in Percent Distribution (Through telephone etc.－Face-to-face)

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	0%	0%	0%	0%	0%	0%	0%	0%	0%
20s	0%	0%	0%	0%	0%	0%	0%	0%	0%
30s	0%	0%	0%	0%	0%	0%	0%	0%	0%
40s	0%	0%	0%	0%	-1%	0%	0%	0%	0%
50s	0%	0%	0%	0%	0%	0%	0%	0%	0%
60s	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table44 ②Social Contacts Through Telephone, Emails or Letters: Children

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	2%	0%	0%	0%	0%	0%	0%	0%	97%
20s	12%	0%	0%	0%	0%	0%	0%	0%	87%
30s	42%	0%	0%	0%	0%	0%	0%	0%	57%
40s	56%	0%	1%	1%	1%	1%	0%	0%	39%
50s	53%	2%	3%	6%	8%	3%	1%	1%	22%
60s	35%	4%	8%	11%	18%	9%	1%	2%	13%

Difference in Percent Distribution (Through telephone etc.－Face-to-face)

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	0%	0%	0%	0%	0%	0%	0%	0%	0%
20s	0%	0%	0%	0%	0%	0%	0%	0%	0%
30s	0%	0%	0%	0%	0%	0%	0%	0%	0%
40s	0%	0%	1%	1%	0%	-2%	0%	0%	0%
50s	0%	1%	2%	4%	2%	-8%	-2%	1%	0%
60s	0%	1%	5%	5%	3%	-12%	-3%	1%	0%

Table44 ③Social Contacts Through Telephone, Emails or Letters: Parents

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	93%	1%	1%	1%	3%	0%	0%	0%	1%
20s	58%	3%	5%	9%	15%	5%	1%	1%	3%
30s	32%	4%	7%	12%	24%	10%	3%	4%	4%
40s	24%	2%	6%	11%	23%	11%	4%	11%	8%
50s	18%	3%	5%	9%	16%	9%	4%	12%	25%
60s	9%	1%	2%	3%	6%	5%	3%	7%	64%

Difference in Percent Distribution (Through telephone etc.－Face-to-face)

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	0%	0%	1%	0%	2%	-4%	0%	0%	0%
20s	0%	1%	4%	6%	3%	-12%	-2%	1%	0%
30s	0%	0%	3%	4%	5%	-13%	-3%	4%	0%
40s	0%	-2%	3%	3%	3%	-13%	-5%	10%	1%
50s	0%	-2%	2%	2%	1%	-10%	-5%	11%	0%
60s	0%	-1%	0%	0%	-1%	-4%	-2%	7%	0%

Table44 ④Social Contacts Through Telephone, Emails or Letters: Parents-in-law

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	0%	0%	0%	0%	0%	0%	0%	0%	99%
20s	1%	0%	1%	2%	6%	4%	2%	4%	80%
30s	3%	1%	1%	4%	13%	14%	7%	14%	44%
40s	5%	0%	1%	3%	12%	15%	9%	18%	37%
50s	6%	1%	1%	3%	9%	13%	8%	17%	42%
60s	3%	1%	0%	1%	5%	7%	5%	9%	69%

Difference in Percent Distribution (Through telephone etc.－Face-to-face)

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	0%	0%	0%	0%	0%	0%	0%	0%	0%
20s	0%	0%	0%	0%	-1%	-4%	0%	4%	0%
30s	0%	0%	0%	0%	-4%	-9%	0%	14%	0%
40s	0%	-2%	0%	0%	-1%	-11%	-4%	17%	1%
50s	0%	-2%	0%	0%	-1%	-8%	-6%	16%	0%
60s	0%	-1%	0%	0%	0%	-5%	-3%	9%	0%

Table44 ⑤Social Contacts Through Telephone, Emails or Letters: Siblings

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	71%	0%	1%	3%	5%	2%	1%	3%	15%
20s	34%	1%	3%	6%	16%	16%	6%	6%	13%
30s	11%	1%	3%	6%	22%	24%	11%	11%	11%
40s	5%	1%	2%	5%	19%	27%	14%	13%	15%
50s	3%	1%	3%	5%	20%	32%	13%	11%	14%
60s	1%	1%	3%	5%	21%	32%	13%	8%	15%

Difference in Percent Distribution (Through telephone etc.－Face-to-face)

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	0%	-1%	0%	2%	2%	-5%	0%	2%	0%
20s	0%	0%	1%	2%	3%	-12%	0%	5%	1%
30s	0%	-1%	2%	1%	4%	-14%	-2%	10%	1%
40s	0%	-2%	1%	1%	3%	-12%	-5%	12%	1%
50s	0%	-2%	1%	2%	6%	-10%	-9%	10%	1%
60s	0%	-1%	1%	2%	7%	-4%	-13%	7%	1%

Table44 ⑥Social Contacts Through Telephone, Emails or Letters: Siblings-in-law

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	0%	0%	0%	0%	0%	0%	0%	0%	99%
20s	0%	0%	0%	0%	3%	4%	3%	8%	82%
30s	0%	0%	0%	1%	5%	13%	12%	21%	47%
40s	0%	0%	0%	1%	5%	17%	17%	23%	37%
50s	0%	0%	0%	2%	7%	22%	18%	22%	27%
60s	0%	0%	1%	2%	10%	28%	20%	16%	23%

Difference in Percent Distribution (Through telephone etc.－Face-to-face)

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	0%	0%	0%	0%	0%	0%	0%	0%	0%
20s	0%	0%	0%	0%	-1%	-5%	-1%	8%	0%
30s	0%	0%	0%	-1%	-4%	-14%	-2%	21%	1%
40s	0%	-1%	0%	0%	-3%	-13%	-6%	22%	1%
50s	0%	-1%	0%	0%	0%	-9%	-12%	21%	1%
60s	0%	-1%	0%	0%	2%	-5%	-12%	15%	1%

Table44 ⑦Social Contacts Through Telephone, Emails or Letters: Relatives (Including Grandparents)

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	13%	1%	2%	4%	11%	14%	8%	21%	27%
20s	10%	1%	1%	2%	8%	17%	16%	29%	16%
30s	3%	0%	0%	1%	5%	19%	25%	36%	11%
40s	1%	0%	0%	1%	4%	18%	30%	33%	11%
50s	1%	0%	0%	1%	5%	23%	31%	29%	10%
60s	1%	0%	0%	1%	5%	25%	33%	19%	14%

Difference in Percent Distribution (Through telephone etc.－Face-to-face)

	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	0%	-1%	1%	1%	0%	-18%	-4%	20%	0%
20s	0%	-1%	0%	0%	0%	-19%	-11%	29%	1%
30s	0%	0%	0%	0%	0%	-17%	-19%	35%	1%
40s	0%	-1%	0%	0%	0%	-11%	-22%	32%	1%
50s	0%	-1%	0%	0%	0%	-4%	-24%	28%	1%
60s	0%	-1%	0%	0%	2%	-1%	-20%	18%	1%

