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Public Perceptions toward Mental Illness in Japan

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Abstract

Aim—The purpose was to characterize public perceptions in Japan of mental illness and how they related to stigma-related attitudes for the same.

Methods—Data were obtained using a vignette survey conducted as a part of the Stigma in Global Context - Mental Health Study and contained a nationally representative sample ($n = 994$). The survey was conducted using a multi-mode approach (face-to-face interviews, the drop-off-and-pick-up, postal collection) from September to December 2006, with a multi-stage probability sample of Japanese residents aged 18–64 years. Respondents were randomly assigned one of four vignette conditions that described psychiatric disorders meeting the diagnostic criteria for schizophrenia and major depressive disorder (one vignette for each gender exhibiting each

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MK analyzed the data and drafted the manuscript and tables. TM, SK, JS, KS, CY, MM, and YY conceived and designed the study.

diagnosis). We compared respondents' stigma-related attitudes and perceptions toward mental illness between vignettes.

Results—Over 80% of Japanese participants believed that depressive disorder or schizophrenia could be cured via treatment. However, Japanese people still had relatively strong vigilance and denial of competency toward schizophrenia.

Conclusions—Participants expressed the belief that mental illnesses are curable, but stigma toward people with schizophrenia was still relatively strong.

Keywords

Stigma; Stigma-Related Attitudes; Mental Health; Japan; Depressive Disorder; Schizophrenia

1. Introduction

Stigma toward persons with mental health is a critical issue for people with mental disease worldwide (Thornicroft, 2006), primarily because stigma can prevent people with mental illness from seeking appropriate help (Corrigan, 2004; Pescosolido et al., 2008). Anti-stigma programs based on accurate observational study have been proven to improve help-seeking behavior and reduce the burden of mental illness on both individuals and society (Corrigan et al., 2012). Educational tools have also been found to reduce stigma effectively (Koike et al., 2016b), as have direct and positive social contact with people with mental illness (Mehta et al., 2015). However, generally anti-stigma programs were not successful in Japan, although some were innovative.

One reason such programs were not successful is that well-developed observational data are scarce. Ando et al. (2013) reviewed articles that examined mental-health-related stigma in Japan published from 2001 and 2013 by defining “stigma” as composed of three problems related to (i) knowledge, (ii) attitudes, and (iii) behavior. They found only 19 articles that examined stigma-related knowledge, attitudes and behavior (Ando et al., 2013). The three among the 19 articles compared Japan and Australia using community sample and focusing on schizophrenia and depression. Detailed description of schizophrenia as well as depression in Japan is not enough to develop programs based on evidence.

Data from other countries are hard to use to adopt changes in Japan because of cultural differences. There is evidence that stigma-related attitudes toward people with mental illness remain relatively high in Japan compared to other developed countries, including Australia (Griffiths et al., 2006). Stigma-related attitudes are said to increase the under-utilization of mental health services in Japan (Naganuma et al., 2006). Around 80% of those diagnosed with a disorder according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) were found not to have received any mental health services in the past 12 months (Naganuma et al., 2006). There is also evidence that stigma-related attitudes toward people with mental illness vary according to the disorder and are higher for schizophrenia than for depressive disorder (Reavley and Jorm, 2011; Sugiura et al., 2000).

Most anti-stigma programs focus on stigma-related knowledge and attitudes rather than stigma-related behavior because the former are more easily measured and because previous

studies have shown that stigma-related attitudes interfere with help-seeking and treatment adherence (Corrigan, 2004). Thus, a better understanding of the public's attitudes toward people with mental illness (including how they label people with these disorders and what they believe causes the disorders) based on observational study might improve anti-stigma programs.

Previous studies using convenience samples or Australian survey samples suggested that beliefs about the labeling and causes of mental illness can influence stigma-related attitudes (Matsunaga and Kitamura, 2016; Yap et al., 2013). Because stigma-related attitudes are strongly influenced by cultural context (Kido and Kawakami, 2013; Stefanovics et al., 2016), using a representative Japanese sample would lead to a more comprehensive understanding of the relationship between beliefs or perception of mental illness and stigma-related attitudes in Japan.

