



Workplace Social Distance toward Psychiatric Patients among Employers

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Author's contribution

The sole author designed, analyzed and interpreted and prepared the manuscript.

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ABSTRACT

Employment-related problems of psychiatric patients are attracting attention in the field of mental health and welfare. Employers' social distance from psychiatric patients negatively influences patients' chances to work. Therefore, social distance should be carefully measured and evaluated among employers. In this study, we developed the Workplace Social Distance Scale (WSDS), rephrasing the eight items of the Japanese version of the SDS to apply to the work setting in Japan. We examined the reliability and validity of the WSDS among 938 employers. Factor analysis extracted two factors from the scale items: 'negative factor' and 'positive factor.' Cronbach's alpha coefficient for the WSDS was 0.821. In the scores for the test and the retest, a significant correlation was seen for the scale overall and respective subscales, although the correlation for positive items was somewhat low, at 0.415. In addition, the WSDS was significantly correlated with the Japanese version of the SDS. These findings suggest that the WSDS represents an approximation of social distance in the workplace among employers. Our study assessed the reliability and validity of the newly developed WSDS for measuring social distance among employers in Japan. Future studies should investigate the reliability and validity of the scale in other countries.

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1. INTRODUCTION

Studies on attitudes towards psychiatric patients have been conducted all over the world [1-4]. Negative perceptions of psychiatric patients is one reason for the loss of employment opportunities [5,6]. Employers do not want to hire psychiatric patients, because they regard them as dangerous or underestimate their abilities [7-9]. In attitudinal studies, researchers have investigated this issue by measuring the emotion employers express towards psychiatric patients. For example, Manning et al. [10] have reported that considerable resistance, stigma and ignorance were observed at the time of employment of psychiatric patients. Glozier [11] found that, when employers were given vignettes of job applicants identical except for diagnoses, the presence of depression significantly reduced the chances of employment, compared with that of diabetes. This stigmatisation was based upon perceptions of poor work performance, rather than expectations of future absenteeism. A study on employers in Beijing suggested a lower possibility of being hired for psychiatric patients than for physically handicapped people [12].

The scales used to measure attitudes in the studies cited above were sometimes original measures without proven reliability [10,11], or scales commonly used in surveys [12]. Work-related questions are rarely found in assessments of employers' attitudes. Diksa and Rogers [13] developed the Employer Attitude Questionnaire (EAQ), administered by telephone survey to 373 employers in Suffolk County, Massachusetts, to clarify the relationship between employer characteristics and concerns about hiring psychiatric patients. This scale adopted well-founded sampling, taking the standard error into consideration, and its validity was proven in content and structure. However, it had a limitation in the possibility of generalisation, because the participants were all from a restricted geographical area. In terms of reliability, only internal consistency was tested.

Social distance has been investigated by measuring the emotional distance a subject expresses from psychiatric patients [14-16]. Greater social distance is associated with negative images of psychiatric patients [17,18] and can also affect their employment. For this reason, there is a need for studies on social distance among employers. Because work-

related items are rarely found on assessment scales, it is unclear whether employers typically experience work-related social distance from psychiatric patients. To address the need for a work-related assessment scale, in the present study, we rephrased the eight items of the Social Distance Scale, Japanese version (SDSJ) to apply to the work setting and then administered the new scale to a sample of psychiatric patients.

2. METHODS

2.1 Subjects

The participants were extracted from a large database of 2,300,000 candidates administered by a private Japanese company specialising in questionnaire research. Participants were selected from those who agreed to be asked about private information such as the illness (including mental illness) status of themselves and their families and to respond twice (with the second questionnaire following the first by one week). Sex, region and company size were used as stratification variables, and a stratified random sample was drawn. The final number of the participants was 938 executives, defined as those involved in the hiring of employees.

2.2 Instrument

Three questionnaires were administered to the employers in Japan: the Social Distance Scale Japanese version (SDSJ), the Workplace Social Distance Scale (WSDS) and Link's Devaluation-Discrimination Measure (DDM). The SDSJ, an eight-item inventory [19] adapted from the Whatley's Scale [20], was designed to measure social distance towards schizophrenia. The SDSJ is a self-report inventory that can be used by psychiatric nurses and medical students, as it was modified by rephrasing portions of the original scale. Makita [19] created the Japanese version and verified its validity in Japan, obtaining a Cronbach's alpha value of 0.849, which indicates good reliability. For each of the eight items, respondents were asked to report how often each statement is true on a scale ranging from 1 (0 points) to 4 (3 points). Totalled responses resulted in a score ranging from 0 to 24, with higher scores indicating higher levels of social distance.