Table44 ⑧Social Contacts Through Telephone, Emails or Letters: Friends

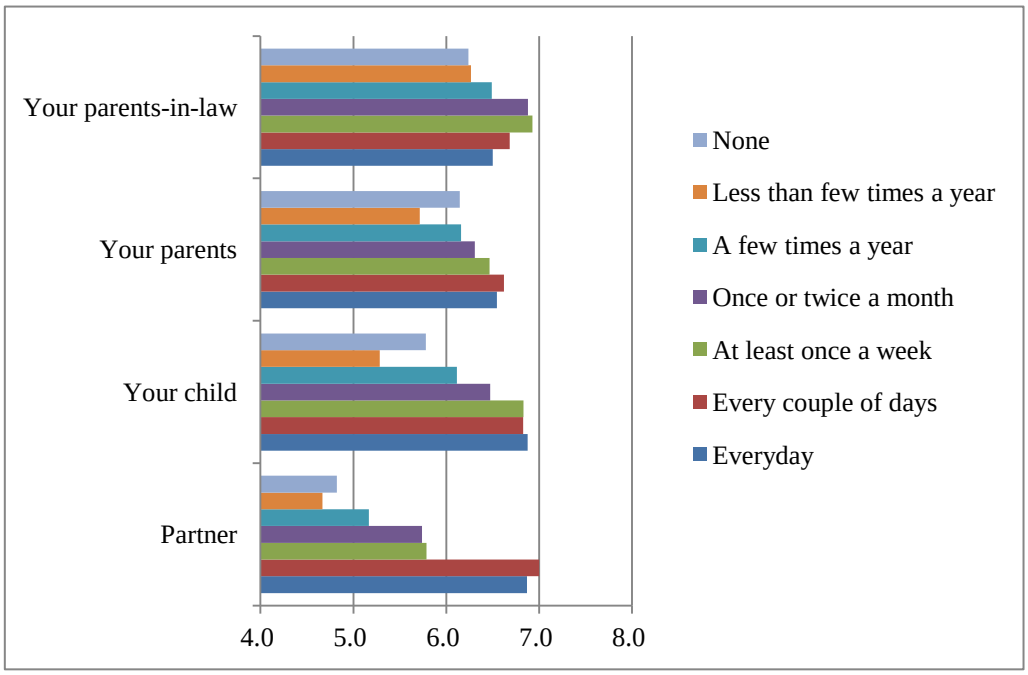
	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	1%	15%	21%	15%	11%	3%	2%	2%	29%
20s	2%	6%	10%	16%	27%	14%	4%	4%	17%
30s	1%	4%	10%	14%	28%	21%	8%	5%	10%
40s	1%	4%	9%	15%	25%	20%	11%	6%	10%
50s	1%	4%	9%	13%	27%	20%	11%	7%	9%
60s	0%	3%	10%	14%	30%	21%	9%	4%	9%

Difference in Percent Distribution (Through telephone etc.－Face-to-face)

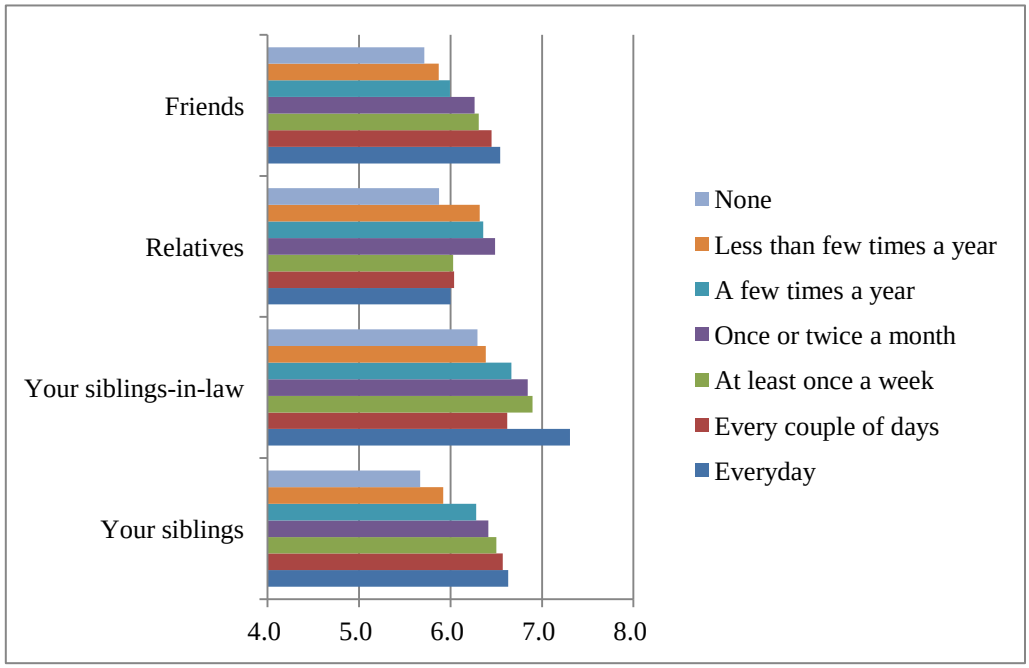
	Living together	Everyday	Every couple of days	At least once a week	Once or twice a month	A few times a year	Less than few times a year	None	Have no appropriate person/ No answer
10s	0%	-13%	7%	6%	0%	-1%	-2%	2%	0%
20s	0%	2%	3%	6%	-2%	-8%	-4%	3%	1%
30s	0%	2%	6%	4%	1%	-12%	-5%	4%	1%
40s	0%	1%	4%	6%	-2%	-10%	-5%	5%	1%
50s	0%	0%	4%	1%	-1%	-5%	-4%	6%	0%
60s	0%	0%	2%	1%	1%	-5%	-2%	4%	0%

Graph 53 suggests that the level of current happiness and frequency of social contacts were positively correlated, except for social contacts with “parents-in-law” and “relatives.”

Graph53 ①Frequency of Social Contacts through Telephone etc. and Level of Current Happiness: Partner, Child, Parents, Parents-in-law



Graph53 ②Frequency of Social Contacts through Telephone etc. and Level of Current Happiness: Siblings, Siblings-in-law, Relatives, Friends



㉗Residence of children who do not live together

When asked where children live in case respondents do not live together, more than half answered that their children live in another prefecture or foreign country. The number of respondents living with children was 4,054 (from Q25).

Table45 Residence of Children Who Do Not Live Together

	No. of Respondents	Percentage (%)
In the same property	56	3.1
In the same municipality	457	25.3
In the same prefecture	444	24.5
In another prefecture or foreign country	852	47.1
Total	1,809	100

Table 46 summarizes residence of children by a parent's age, including the case of living together. Most respondents in their 20s, 30s, and 40s live with their children. The result for those in their 10s was excluded here because the sample size was too small.

Table46 Residence of Children By Parent's Age

	20s	30s	40s	50s	60s
Living together	97%	97%	92%	68%	41%
In the same property	2%	0%	0%	1%	2%
In the same municipality	0%	0%	2%	7%	17%
In the same prefecture	1%	1%	2%	9%	14%
In another prefecture or foreign country	1%	1%	5%	16%	27%
Total	100%	100%	100%	100%	100%

When looking at the relationship between residence of children and the level of current happiness, the level of current happiness was quite low among those in their 40s in case they do not live with children; however, this tendency did not hold for respondents over 50s. The data was limited here because the responses were excluded if the sample size was too small.