The purpose of this study was to observe and describe attitudes toward how people living in Japan respond to people with symptoms of depressive disorder or schizophrenia in day-to-day life. We also examined the relationships between perceptions and stigma-related attitudes toward people with mental illnesses.

2. Method

The target population was 18–64 years old. Eligible participants ($n = 1,800$) were recruited based on the basic resident register from 126 enumeration districts in Japan. The survey was conducted from September to December 2006. The survey was conducted with multiple modes (face-to-face interviews, the drop-off-and-pick-up method, and postal collection). In the drop-off-and-pick-up method, surveying people interact with potential respondents and hand-deliver questionnaires (Trentelman et al., 2016). We first sent letters to all the eligible participants, then interviewers visited participants' home and explained again about the study. When requested by participants, self-administered questionnaires were distributed. The field staff picked up self-administered questionnaires or postal collection was used. The survey was anonymous, and no written consent was obtained. The response rate for the Japanese sample was 55.4% ($n = 994$; male = 47.3%, female = 52.7%; average age 45.1 ± 12.9).

2.1 Procedure

This survey was conducted based on vignettes developed for the Stigma in Global Context - Mental Health Study (SGC-MHS) that describe people with symptoms of depressive disorder or schizophrenia. We chose these two mental disorders because they are the most prevalent in Japan (Ministry of Health Labour and Welfare, 2014). The survey began with the participant reading and/or hearing a vignette describing a person suffering from either schizophrenia or depressive disorder based on DSM-IV criteria. The vignettes were followed by a series of questions about the case. The Japanese survey team translated the instruments from the original English versions used in the SGC-MHS. The translation process was supported by the survey center of Indiana University. Ethics approval was granted by the Department of Medicine at the University of Tokyo, as well as Indiana University's institutional review board.

2.2 Vignettes

The vignettes used in this study were constructed by SGC-MHS to meet DSM-IV criteria for major depressive disorder or schizophrenia. However, to determine whether the public could identify these disorders before they proceeded to a chronic or severe course, we affixed no labels or descriptions fitting the diagnostic criteria to the survey questionnaire.

Respondents were randomly allocated one of the four vignettes (Figure 1). We assigned no names to subjects of the vignette. In this article, we focus on variations according to the disorder rather than gender of the vignette subject. Each participant was handed a card with the vignette printed on it and was also read the vignette by the interviewer. Afterward, respondents were queried about potential causes and possible labels.

2.3 Measures

Stigma-related attitudes were assessed using the items shown in Table 2. Participants answered these questions by choosing one of the following response options: 1 = *very likely*, 2 = *somewhat likely*, 3 = *not very likely*, or 4 = *not likely at all*.

The respondent characteristics included sociodemographic factors (sex, age, education, employment, household income, and size of community) and experience in psychiatric treatment. Respondents' answered on a measure developed by us their household income by 1 = *Has just about enough to live on but cannot afford more than that* to 4 = *Is able to lead an affluent life*. Respondents' perceptions of the condition depicted in the vignette were evaluated in terms of problem severity, cause, probability of cure, and recognition of mental illness. Respondents were asked to identify the causes of the conditions described in the vignettes via six items: the person's own bad character, a chemical imbalance in the brain, the way the person was raised, stressful circumstances in the person's life, a genetic or inherited problem, and "God's will." Specifically, respondents were asked, "In your opinion, how likely is it that A's situation might be caused by [CAUSE]?" Regarding problem severity, respondents were asked, "How severe would you say his/her mental health problem was?" For the probability of cure, respondents were asked, "How likely is it that A's situation will improve on its own? Or how likely is it that A's situation will improve with treatment?" Finally, concerning recognition, we asked, "How likely was it that the described person was experiencing a normal trouble, a mental illness, or a physical illness?" For these items, respondents answered using a 4-point Likert scale, as follows: 1 = *very likely*, 2 = *somewhat likely*, 3 = *not very likely*, or 4 = *not likely at all*.

