Community Ment Health J (2013) 49:243–247
DOI 10.1007/s10597-012-9548-4

BRIEF REPORT

Social Capital and Stigma Toward People with Mental Illness in Tokyo, Japan

Yoshifumi Kido · Norito Kawakami · Yuki Miyamoto · Rie Chiba · Masao Tsuchiya

Received: 6 January 2011 / Accepted: 18 September 2012 / Published online: 29 September 2012

Abstract Living in a community with high social capital might lead to lower stigma towards people with mental illness. We examined the association between social capital and stigma toward people with mental illness in the community of Tokyo, Japan. A random sample of 2,000 community residents was selected and surveyed. Data from 516 respondents were analyzed. In this study, two individual-based social capital variables were significantly and negatively associated with the stigma score, while area-based social capital was not significantly associated with the stigma score. Social capital, particularly reciprocity/norm of cooperation and trust in the community, may be associated with lower stigma.

Y. Kido (✉) · Y. Miyamoto
Department of Psychiatric Nursing, Graduate School of Medicine, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan
e-mail: yoshifumi-tky@umin.ac.jp

Y. Kido
Department of Psychiatric and Mental Health Nursing, St. Luke's College of Nursing, 10-1 Akashi-cho, Chuo-ku, Tokyo 104-0044, Japan

N. Kawakami
Department of Mental Health, Graduate School of Medicine, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan

R. Chiba
School of Nursing, Jichi Medical University, 3311-159 Yakushiji, Shimotsuke-shi, Tochigi 329-0498, Japan

M. Tsuchiya
National Institute of Occupational Safety and Health, 6-21-1 Nagao, Tama-ku, Kawasaki, Kanagawa 214-8585, Japan

Keywords Social capital · Stigma of mental illness · Link's devaluation-discrimination scale

Introduction

Stigma toward people with mental illness is a "collection of negative attitudes, beliefs, thoughts, and behaviors that influence the individual, or the general public, to fear, reject, avoid, be prejudiced, and discriminate people" (Gary 2005), and is known as a serious barrier for achieving life goals in people with mental illness. Stigma interferes with mental health treatment seeking, diminishes self-esteem, and limits one's social network and employment opportunities among people with mental illness (Corrigan 2004).

Studies have suggested that stigma toward people with mental illness in the general population is affected by several factors, such as sex, age, socio-economic status, knowledge about mental illness, and contact or familiarity with persons with mental illness (Schnittker 2000; Lauber et al. 2004; Link and Cullen 1986; Corrigan et al. 2003). In addition to these individual-level factors, stigma is also affected by community characteristics, since stigma is often based on the norms of a social unit, i.e., a shared belief that a person ought to behave in a certain way at a certain time (Stafford and Scott 1986; Yang et al. 2007). Communities, neighborhoods, or organizations are believed to play an important role in the original and modified "labeling theory" (Scheff 1966; Link et al. 1987, 1989).

Social capital is a concept to describe community aspects of social networks, relations and trust. In health sciences, social capital is often defined as consisting of five characteristics: community networks, civic engagement, local civic identity, reciprocity and norms of cooperation,

and trust in the community (Putnam 1993). Levels of social capital have been shown to predict better health status (Kawachi et al. 1999), lower mortality (Kawachi et al. 1997), better mental health (Hendryx and Ahern 1997). Social capital has also been shown to better predict self-rated health in Japan (Fujisawa et al. 2005, 2007, 2009) and in East Asian countries (Yamaoka 2008). People living in a community with high social capital might have a lower level of stigma toward mental illness. For instance, in a community with high reciprocity and norms of cooperation, people might be willing to accept and help people with mental illness, since they could receive cooperation from the community to do so. People living in a community with high trust for their neighbors might also trust people with mental illness. However, social capital has been argued to be a collective characteristic, a property of individuals, or both (Poortinga 2006; Kawachi 2006). If area-based social capital is associated with stigma, as one of the community characteristics which affects stigma toward people with mental illness (Scheff 1966; Link et al. 1987, 1989; Stafford and Scott 1986; Yang et al. 2007), improving social capital by targeting a community as a whole, such as thru a community development program, could be an effective strategy to reduce stigma. If individual-based social capital, but not area-based social capital, is associated with stigma, a strategy of improving individual perceptions of social capital could be more effective. To-date, there have been no studies conducted on the association between area- and individual-based social capital and stigma toward people with mental illness.

In this study, we examined the association between area- and individual-based social capital and stigma towards people with mental illness among community residents of 20 cities/municipalities of Tokyo, Japan. Our hypotheses are two-hold: First, area-based social capital, as measured by average responses of people living in an area, is associated with stigma towards people with mental illness. Second, if area-based social capital is not associated with stigma, then individual-based social capital is associated with stigma towards people with mental illness.