Table47 Parent's Level of Current Happiness By Residence of Children

	20s	30s	40s	50s	60s
Living together	7.0	6.6	6.4	6.2	6.5
In the same property					6.8
In the same municipality			5.3	6.3	6.8
In the same prefecture			5.3	6.2	6.6
In another prefecture or foreign country		4.2	5.8	6.4	6.7
Total	7.0	6.5	6.3	6.2	6.6

㉘Residence of parents who do not live together

When asked where parents live in case respondents do not live together, 40% answered that their parents live in another prefecture or foreign country (Table 48). The number of respondents living with parents was 3,160 (from Q25).

Table48 Residence of Parents Who Do Not Live Together

	No. of Respondents	Percentage (%)
In the same property	187	3.7
In the same municipality	1,431	28.3
In the same prefecture	1,393	27.5
In another prefecture or foreign country	2,023	40.0
No parents	27	0.5
Total	5,061	100

Table 49 summarizes the responses by age after adding the data of “living together” “have no appropriate person” and “missing/out of touch” from Q25.

Table49 Residence of Parents By Age (%)

	10s	20s	30s	40s	50s	60s
Living together	93%	58%	32%	24%	18%	9%
In the same property	0%	1%	1%	3%	3%	1%
In the same municipality	0%	7%	20%	22%	16%	7%
In the same prefecture	1%	10%	17%	19%	16%	8%
In another prefecture or foreign country	4%	20%	25%	24%	22%	12%
Have no appropriate person/ Out of touch	1%	4%	4%	8%	25%	65%
Total	100%	100%	100%	100%	100%	100%

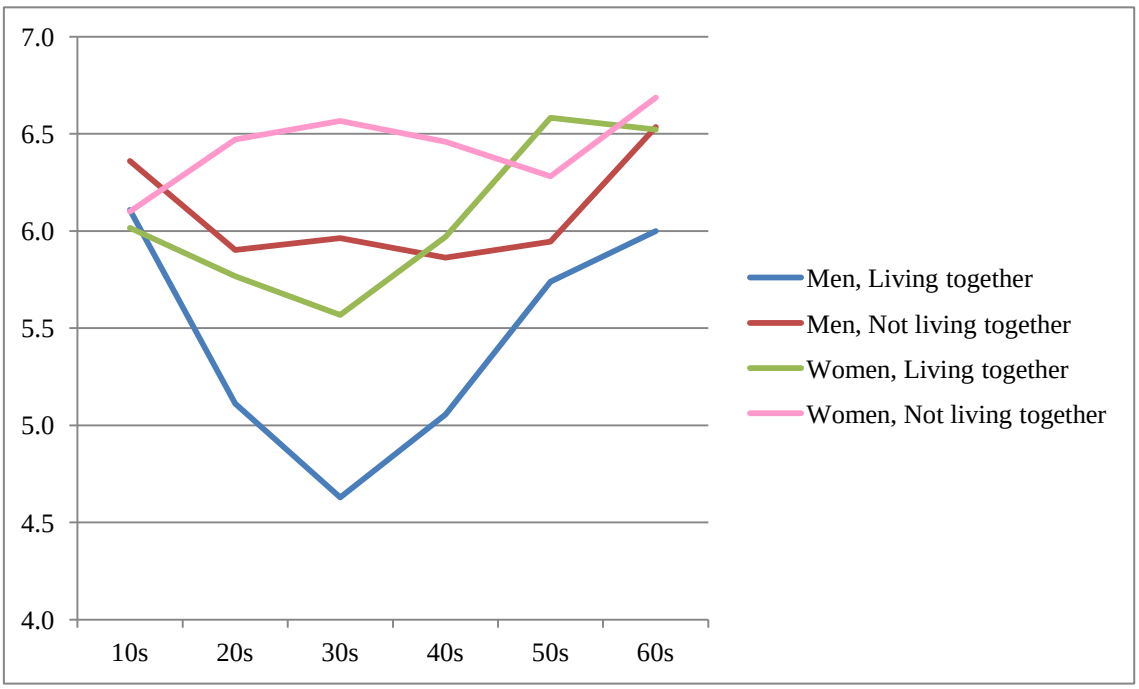
Among respondents aged 20 and over, the level of current happiness was lower than the average score of the same age group if they live with their parents. The data were excluded here if the sample size was smaller than 10.

Table50 Residence of Parents and Level of Current Happiness

	10s	20s	30s	40s	50s	60s
Living together	6.1	5.4	4.9	5.4	5.9	6.2
In the same property		7.3	6.5	6.2	6.3	6.0
In the same municipality		6.4	6.3	6.2	6.1	6.6
In the same prefecture	5.7	6.2	6.4	6.3	6.0	6.6
In another prefecture or foreign country	6.2	6.2	6.3	6.3	6.3	6.6
Have no appropriate person/ Out of touch		5.5	5.3	5.4	6.0	6.6
Total	6.1	5.7	5.9	6.0	6.1	6.6

As there may be a gender difference in the relationship between residence of parents and the level of current happiness, the level of current happiness by residence of parents (whether or not living together), age, and sex is illustrated in Graph 54. It reveals that the level of current happiness was remarkably low among male respondents in their 30s who live with their parents.

Graph54 Level of Current Happiness By Sex, Age, Residence of Parents



㉙Residence of the closest relative for those who have neither parents nor children

The survey asked those who have neither parents nor children where the closest relative lives. The number of the respondents was 332. 40% of them answered that the closest relative lives in another prefecture or foreign country or that they have no contact with a relative (Table 51).

Table51 Residence of the Closest Relative

	No. of Respondents	Percentage (%)
In the same property	19	5.7
In the same municipality	96	28.9
In the same prefecture	78	23.5
In another prefecture or foreign country	110	33.1
No contact with a relative	29	8.7
Total	332	100

㉚Social network support (number of people you can count on in case of troubles)

To the question “How many family members, relatives, or friends do you have who would help you when you are in trouble?”, more than 80% of the respondents answered they can count on “parents or parents-in-law”, “family or relatives (except parents)”, or “friends” (Table 52). On the other hand, more than half answered that there are no neighbors they can count on. The number of respondents to this question was not consistent with the number of the whole sample because those who indicated that they do not have any parents or relatives in previous questions were excluded here. Moreover, it is almost impossible to compare this result with that of direct-visit and self-completion questionnaires because such people were included and there were many respondents who skipped the question in the direct-visit and self-completion questionnaires.

Table52 Number of People Respondents Can Count on in Case of Troubles (%)

	None	One	Two	Three	Four	Five	Six and more	Total no. of respondents
Parents or parents-in-law	14.1	22.2	40.7	10.7	12.4			8,917
Family or relatives (except parents)	15.2	13.2	22.0	11.4	8.4	4.3	25.5	10,148
Friends	18.5	11.1	18.7	15.0	6.0	5.9	24.8	9,219
Neighbors	50.0	9.1	15.6	7.9	3.7	2.2	11.5	10,469
Others	66.4	5.9	7.9	4.4	1.5	1.5	12.5	10,469

By age, many respondents, except those in their 60s, answered that they can count on their parents. Many respondents also answered they can count on family or relatives (except parents) and friends. Many respondents in their 20s and 30s, in particular, answered that they cannot count on neighbors.