2.4 Statistical Analysis

We first examined the frequency distributions of respondents' characteristics as well as respondents' perceptions. Subsequently, we conducted an exploratory factor analysis on the 15 stigma-related attitude items, using the principal axis factoring method. We chose the number of factors based on the theoretical meaningfulness and the factor loadings; items with factor loadings ≥ 0.40 were considered meaningful and therefore assigned to the given factor. We labeled each factor according to what we believed best characterized the items loaded onto the factor. The alpha coefficient was calculated for each factor. All four factors

were tested for normality using the Kolmogorov-Smirnov test. Due to the result of normality test, we used the nonparametric test in the subsequent analysis.

Next, we compared stigma-related attitudes toward people with mental illness by sex and the symptom of the person in the vignette, using Kruskal-Wallis test. Results were corrected through Bonferroni correction. All analyses were performed via SPSS Statistics 24.0 and SPSS Amos 22.0 (IBM Corp., Armonk, NY). The significance level was set at < 5%.

3. Results

Demographics are shown in Table 1. The frequencies for each variable are presented in Table 2. The 994 respondents were randomly presented one of the four vignettes as follows: Depressive Disorder/Man = 247 (24.8%), Depressive Disorder/Woman = 246 (24.7%), Schizophrenia/Man = 251 (25.3%), and Schizophrenia/Woman = 250 (25.2%). There were no significant differences in characteristics between the depressive disorder and schizophrenia vignette groups.

Table 2 shows respondents' perceptions of each vignette condition. Regarding the causes, significantly more people chose "own bad character," "chemical imbalance in the brain," and "way person was raised" as causes of schizophrenia than as causes of depressive disorder. By contrast, significantly more people chose "stressful circumstances in the person's life" as a cause of depressive disorder. Moreover, compared to schizophrenia, significantly more people felt that depressive disorder would cure itself naturally and that the depressive disorder described in the vignette was indicative of normal trouble. Significantly more people responded that the condition in the schizophrenia vignette was "not likely a physical problem" compared to that in the depressive disorder vignette.

Exploratory factor analysis of the 15 stigma-related attitudes revealed a four-factor model that demonstrated a good fit to the data (comparative fit index = .905, root mean square error of approximation = .070, $\chi^2/df = 5.92$). The Cronbach's α coefficients of the factors were > 0.7. We named each factor as follows: "sense of vigilance," "rejection," "stigma against treatment," and "denial of competency." Higher scores indicate a lower sense of vigilance, lower rejection, lower stigma toward treatment, and lower denial of competency. See Table 3 for details.

Figure 2 shows stigma-related attitudes toward people with mental illness compared among different vignettes. Respondents showed a significantly stronger sense of vigilance toward the Schizophrenia/Man vignette than the Depressive Disorder/Man vignette or Depressive Disorder/Woman vignette. Significantly more respondents showed stronger sense of vigilance toward the Schizophrenia/Woman vignette than the Depressive Disorder/Woman vignette. Differences were significant in rejection between the Depressive Disorder/Woman vignette and the Schizophrenia/Man vignette. As for denial of competency, respondents reported significantly stronger sense of denial of competency toward the Schizophrenia/Man or Schizophrenia/Woman vignette than the Depressive Disorder/Woman vignette. No significant difference was observed among any of the vignettes and the Depressive Disorder/Man.

4. Discussion

In this study, we collected representative observational data to explore the Japanese public's perceptions toward vignette conditions representing either depressive disorder or schizophrenia. Results indicated that more than 80% of participants believed that depressive disorder or schizophrenia could be cured via treatment. This suggests that people living in Japan recognized that mental illnesses are curable. More than half of the participants attributed the causes of the conditions in the vignettes to "the way person was raised." Such a stereotyped understanding might encourage stigma-related attitudes, especially toward people with schizophrenia. Taken together, these results indicate that patients with mental illnesses in Japan might be more vulnerable to stigma than in other developed countries. Of course, there is little evidence directly comparing the perceptions of people living in Japan with people from other developed countries (Griffiths et al., 2006); future research should elucidate this topic.