The WSDS was created by modifying the SDSJ, changing the eight SDSJ items to apply to

psychiatric patients and employers. In other words, it created a scale that could measure both the psychiatric patients' social distance towards themselves (self-stigma) and the employers' social distance from the psychiatric patients (stigma). Cronbach's alpha has indicated good reliability for measuring self-stigma among psychiatric patients [21]. In this research, I will examine the reliability and validity of the WSDS for employers. The WSDS, like the SDSJ, is an eight-item self-report inventory with a total score ranging from 0 to 24 (Table 1).

Next, I used the DDM, a scale used internationally for stigma measurement [22], to test the validity of the WSDS. The DDM has 12 items rated on a four-point Likert scale ('strongly agree' = 4, 'tend to agree' = 3, 'tend to disagree' = 2, 'strongly disagree' = 1). Items 1, 2, 3, 4, 8 and 10 were reverse-scored. A higher score on the DDM indicates greater stigma. Social distance and stigma are synonymous measures of attitude [23]. Therefore, in this research, I aimed to measure the employers' social distance and stigma towards psychiatric patients and test the reliability and validity of the WSDS.

2.3 Analysis

All analyses were performed using IBM SPSS Statistics for Windows, Version 20.0 (Armonk, NY: IBM Corp). Descriptive data analysis was conducted by calculating frequencies, mean scores and standard deviations.

Pearson's correlation coefficient was used to examine the relationship between the WSDS and the SDSJ. The method of factor analysis was principal axis factoring with promax rotation. The internal consistency of the WSDS was tested using Cronbach's alpha coefficient. In addition, the test-retest reliability of the WSDS was assessed. The WSDS was re-examined following 1 week in 938 subjects recruited from the original sample, and Pearson's correlation coefficient for each of the two subscales was calculated. To test the validity of the WSDS, I investigated the similarity and correlation between the factors of the WSDS and those of the SDSJ. I also examined the correlation between the SDSJ and the DDM.

2.4 Ethical Considerations

The research was consistent with the principles outlined in an internationally recognised standard (the Helsinki Declaration) for the ethical conduct

of human research. Informed consent (web-based) was obtained from all participants prior to participation. The participants were told that the content of the investigation would be used for research only, that they could withdraw from the study at any time, that their participation would be kept confidential and that all data would be handled anonymously. Approval to conduct this research was obtained from the psychiatric hospital and the Graduate School of Medicine, Tohoku University, Japan.

3. RESULTS

3.1 Participants

In total, we obtained valid responses from 938 employers. The participants worked for a range of company types: 330 for small-scale companies (35.2%), 270 for middle-scale companies (28.8%) and 338 for large-scale companies (36.0%). The sample consisted of 870 men (92.8%) and 68 women (7.2%). In terms of age, 373 participants (39.8%) were in their 50s, and 348 (37.1%) were in their 40s. The participants reported working in manufacturing (234 participants, 24.9%); wholesale, finance, insurance and real estate (205 participants, 21.9%); and in agriculture, forestry, fishery and construction (88, 9.4%).

3.2 WSDS

The factor analysis of the WSDS was based on data obtained from the responses of the 938 employers. The mean score on the WSDS for employers was 11.13 (SD = 3.817), and the data displayed a normal distribution. No significant differences in WSDS test scores were observed by company size or age. A scree plot of eigenvalues indicated that a two-factor model was reasonable. Using principal axis factoring with promax rotation, on the basis of the component items, two factors emerged and were labelled 'negative factor' and 'positive factor' (Table 1). The reliability of the WSDS was calculated as an index of internal consistency (Cronbach's alpha). Cronbach's alpha was 0.821 overall, 0.879 for the negative factor subscale, and 0.414 for the positive factor subscale (Table 2). The test-retest reliability of the WSDS is shown in Table 3. In the scores for the test and the retest, significant correlations were seen for the scale overall and for both subscales, although the correlation for positive items was somewhat low (0.415).