Table53 Number of People Respondents Can Count on in Case of Troubles:

①Parents or Parents-in-law

	10s	20s	30s	40s	50s	60s
None	11%	10%	8%	11%	18%	31%
One	11%	12%	12%	20%	34%	44%
Two	66%	61%	45%	37%	29%	19%
Three	6%	6%	12%	16%	12%	5%
Four	5%	11%	23%	16%	7%	2%
Five						
Six and more						
Total	100%	100%	100%	100%	100%	100%

Table53 Number of People Respondents Can Count on in Case of Troubles:

②Family or Relatives (Except Parents)

	10s	20s	30s	40s	50s	60s
None	14%	18%	18%	19%	14%	9%
One	14%	15%	16%	14%	12%	10%
Two	22%	24%	24%	21%	23%	20%
Three	11%	11%	10%	9%	12%	15%
Four	11%	8%	7%	8%	8%	10%
Five	3%	3%	3%	4%	4%	7%
Six and more	25%	20%	23%	26%	27%	29%
Total	100%	100%	100%	100%	100%	100%

Table53 Number of People Respondents Can Count on in Case of Troubles: ③Friends

	10s	20s	30s	40s	50s	60s
None	17%	21%	19%	19%	18%	17%
One	7%	10%	11%	11%	12%	12%
Two	12%	15%	19%	19%	20%	21%
Three	12%	15%	15%	15%	15%	16%
Four	7%	6%	6%	6%	5%	6%
Five	6%	6%	5%	5%	7%	7%
Six and more	39%	27%	26%	25%	23%	21%
Total	100%	100%	100%	100%	100%	100%

Table53 Number of People Respondents Can Count on in Case of Troubles: ④Neighbors

	10s	20s	30s	40s	50s	60s
None	57%	72%	60%	50%	42%	33%
One	7%	5%	8%	8%	11%	12%
Two	9%	10%	13%	15%	18%	22%
Three	8%	4%	6%	8%	10%	11%
Four	5%	2%	3%	4%	4%	5%
Five	2%	1%	1%	2%	2%	3%
Six and more	12%	5%	9%	13%	13%	14%
Total	100%	100%	100%	100%	100%	100%

Table53 Number of People Respondents Can Count on in Case of Troubles: ⑤Others

	10s	20s	30s	40s	50s	60s
None	67%	74%	72%	67%	62%	60%
One	6%	7%	5%	5%	6%	7%
Two	5%	5%	6%	8%	9%	11%
Three	5%	3%	3%	4%	6%	5%
Four	2%	1%	1%	1%	2%	2%
Five	2%	1%	1%	1%	2%	2%
Six and more	13%	8%	11%	13%	15%	13%
Total	100%	100%	100%	100%	100%	100%

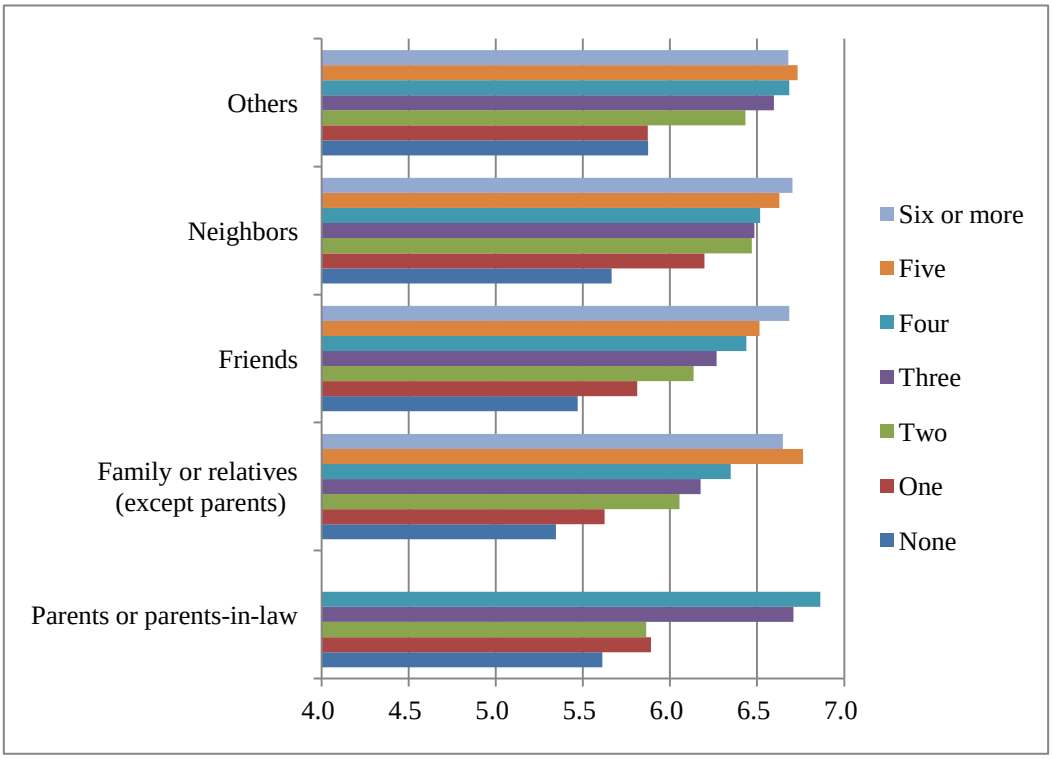
When comparing the percentage of the respondents who answered “none” in the online survey with that in direct-visit and self-completion questionnaires, the percentage was higher in the online survey, except for parents and parents-in-law (Table 54).

Table54 Percentage of Respondents Who Answered “None” By Survey (%)

	Online	Direct-visit and self-completion
Parents or parents-in-law	14.1	37.9
Family or relatives (except parents)	15.2	9.6
Friends	18.5	17.5
Neighbors	50.0	36.0
Others	66.4	55.2

In all categories, there was a positive correlation between the number of people respondents can count on and their level of current happiness.

Graph55 Level of Current Happiness By Number of People Respondents Can Count on in Case of Troubles



㉛Nursing care

To the question “Do you have family members and relatives who are a bedridden patient, and you or someone who live with you are the main caregiver,” approximately 18% of the respondents answered that they have at least one patient who are certified as Needed Long-Term Care (Table 55). There were more respondents who answered that they do not have any patient in the online survey than in the direct-visit and self-completion questionnaires, except for “a patient who is certified as Needed Long-Term Care”; however, the percentages of the responses in both surveys were not very different after including the number of respondents who did not choose any answer in the direct-visit and self-completion questionnaires (Table 56).