Some of our results do not appear to support those of previous studies on people's perceptions of mental illness. Griffiths et al. found that Japanese people's perception of the curability of depressive disorder or schizophrenia was low (Griffiths et al., 2006). A possible reason was that Griffiths et al.'s study used a schizophrenia vignette involving a person who shouted at and talked to someone invisible. By contrast, the present schizophrenia vignette included only auditory hallucinations. Thus, respondents might have thought that auditory hallucinations would disappear through treatment, whereas talking to an invisible person would not; perception of curability differs by culture and symptoms (al-Issa, 1995). The precise reasons for the differing perceptions toward depressive disorder require further investigation. Notably, 80–90% of participants indicated that the conditions described in both the depressive disorder and schizophrenia vignettes were severe; however, we found no significant association between the perceived problem severity and stigma-related attitudes, except for rejection and stigma toward treatment in the depressive disorder vignette.

When looking at participants' beliefs in the causes for depressive disorder and schizophrenia, the highest number of people listed individual factors such as "own bad character" or "how the person was raised" as causes. A slightly higher number of people, however, cited social factors such as "stressful circumstances in the person's life" as causes of depressive disorder rather than other causes. This supports previous findings that people tend to have a more negative perception of schizophrenia than of depressive disorder (Griffiths et al., 2006).

We found no significant difference among vignettes in participants' recognition of the conditions as mental illnesses; in fact, around 80–90% of respondents perceived that vignette conditions were mental health problems, which contrasts with previous findings suggesting that people living in Japan have relatively poor knowledge of mental illness (Ando et al., 2013). They also differ from the findings of Pescosolido et al. (Pescosolido et al., 2013), who reported that the correct identification rate for depressive disorder was significantly higher than that for schizophrenia. The survey title or design might affect the participants' response.

Significantly more participants recognized the depressive disorder condition as an illness compared to the schizophrenia condition. Considering that significantly more participants believed that schizophrenia was caused by a chemical imbalance in the brain or brain disease, people might perceive depressive disorder as a more day-to-day disease, while perceiving schizophrenia as out of the ordinary.

Figure 2 indicates that the Japanese in general have a stronger sense of vigilance and denial of competency toward people with symptoms of schizophrenia. There were no differences between responses to the vignettes in terms of stigma toward treatment. As results shown in Table 2, Japanese people seemingly have strong trust in treatment. There is evidence that the Japanese public's perception and knowledge of mental illness have increased in the roughly 20 years since the name of schizophrenia was changed for the purposes of stigma reduction (Koike et al., 2016a). Familiarity toward schizophrenia and other mental illnesses might be increasing as more articles and TV programs address such issues. This in turn might increase the likelihood that, when encountered in the real world, mental illness is met with lower sense of rejection or stigma toward treatment (Koike et al., 2016a).

This study has a few limitations. First, the data were collected in 2006 and the response rate of 55.4% is relatively low. However, to the best of our knowledge, there has not been research on this large a scale since.

This study's findings outline the Japanese public's perceptions of the observed symptoms of depressive disorder and schizophrenia using representative data. Social desirability might have affected the responses; however, the representative data provide new understanding of perceptions toward people with mental diseases, particularly in terms of how the perception of mental illnesses relates to stigma-related attitudes of the same. This offers information for researchers to use in developing anti-stigma programs.

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Highlights

- Most Japanese believed depressive disorder or schizophrenia can be cured.
- Japanese respondents recognized mental health symptoms in vignettes.
- Respondents expressed stronger stigma toward people with schizophrenia symptoms.

Major depressive disorder: *For the past two weeks, A has been feeling really down. A wakes up in the morning with a flat heavy feeling that sticks with A all day long. A isn't enjoying things the way A normally would. In fact, nothing gives A pleasure. Even when good things happen, they don't seem to make A happy. A pushes on through A's days, but it is really hard. The smallest tasks are difficult to accomplish. A finds it hard to concentrate on anything. A feels out of energy and out of steam. And even though A feels tired, when night comes A can't go to sleep. A feels pretty worthless and very discouraged. A's family has noticed that A hasn't been him/herself for about the last month and that he has pulled away from them. A just doesn't feel like talking.*

Schizophrenia: *Up until a year ago, life was pretty okay for A. But then, things started to change. A thought that people around A were making disapproving comments and talking behind A's back. A was convinced that people were spying on A and that they could hear what A was thinking. A lost A's drive to participate in A's usual work and family activities and retreated to A's home, eventually spending most of A's day in A's room. A was hearing voices even though no one else was around. These voices told A what to do and what to think. A has been living this way for six months.*

Figure 1.
Vignette scripts.