3.3 WSDS and SDSJ

Cronbach's alpha for the SDSJ was 0.827 overall for the 938 respondents, and we found a significant positive correlation between the total scores on the SDSJ and the WSDS ($r = 0.824$, $p < 0.001$, Table 4). In terms of the relationship between the SDSJ and the WSDS subscales, we observed positive correlations between the SDSJ and both the negative factor ($r = 0.801$, $p < 0.001$) and the positive factor ($r = 0.379$, somewhat low, $p < 0.001$).

3.4 Comparison with DDM

We found a significant positive correlation between the total scores on the SDSJ and the DDM ($r = 0.43$, somewhat low, $p < 0.001$). We also found a significant positive correlation between the total scores on the WSDS and the DDM ($r = 0.382$; low, $p < 0.001$).

4. DISCUSSION

Because the applicability of WSDS among psychiatric patients has been verified [21], and it has been demonstrated to measure self-stigma, this study surveyed a sample of employers to test the reliability and validity of the scale for measuring work-related social distance in this group. The overall Cronbach's alpha coefficient

was 0.821 for the WSDS. In factor analysis, Cronbach's alpha was 0.879 for the negative factor, but it was somewhat lower (0.414) for the positive factor. The test-retest reliability for positive items was also low (0.415), indicating fluctuation in the values for positive items. Reliability was established regarding the negative factor subscale.

Another aim of this study was to test the construct validity of WSDS. The two WSDS factors extracted in this study (negative factor and positive factor) were similar to the two factors of the SDSJ [19]. The SDSJ subjects were psychiatric nurses and medical students, and the factors were divided into 'low acceptance factors' and 'high acceptance factors'. For the 'low acceptance factor' of the SDSJ, Cronbach's alpha was 0.712, whereas it was 0.655 for the 'high acceptance factor'. This showed a certain degree of reliability. In the WSDS, for the 'negative factor', Cronbach's alpha was 0.879, whereas it was 0.414 for the 'positive factor'. This result means that the validity of WSDS was supported.

To proceed with the test of construct validity, it will be necessary to test the similarity in the factor structure between SDSJ used as a comparative scale and other scales. However,

Table 1. Factor analysis of the workplace social distance scale item scores

Item	Item content	Factor loadings		Communality
		Factor I (negative factor)	Factor II (positive factor)	
Factor I (negative factor)				
1	It is best not to associate with a co-worker with psychosis who has been in a mental hospital.	0.806	-0.05	0.639
3	It would bother me to work next to a co-worker with psychosis.	0.772	-0.007	0.595
6	Bosses with psychosis should not be allowed to teach how to work at the workplace.	0.772	-0.093	0.58
5	I would rather not hire a person with psychosis who had been in a hospital.	0.754	0.144	0.627
4	I would not ride in a car driven by a co-worker with psychosis.	0.686	0.112	0.509
8	I would be against any secretary of mine marrying a man with psychosis.	0.656	-0.075	0.419
Factor II (positive factor)				
2	It is wrong to shy away from a co-worker with psychosis.	0.247	0.23	0.133
7	If I needed a babysitter at the in-house nursery, I would be willing to hire a woman with psychosis.	-0.053	0.889	0.778

Table 2. Internal consistency of the workplace social distance scale

	Cronbach's alpha
Total scores	0.821
Subscales	
Factor I (negative factor)	0.879
Factor II (positive factor)	0.414

Table 3. Test-retest reliability of the WSDS

	Mean	SD	1 week later mean	SD	n	r ^s
Total scores	11.13	3.817	11.53	3.813	938	0.668*
Subscales						
Factor I(negative factor)	11.13	3.383	8.43	3.386	938	0.589*
Factor II (positive factor)	3.06	1.147	3.09	1.151	938	0.415*

* $p < 0.001$, ^s = Pearson's correlation coefficient

Table 4. Correlations between the WSDS and the SDSJ

	WSDS [†]		
	Total scores	Factor I (negative factor)	Factor II (positive factor)
SDSJ[‡]	0.824*	0.801*	0.379*

[†] = Workplace Social Distance Scale;

[‡] = Social Distance Scale, Japanese version.