Table55 Percentage of Respondents Who Have Family Members Who Is Bedridden etc. (%)

	Do not have	Living with a patient	Not living with a patient
A patient who is certified as Needed Long-Term Care	81.8	4.4	13.8
A bedridden patient	94.5	1.2	4.4
A patient under the medical care	86.0	5.0	9.0
A patient who is certified as the disabled	85.7	5.6	8.7

Table56 (cf. Percentage of Responses in Direct-visit and Self-Completion Questionnaires, %)

	Do not have	Living with a patient	Not living with a patient	No Answer
A patient who is certified as Needed Long-Term Care	80.9	5.8	12.0	1.3
A bedridden patient	91.4	2.0	4.6	2.0
A patient under the medical care	81.9	6.1	10.0	2.0
A patient who is certified as the disabled	82.6	6.4	8.9	2.1

By age, the percentage of respondents who have at least one patient who are certified as Needed Long-Term Care was high among those in their 50s and 60s. Except for this, however, there was no major age difference.

Table57 Percentage of Respondents Who Have Family Members They Take Care of: By Age

①A Patient Who Is Certified as Needed Long-Term Care

	10s	20s	30s	40s	50s	60s
Do not have	91%	89%	87%	86%	73%	73%
Living with a patient	4%	2%	2%	3%	7%	6%
Not living with a patient	6%	9%	11%	11%	19%	20%
Total	100%	100%	100%	100%	100%	100%

②A Bedridden Patient

	10s	20s	30s	40s	50s	60s
Do not have	94%	95%	95%	95%	94%	93%
Living with a patient	3%	1%	1%	1%	1%	1%
Not living with a patient	3%	4%	4%	3%	5%	6%
Total	100%	100%	100%	100%	100%	100%

③A Patient under the Medical Care

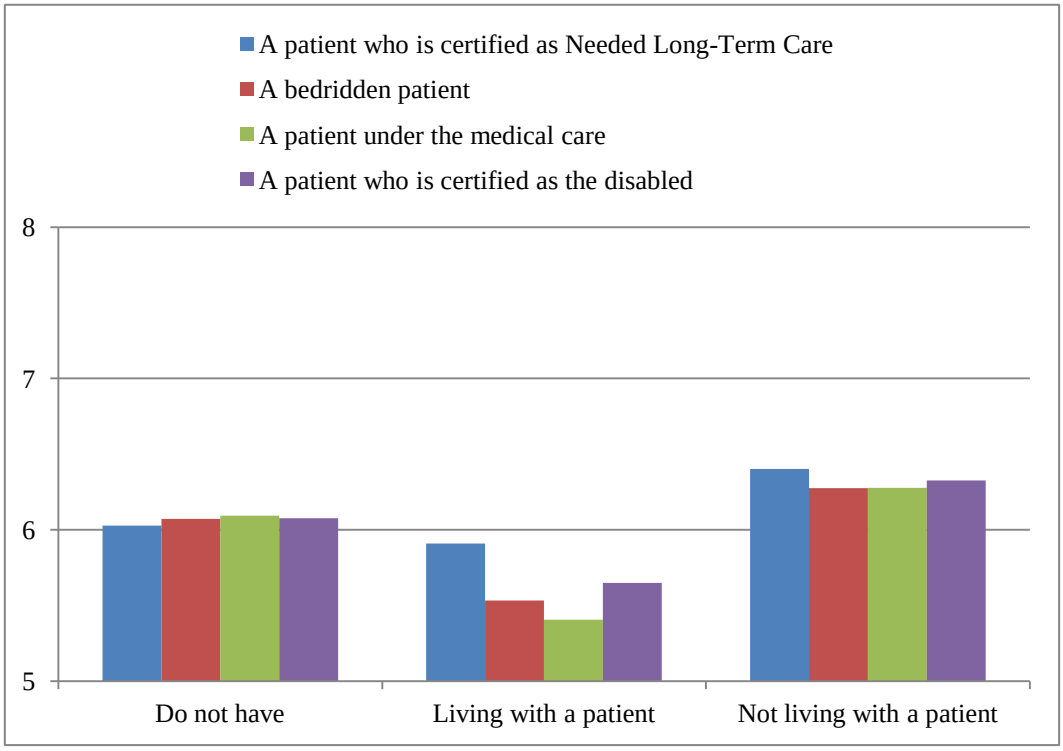
	10s	20s	30s	40s	50s	60s
Do not have	87%	88%	88%	86%	83%	85%
Living with a patient	8%	5%	4%	5%	6%	5%
Not living with a patient	6%	7%	8%	9%	11%	10%
Total	100%	100%	100%	100%	100%	100%

④A Patient Who Is Certified as the Disabled

	10s	20s	30s	40s	50s	60s
Do not have	87%	89%	88%	84%	82%	86%
Living with a patient	7%	4%	4%	6%	7%	6%
Not living with a patient	6%	7%	8%	10%	11%	8%
Total	100%	100%	100%	100%	100%	100%

On the other hand, similar to the result from direct-visit and self-completion questionnaires, the level of current happiness among respondents living with a patient was lower than among those not living with a patient.

Graph56 Level of Current Happiness By Family Members' Conditions



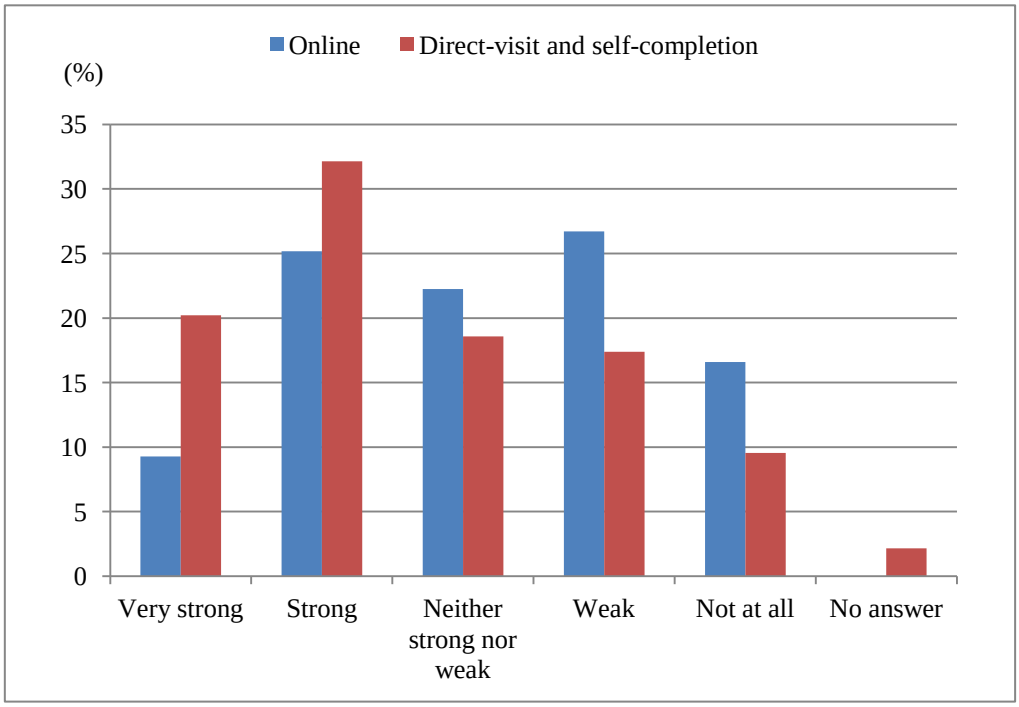
㉜Burden of nursing care

To respondents who have family members and relatives who are a bedridden patient, the survey additionally asked the question “How strong of a sense of burden are you feeling about the nursing?” There were slightly more respondents who feel a sense of burden than those who do not feel a sense of burden (Table 58). Compared with the result from direct-visit and self-completion questionnaires, the number of the respondents who feel a sense of burden was smaller (Graph 57).