Figure 2.
Stigmatized attitudes toward mental illness compared among vignettes.

Table 1Characteristics of participants (*N* = 994)

	DD Man	DD Woman	S Man	S Woman	<i>p</i> ¹
	<i>n</i> = 247	<i>n</i> = 246	<i>n</i> = 251	<i>n</i> = 250	
	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	
Sex					
Male	125 (50.6)	113 (45.9)	118 (47.0)	114 (45.6)	0.667
Female	122 (49.4)	133 (54.1)	133 (53.0)	136 (54.4)	
Age					
18–19	6 (2.4)	7 (2.8)	5 (2.0)	3 (1.2)	0.972
20–29	32 (13.0)	27 (11.0)	34 (13.5)	35 (14.0)	
30–39	47 (19.0)	43 (17.5)	48 (19.1)	50 (20.0)	
40–49	50 (20.2)	58 (23.6)	55 (21.9)	56 (22.4)	
50–59	79 (32.0)	80 (32.5)	55 (21.9)	70 (28.0)	
60–64	33 (13.4)	80 (32.5)	27 (10.8)	36 (14.4)	
Education					
High school	177 (74.1)	163 (68.8)	193 (77.8)	175 (72.0)	0.149
Collage	62 (25.9)	74 (31.2)	55 (22.2)	68 (28.0)	
Employment					
Employed	187 (75.7)	187 (76.0)	189 (75.3)	195 (78.0)	0.897
Unemployed	60 (24.3)	59 (24.0)	62 (24.7)	55 (22.0)	
Household income					
Good	20 (9.3)	14 (6.4)	17 (7.6)	9 (4.1)	0.394
Enough	103 (48.1)	124 (56.6)	109 (48.4)	125 (57.3)	
Not enough	76 (35.5)	67 (30.6)	82 (36.4)	70 (32.1)	
Poor	15 (7.0)	14 (6.4)	17 (7.6)	14 (6.4)	
Size of community					
Large city or suburb	168 (68.0)	178 (72.4)	169 (67.3)	180 (72.0)	0.487
Small cities	79 (32.0)	68 (27.6)	82 (32.7)	70 (28.0)	
Experience in psychiatric treatment					
Yes	17 (6.9)	13 (5.3)	12 (4.8)	16 (6.5)	0.743

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	DD Man	DD Woman	S Man	S Woman	p^I
No	230 (93.1)	233 (94.7)	236 (95.2)	232 (93.5)	

Abbreviations: DD = Depressive Disorder Vignette; S = Schizophrenia Vignette.

^I Chi-square test

Table 2Respondents' perception toward vignette condition ($n = 997$)