* $p < 0.001$

among the scales used for surveys of employers' attitudes towards psychiatric patients, very few have been demonstrated to be reliable and valid [13,24]. The Attitudes toward Employment of Psychiatric Disability scale (ATEP), which Ozawa and others [24] created independently, is a scale targeting employers in the transport sector. Its reliability has been verified by internal consistency tests and the test-retest method; its content validity and structural validity have also been demonstrated. ATEP II, a simpler version of the ATEP, has nine factors: 'eagerness to hire psychiatric patients', 'limiting the psychiatric patients' activities', 'trust for psychiatric patients', 'eagerness to prepare for accepting psychiatric patients', 'regarding psychiatric patients as dangerous', 'careful job appointment of psychiatric patients', 'efforts towards employment management of psychiatric patients', 'merits to hire psychiatric patients' and 'employment criteria focusing on attitude' [25]. These factors are clearly different from those of the SDSJ. It may be necessary to obtain a survey result targeting employers in general, not limiting respondents to those in the transport sector as in the ATEP, and to compare the factor structure between that result and the SDSJ. Otherwise, it should measure employers' attitudes towards psychiatric

patients with other scales, and it may be necessary to compare the results with those of the SDSJ.

At this point, this study tried to test the criterion-related validity. To accomplish this, this study tested the correlation between the DDM and the SDSJ among the same subjects. The result was $r = 0.43$ ($p < 0.001$). This figure indicates a medium-range correlation. Next, this study tested the correlation of DDM and WSDS. The result was $r = 0.382$ ($p < 0.001$). This figure indicates a weak correlation. In other words, consequently, these results suggest the concurrent validity of the WSDS.

Last, this study found a positive correlation between total WSDS and SDSJ scores ($r = 0.824$). In addition, it observed a positive correlation between the SDSJ and each of the two WSDS subscales (negative factor and positive factor). These results also suggest the concurrent validity of the WSDS.

4.1 Challenges

There is a need to deepen the analysis of these research results and to find the characteristics of employers' social distance from psychiatric patients. The obtained results will be useful to identify the employers with great social distance, who can then be designated as one of the targets of working support, which will be developed in the future.

Notably, study results on attitudes towards psychiatric patients vary from country to country. For example, Haraguchi et al. [26] reported a difference in social distance towards patients with schizophrenia among medical staff in Japan

and China. Although we have demonstrated that the reliability and validity of the WSDS have been established among Japanese employers, these issues have not been investigated in other countries. It is crucial for us to determine whether the WSDS is also reliable and valid outside of Japan. The WSDS is useful for promoting psychiatric patients to start working, so we hope it will be used actively.

5. CONCLUSION

This study assessed the reliability and validity of the WSDS for measuring social distance from psychiatric patients among employers in Japan. Future studies should investigate the reliability and validity of the scale in other countries.

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COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