Table58 Sense of Burden of Nursing Care

	No. of Respondents	Percentage (%)
Total	3,182	100.0
Very strong	295	9.3
Strong	801	25.2
Neither strong nor weak	708	22.3
Weak	850	26.7
Not at all	528	16.6
Strong~Very strong	1,096	34.4
Weak~Not at all	1,378	43.3

Graph57 Sense of Burden By Survey



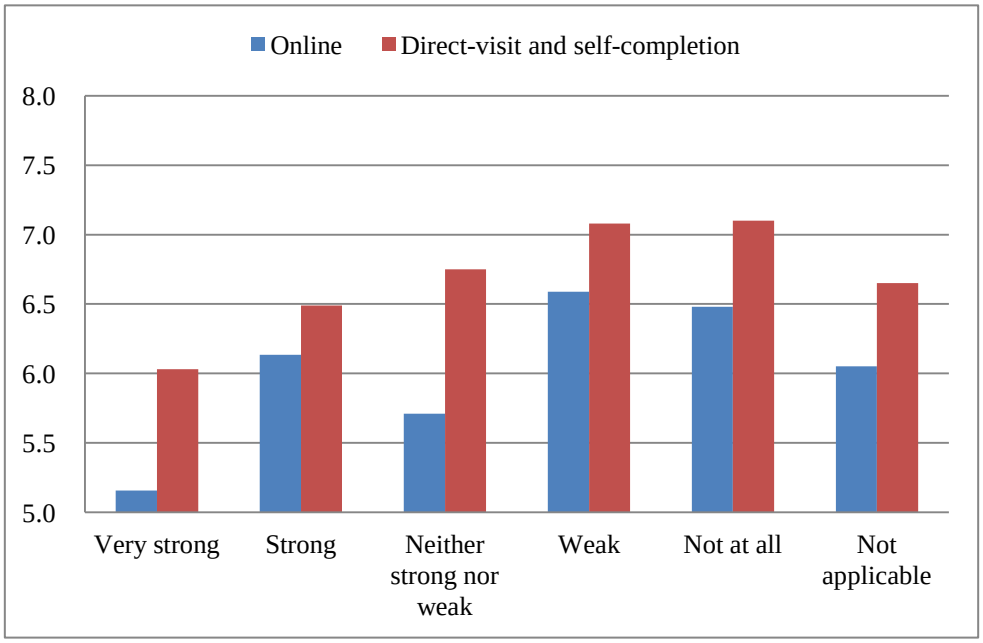
A sense of burden became stronger with age.

Table59 Sense of Burden By Age

	10s	20s	30s	40s	50s	60s
Very strong	5%	6%	6%	9%	10%	13%
Strong	15%	20%	15%	24%	32%	30%
Neither strong nor weak	26%	20%	25%	23%	22%	20%
Weak	21%	28%	30%	26%	25%	27%
Not at all	34%	28%	23%	18%	11%	10%
Total	100%	100%	100%	100%	100%	100%

The level of current happiness was low among those who answered that they feel a very strong sense of burden. Also, the level of current happiness among respondents who do not feel sense of burden was higher than among those who do not have any patient to take care of in a family. These results were consistent with the result from direct-visit and self-completion questionnaires. Yet, the level of current happiness among those who answered that they feel neither a strong nor weak sense of burden was lower than those who answered that they feel a strong sense of burden, which was different from the result from direct-visit and self-completion questionnaires.

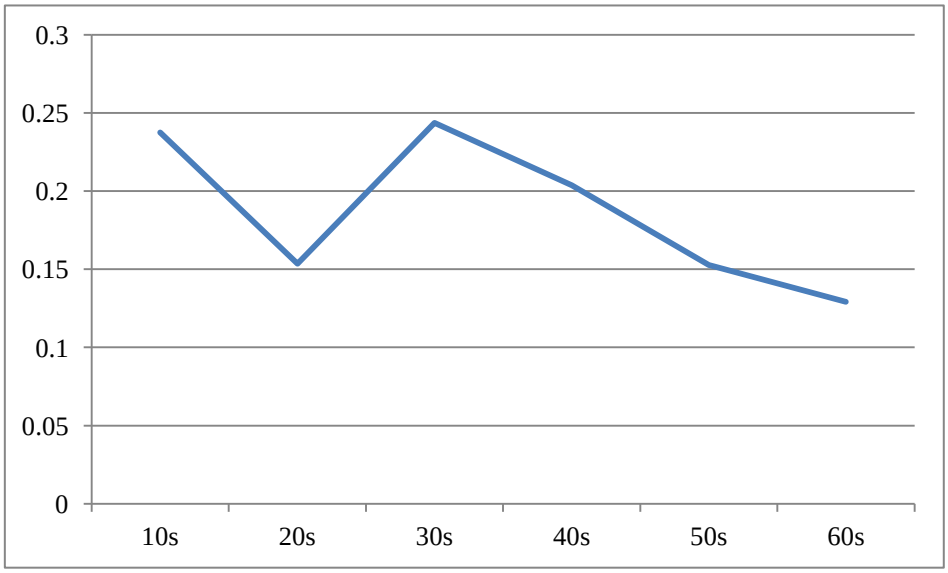
Graph58 Level of Current Happiness By Sense of Burden of Nursing Care: Comparison of Surveys



The correlation coefficients between a sense of burden and the level of current happiness were all significant at the 1% significance level for all age groups. The level of current happiness was higher as a sense of burden was weaker. This relationship was strong among those in their 10s, weakened among 20s, became strong again among 30s, and gradually declined among older respondents (Graph 59).

Graph59 Sense of Burden of Nursing Care and Level of Current Happiness By Age

(Happier as a sense of burden of nursing care is weaker)



㉝Depression scale

The survey asked questions from the Zung Self-rating Depression Scale (SDS)[7], which measures depressed mood, for example “I feel down-hearted and blue” and “morning is when I feel the best”. Table 60 shows the responses to each statement. Respondents mostly answered “a little of time” or “some of the time” to all statements except for the questions “I eat as much as I used to” and “I find it easy to do the things I used to”, whether the statement is positive or negative.