	DD Man	DD Woman	S Man	S Woman	
	$N = 247$	$N = 246$	$N = 251$	$N = 250$	
	$n(\%)^1$	$n(\%)^1$	$n(\%)^1$	$n(\%)^1$	P
Respondents' assessment of problem severity					0.216 ²
Very severe	161 (65.2)	144 (58.5)	164 (65.9)	175 (70.0)	
Somewhat severe	76 (30.8)	92 (37.4)	70 (28.1)	63 (25.2)	
Not likely severe	10 (4.0)	9 (3.7)	13 (5.2)	11 (4.4)	
Not severe at all	0 (0.0)	1 (0.4)	2 (0.8)	1 (0.4)	
Causes ³					
Own bad character	41 (16.6)	40 (16.3)	75 (29.9)	76 (30.4)	<.001 ⁴
Chemical imbalance in the brain	101 (40.9)	111 (45.1)	138 (55.0)	111 (44.4)	.012 ⁴
Way person was raised	125 (50.6)	121 (49.2)	168 (66.9)	163 (65.2)	<.001 ⁴
Stressful circumstances in the person's life	239 (96.8)	242 (98.4)	234 (93.2)	241 (96.4)	.024 ⁴
Genetic or inherited problem	62 (25.1)	64 (26.0)	74 (29.5)	65 (26.0)	.697 ⁴
God's will	16 (6.5)	14 (5.7)	17 (6.8)	12 (4.8)	.789 ⁴
Bad luck	52 (21.1)	56 (22.8)	52 (20.7)	48 (19.2)	.811 ⁴
Probability to cure					
Cure naturally					
Very likely	45 (18.4)	55 (22.5)	42 (17.0)	48 (19.4)	<.001 ²
Somewhat likely	122 (49.8)	119 (48.8)	89 (36.0)	93 (37.7)	
Not very likely	69 (28.2)	62 (25.4)	93 (37.7)	85 (34.4)	
Not likely at all	9 (3.7)	8 (3.3)	23 (9.3)	21 (8.5)	
Cure by treatment					
Very likely	139 (56.5)	146 (59.3)	127 (50.6)	135 (54.4)	0.157 ²
Somewhat likely	96 (39.0)	91 (37.0)	106 (42.2)	100 (40.3)	
Not very likely	11 (4.5)	9 (3.7)	15 (6.0)	13 (5.2)	
Not likely at all	0 (0.00)	0 (0.00)	3 (1.2)	0 (0.00)	

Diagnosis	DD Man	DD Woman	S Man	S Woman	
Normal troubles					
Very likely	53 (21.8)	58 (23.7)	53 (21.1)	43 (17.6)	0.466 ²
Somewhat likely	128 (52.7)	125 (51.0)	117 (46.6)	127 (51.8)	
Not very likely	53 (21.8)	51 (20.8)	62 (24.7)	59 (24.1)	
Not likely at all	9 (3.7)	11 (4.5)	19 (7.6)	16 (6.5)	
Mental illness					
Very likely	134 (54.7)	129 (52.4)	137 (54.6)	129 (52.2)	0.879 ²
Somewhat likely	96 (39.2)	97 (39.4)	92 (36.7)	102 (41.3)	
Not very likely	13 (5.3)	17 (6.9)	17 (6.8)	11 (4.5)	
Not likely at all	2 (0.8)	3 (1.2)	5 (2.0)	5 (2.0)	
Physical illness					
Very likely	28 (11.6)	33 (13.5)	26 (10.4)	24 (9.8)	0.04 ²
Somewhat likely	119 (49.4)	130 (53.1)	100 (39.8)	109 (44.3)	
Not very likely	69 (28.6)	64 (26.1)	95 (37.8)	90 (36.6)	
Not likely at all	25 (10.4)	18 (7.3)	30 (12.0)	23 (9.3)	

Abbreviations: DD = Depressive Disorder Vignette; S = Schizophrenia Vignette.

¹ Denominator is the number of Depression/Man, Depression/Woman, Schizophrenia/Man, and Schizophrenia/Woman

² Mann-Whitney U-test

³ Sum of “Very likely” and “Somewhat likely”

⁴ Chi-square test

Table 3

Factor analysis on stigmatizing response

	α	Score^I
Sense of Vigilance		10.6 $\pm$ 2.6
Being around X would Make Me Feel Uncomfortable	0.803	
People like X are Hard to Talk to		
Being around X would Make Me Feel Nervous		
People like X are Unpredictable		
Rejection		16.9 $\pm$ 2.4
X should Feel Afraid to Tell about his Situation	0.701	
X s Family Better Off if Kept Secret		
X should Feel Embarrassed		
Person like X has no Hope of Being Accepted as Member		
People like X shouldn't be Allowed to Hold Public Office		
Stigma against Treatment		9.3 $\pm$ 1.8
X would Lose Friends if People Know his/her Treatment	0.748	
Getting Treatment would Make X Outsider in Community		
X s Opportunities Limited if people Know his/her Treatment		
Denial of Competency		7.5 $\pm$ 2.1
People like X Shouldn't be Allowed to Supervise Others at Work	0.748	
People like X Shouldn't be Allowed to Teach Children		
People like X Shouldn't be Allowed to Have Children		

^I Lower score means stronger stigma