1. Chan JY, Mak WW, Law LS. Combining education and video-based contact to reduce stigma of mental illness: "The Same or Not the Same" anti-stigma program for secondary schools in Hong Kong. *Social Science & Medicine*. 2009; 68: 1521-6. DOI:10.1016/j.socscimed.2009.02.016. Epub 2009 Mar 11.
2. Corrigan PW, Morris SB, Michaels PJ, Rafacz JD, Rusch N. Challenging the public stigma of mental illness: A meta-analysis of outcome studies. *Psychiatric Services*. 2012;63:963-973.
3. Lysaker PH, Davis LW, Warman DM, Strasburger A, Beattie N. Stigma, social function and symptoms in schizophrenia and schizoaffective disorder: Associations across 6 months. *Psychiatry Research*. 2007;149:89-95.
4. Yoshii H, Watanabe Y, Kitamura H, Nan Z, Akazawa K. Stigma toward schizophrenia among parents of junior and senior high school students in Japan. *BMC Research Notes*. 2011;4:558.
5. M L Ellison, Z Russinova, K L MacDonald-Wilson, Lyass A. Patterns and correlates of workplace disclosure among professionals and managers with psychiatric conditions. *Journal of Vocational Rehabilitation*. 2003; 18:3-13.
6. MacDonald-Wilson KL. Managing disclosure of psychiatric disabilities to employers. *Journal of Applied Rehabilitation Counseling*. 2005 36:11-21.
7. Link BG. Mental patient status, work, and income: an examination of the effects of a psychiatric label. *American Sociological Review*. 1982;47:202-215.
8. Scheid TL. Compliance with the ADA and employment of those with mental disabilities, in *Employment, Disability, and the Americans with Disabilities Act: Issues in Law, Public Policy, and Research*. Edited by Blanck PD. Evanston, Ill, Northwestern University Press; 2000.
9. Webber A, Orcutt JD. Employers' reactions to racial and psychiatric stigmata: A field experiment. *Deviant Behaviour*. 1984;5: 327-336.
10. Manning C, White PD. Attitudes of employers to the mentally ill. *Psychiatric Bulletin*. 1995;19:541-543.
11. Glozier N. Workplace effects of the stigmatization of depression. *Journal of Occupational and Environmental Medicine*. 1998;40:793-800.
12. Corrigan PW, Kuwabara S, Tsang H, Shi K, Larson J, Lam CS, Jin S. Disability and work-related attitudes in employers from Beijing, Chicago, and Hong Kong. *International Journal of Rehabilitation Research*. 2008;31:347-350.
13. Diksa E, Rogers ES. Employer concerns about hiring persons with psychiatric disability: Results of the Employer Attitude Questionnaire. *Rehabilitation Counseling Bulletin*. 1996;40:31-44.
14. Bella-Awusah T, Adedokun B, Dogra N, Omigbodun O. The impact of a mental health teaching programme on rural and urban secondary school students' perceptions of mental illness in southwest Nigeria. *Journal of Children & Adolescent Mental Health*. 2014;26:207-15. DOI:10.2989/17280583.2014.922090.
15. Cheng ZH. Asian Americans and European Americans' stigma levels in response to biological and social explanations of depression. *Social Psychiatry and*

- Psychiatric Epidemiology. 2014;25.
16. Van Boekel LC, Brouwers EP, van Weeghel J, Garretsen HF. Comparing stigmatising attitudes towards people with substance use disorders between the general public, GPs, mental health and addiction specialists and clients. *International Journal of Social Psychiatry*. 2014;9.
 17. Conrad I, Schulze B, Corrieri S, Heider D, Schomerus G, Riedel-Heller SG. The film festival "AUSNAHME ZUSTAND" (State of Emergency) - Do feature films and documentaries on mental health reduce stigma and influence help-seeking attitudes? *Psychiatry Research*. 2014; 19(220):1043-1050.
DOI:10.1016/j.psychres.2014.09.006.
 18. Makowski AC, Mnich EE, Angermeyer MC, Lowe B, von dem, Knesebeck O. Sex differences in attitudes towards females with eating disorders. *Eating Behaviors*. 2015;16:78-83.
DOI:10.1016/j.eatbeh.2014.10.017.
 19. Makita K. Development and reliability of the Japanese language version of Social Distance Scale (SDSJ). *Japanese Bulletin of Social Psychiatry*. 2006;14:231-241.
 20. Whatley C. Social attitudes towards discharge mental patients. *Social Problems*. 1959;6:313-320.
DOI:10.1525/sp.1959.6.4.03a00050
 21. Yoshii H, Mandai N, Saito H, Akazawa K. Reliability and validity of the workplace social distance scale. *Global Journal of Health Science*. 2015;7:46-51.
 22. Link BG. Understanding labelling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *American Sociological Review*. 1987;52:96-112.
 23. Ling Y, Watanabe M, Yoshii H, Akazawa K. Characteristics linked to the reduction of stigma towards schizophrenia: A pre-and-post study of parents of adolescents attending an educational program. *BMC Public Health*. 2014;14:258.
 24. Ozawa A, Yaeda J. Employer attitudes toward employing persons with psychiatric disability in Japan. *Journal of Vocational Rehabilitation*. 2007;26:105-113.
 25. Ozawa A, Kikuchi E. Reliability and validity of the revised attitudes toward employment of psychiatric disability scale for transport sector employers. *The Journal of Japan Academy of Health Sciences*. 2009;11: 200-213. In Japanese.
 26. Haraguchi K, Maeda M, Mei YX, Uchimura N. Stigma associated with schizophrenia: Cultural comparison of social distance in Japan and China. *Psychiatry and Clinical Neurosciences*. 2009;63:153-160.
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