Table60 Responses to Each Question in the Zung Self-rating Depression Scale (%)

		A little of the time	Some of the time	Good part of the time	Most of the time
Negative	I feel down-hearted and blue	51.7	33.8	10.1	4.4
Positive	Morning is when I feel the best	44.6	29.6	16.5	9.2
Negative	I have crying spells or feel like it	65.0	24.6	7.9	2.5
Negative	I have trouble sleeping at night	55.3	28.1	11.2	5.4
Positive	I eat as much as I used to	8.2	9.1	16.0	66.7
Positive	I maintain normal level of sexual drive (want to go on a date with the opposite sex)	32.4	25.4	19.1	23.1
Negative	I notice that I am losing weight	79.6	13.1	5.1	2.2
Negative	I have trouble with constipation	62.5	22.7	8.6	6.2
Negative	My heart beats faster than usual	70.9	21.5	6.1	1.5
Negative	I get tired for no reason	31.9	39.2	18.8	10.2
Positive	My mind is as clear as it used to be	24.1	32.2	26.8	17.0
Positive	I find it easy to do the things I used to	11.7	19.2	28.8	40.3
Negative	I am restless and can’t keep still	62.2	27.5	7.9	2.4
Positive	I feel hopeful about the future	31.1	35.3	21.9	11.8
Negative	I am more irritable than usual	41.6	40.2	13.6	4.6
Positive	I find it easy to make decisions	19.0	35.6	29.7	15.7
Positive	I feel that I am useful and needed	26.5	42.4	22.3	8.8
Positive	My life is pretty full	25.2	33.8	28.0	13.0
Negative	I feel that others would be better off if I were dead	73.1	17.9	5.2	3.8
Positive	I still enjoy the things I used to do	22.5	30.2	29.7	17.6

Indexes of depression were constructed for positive statements as follows: “A little of the time”=4, “some of the time”=3, “good part of the time”=2, and “most of the time”=1; for negative statements as follows: “A little of the time”=1, “some of the time”=2, “good part of the time”=3, and “most of the time”=4. SDS score was calculated from the sum of all responses. The score between 41 and 49

[7] Depressed mood is one of the basic symptoms for depression, and means feeling down, such as “feeling blue” “feeling gloomy” and “feeling down-hearted.” Zung Self-rating Depression Scale is a questionnaire developed by Dr. Zung at Duke University (the U.S.) to assess depression. It includes 20 questions and uses self-rating on a 1-4 scale. It is used for a screening tool for depression or depressed states, or used to measure the effect of depression treatment. Questions ask affective, somatic, and psychological symptoms. Half of the questions are positive statements, and positive and negative statements are put in a random order so that respondents cannot tell the pattern.

implies that a respondent may be on the borderline between stress symptom and depression, and the score over 50 suggests that a respondent may have depression.

The average SDS score was 41.5, which is above the borderline, as respondents marked very low scores on positive statements. Careful interpretation is needed because this result can be biased due to survey methods.

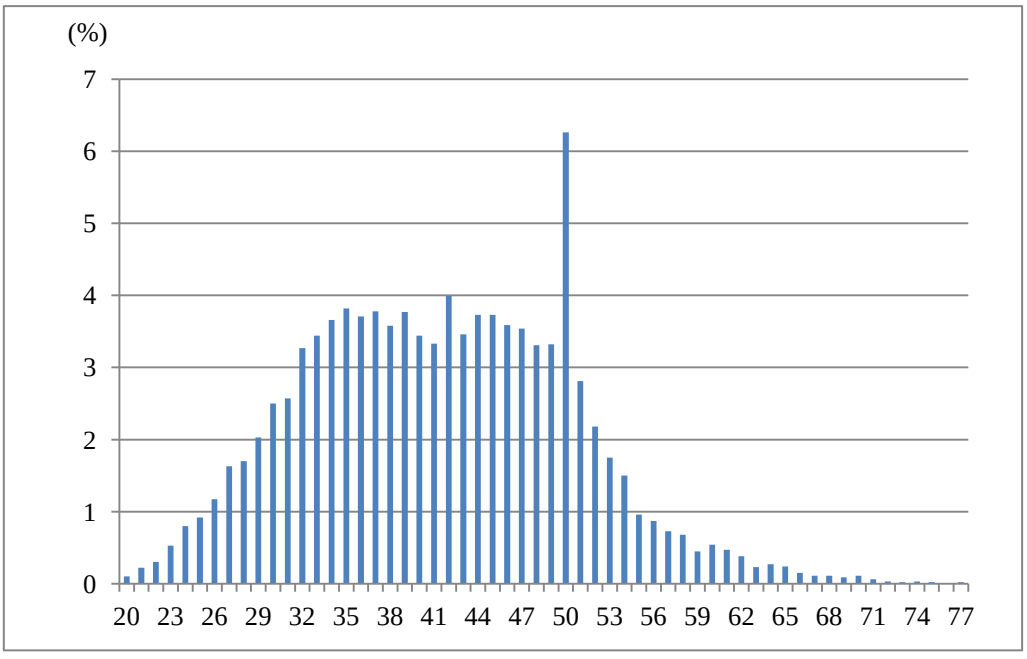
Table61 SDS By Sex

	Average	Standard deviation	No. of respondents
Men	41.3	9.1	5,576
Women	41.6	9.1	4,893
Total	41.5	9.1	10,469

Graph 60 shows the distribution of SDS score. It reveals that the percentage of respondents whose score was 50 was particularly high.

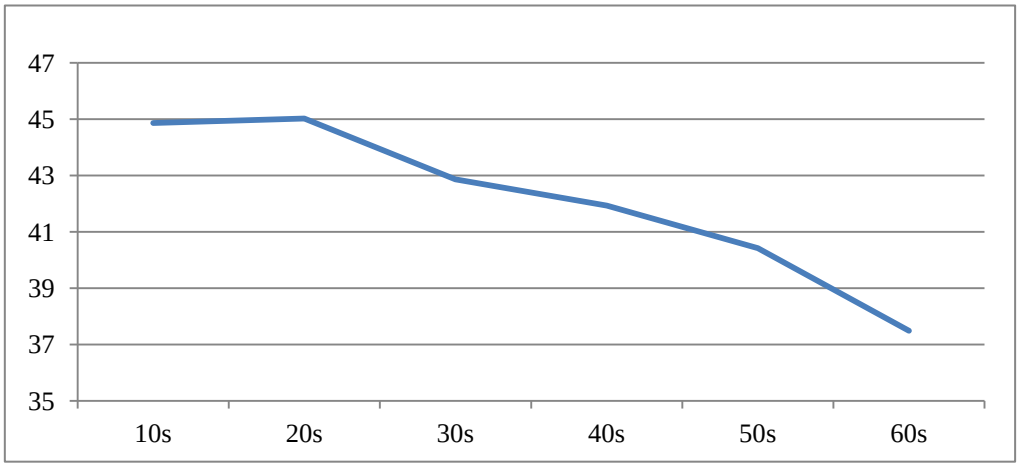
Graph60 Distribution of SDS Scores

(Horizontal: SDS, Vertical: Percentage of respondents to the score)



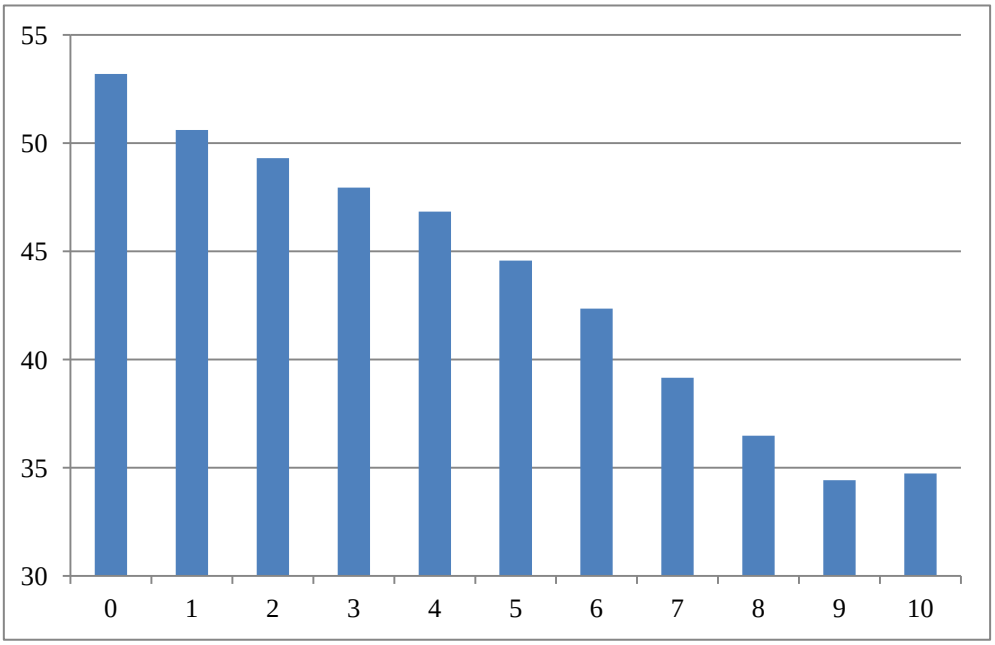
SDS score was higher among younger respondents, and it declined with age (Graph 61).

Graph61 SDS By Age



When looking at SDS score by the level of current happiness, it is clear that they were correlated. The correlation coefficients by age were -0.47 for 10s, -0.54 for 20s, -0.56 for 30s, -0.55 for 40s, -0.51 for 50s, and -0.46 for 60s. When the level of current happiness was higher than 7, SDS score was lower than 40 (Graph 62).

Graph62 SDS By Level of Current Happiness
(Vertical: SDS, Horizontal: Level of current happiness)



㉞Suicidal intent

To the question “Have you ever attempted to suicide or had serious suicidal intent?”, 9.7% of the respondents answered that they have attempted to suicide and 13.5% answered that they have had serious suicidal intent (Table 62). In the Survey of Attitudes toward Suicide Prevention, which the Cabinet Office separately conducted in January 2012, 23.4% of the respondents answered that they have had suicidal intent to the question “Have you ever had serious suicidal intent?” This result was consistent with the result from this online survey when the responses of “I have attempted to suicide” and “I have had serious suicidal intent” were added (23.2%).

Table62 Suicidal Intent

	No. of respondents	Percentage (%)
I have attempted to suicide	1,018	9.7
I have had serious suicidal intent	1,409	13.5
Never	7,290	69.6
Do not want to answer	752	7.2

By age, respondents in their 20s particularly had strong suicidal intent. Table 63 indicates the prevalence of suicidal intent in all age groups.

Table63 Suicidal Intent By Age

	10s	20s	30s	40s	50s	60s
I have attempted to suicide	13.9%	14.0%	11.7%	9.8%	8.1%	5.3%
I have had serious suicidal intent	14.3%	16.9%	15.3%	15.6%	12.8%	8.0%
Never	61.7%	60.3%	66.1%	68.2%	71.5%	80.7%
Do not want to answer	10.2%	8.8%	6.8%	6.5%	7.6%	5.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Additionally, the survey asked when they attempted to suicide or had serious suicidal intent if respondents chose either “I have attempted to suicide” or “I have had serious suicidal intent”. 21% answered that they attempted to suicide or had serious suicidal intent within a year, including “currently” and “within 3 months.” Also in the Survey of Attitudes toward Suicide Prevention, 22.7% indicated that they had suicidal intent within a year, which was consistent with the result from this online survey. Those who attempted to suicide or had serious suicidal intent within a year were 4.9% of the whole sample in this survey (Table 64).

Table64 When Respondents Had Suicidal Intent (%)

	No. of respondents	Percentage (%)
At this moment	135	5.6
Within 3 months	139	5.7
Within a year	236	9.7
Within 5 years	524	21.6
Within 10 years	414	17.1
More than 10 years ago	853	35.2
Do not want to answer	126	5.2

As the level of current happiness decreased, the percentage of respondents with suicidal intent increased. Among those who marked 0 for the level of current happiness, more than half answered that they have attempted to suicide or had serious suicidal intent (Table 65). When a dummy variable was constructed for this question (1 if they answer either to "I have attempted to suicide" or "I have had serious suicidal intent"), the correlation coefficient between suicidal intent and the level of current happiness was -0.1737, which was significant at the 1% significance level.

Table65 Percentage of Respondents Who Had Suicidal Intent By Level of Current Happiness

Level of Current Happiness	I have attempted to suicide	I have had serious suicidal intent	Never	Do not want to answer
0	30.6%	22.4%	33.9%	13.1%
1	15.1%	28.5%	49.7%	6.7%
2	18.7%	23.9%	49.0%	8.5%
3	14.3%	19.6%	53.8%	12.3%
4	12.2%	18.4%	57.2%	12.1%
5	9.3%	13.7%	68.6%	8.4%
6	8.2%	12.9%	70.9%	7.9%
7	8.3%	11.2%	75.6%	4.8%
8	6.1%	10.2%	78.4%	5.3%
9	8.1%	8.1%	80.4%	3.4%
10	10.0%	9.4%	75.7%	4.9%

In terms of the relationship between when respondents had suicidal intent, the level of current happiness, K6 score (mental health scale), and SDS score (self-rating depression scale), it is clear that those who recently had suicidal intent were unhappier, mentally unhealthier, and more depressed (Table 66).

Table66 Relationships between Suicidal Intent, Level of Current Happiness, K6, and SDS

	Level of Current Happiness	K6	SDS
At this moment	3.0	15.3	56.3
Within 3 months	4.3	12.5	52.8
Within a year	4.5	10.8	50.4
Within 5 years	5.4	9.2	46.6
Within 10 years	5.7	7.4	44.6
More than 10 years ago	6.1	5.8	41.2
Do not want to answer	4.5	10.8	51.1

Furthermore, indexes of the following variables were constructed for each prefecture: “I have attempted to suicide” (a dummy variable), “I have had serious suicidal intent” (a dummy variable), the level of current happiness, K6, SDS, and income level. To examine the relationship with actual suicide rate, the correlation coefficients were calculated between each of the indexes and suicide rate in each prefecture (2011, age-adjusted): 0.41 for “I have attempted to suicide”, 0.39 for K6, -0.51 for income level (significant at 1% significance level); -0.31 for the level of current happiness (significant at 5% significance level).

Translator:
Aya Isumi (Doctoral Student at Osaka School of International Public Policy, Osaka University)
B.A. in Human Sciences, Osaka University, Japan.
M.S. in Human Development and Family Studies, North Carolina State University, U.S.