Methods

The study area included 20 administrative areas of Tokyo, including 12 wards from Tokyo's 23 wards, four suburban cities, rural towns and villages, and two islands. These administrative areas were selected based on access to the voter registration list or resident register list, the presence of rehabilitation centers for people with mental illness, as well as an effort to capture areas with diverse community characteristics that might affect levels of social capital and stigma (e.g. downtown, uptown, suburb, depopulated area, and island). A random sample of 100 community residents aged 20 and above was selected from each area, based on a voter registration list or resident register list. A questionnaire was sent to the total 2,000 subjects by mail from September to November 2009. The questionnaire consisted of items and scales on social capital, stigma toward people with mental illness, subjective social status, and socio-demographic status. The study aims and procedure were explained in an invitation letter, and the subjects were asked to complete and return the questionnaire if they agreed to participate in the study.

Stigma towards people with mental illness was measured by Link's Devaluation-Discrimination Scale (Link 1987; Hasui et al. 1999; Shimotsu et al. 2006). These items measure the degree of respondents' agreement with statements describing that most people devalue current or former psychiatric patients, e.g., by perceiving them as failures, as less intelligent than other persons, and as individuals whose opinions do not need to be taken seriously. A high score on the scale indicated a strong perception of stigma.

Social capital was measured in this study by using Uphoff's definition. This defines social capital as consisting of two dimensions: structural social capital and cognitive social capital. Structural social capital consists of relationship, networks, associations, and institutional structures that link people and groups together. Cognitive social capital consists of values, norms, reciprocity, altruism, and civic responsibility. In this study, structural and cognitive social capital were derived from the Asia & Pacific Values Survey conducted by The Institute of Statistical Mathematics (Tokyo, Japan), translated and modified from the General Social Survey conducted by the National Opinions Research Center (Chicago, IL, USA) and the World Values Survey conducted by the World Values Survey Association (Stockholm, Sweden). Structural social capital was measured by an item of "membership in voluntary groups". The question asked about participation in one or more voluntary organizations. Cognitive social capital was measured by four items. A single question on trust asked, "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?" Another question concerning fairness asked, "Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?" A question concerning helpfulness asked, "Generally speaking, would you say that most of the time, people try to be helpful, or that they are mostly just looking out for themselves?" The last question concerned confidence in institutions and asked if respondents felt confidence or trust towards each of ten institutions/organizations.

Subjective social status (SSS) was measured by using the Self-Anchoring Striving Scale (Cantril 1965; Kilpatrick

and Cantril 1960). SSS is a relative social standing, reflecting an individual's perception of current circumstances, educational and socioeconomic background, and future opportunities (Singh-Manoux et al. 2003). Other demographic variables measured were as follows: sex, age, marital status, and education.

Prior to statistical analysis, we calculated area-based social capital variables. These variables were mean scores of individual-based social capital variables in each area. First, multilevel analyses were planned by using PROC MIXED to examine the association between each of the area- or individual-based social capital variables and stigma towards people with mental illness, before and after adjusting for the other covariates. Second, multivariate analysis of covariance (ANCOVA) was conducted by using PROC GLM with type III hypotheses to examine the association between an individual-based social capital variable and stigma toward people with mental illness before and after adjusting for the other covariates. All analyses were conducted using SAS version 9.1.3 for Windows. All statistical tests were two-sided, with a significance level at 5 %.

Results

Of the 2,000 questionnaires sent by mail, 27 subjects no longer lived at the listed addresses. Five subjects for whom the questionnaire was returned blank could not fill it in due to unconsciousness or dementia. The total number of responses was 554 and the average response rate was 28.2 %. In the results for sex-specific response rate, male, female, were 25.4, 30.3 %, respectively. For the results of the age-specific response rate, the ages of 20–29, 30–39, 40–49, 50–59, 60–69, 70–79, 80–89, 90–99, were 22.4, 24.2, 27.2, 24.3, 36.4, 37.2, 25.9, and 13.0 %, respectively. For the results of the area-specific response rate, uptown and downtown, suburb, depopulated area, and island were 29.3, 26.3, 29.1, and 28.7 %, respectively. Area-specific response rates did not significantly correlate with stigma. Of these 554 participants, 38 had missing data in variables relevant for the analysis. Thus data from 516 participants was used in the further analyses. Among the 516 participants, 291 were female (56.4 %), 346 were married (67.1 %), 215 finished university/college or higher-level education (41.7 %), and all participants were native speakers of Japanese. Mean age was 51.7 (standard deviation, SD, 17.1) years old. The mean total score of Link's devaluation-discrimination scale was 31.0 (SD, 5.28). The mean score of SSS was 5.4 (SD, 2.12).

Multilevel analyses using area-based social capital indicated no significant association between any of the area-based social capital variables and the stigma score of the respondents ($p > 0.05$). There was no significant difference in the mean scores of stigma scores by area ($p > 0.05$, intra-class correlation <0.01).

ANCOVA using individual social capital indicated a significant association between two cognitive social capital variables, i.e., trust in the community and reciprocity and norm of cooperation, and the stigma score ($p < 0.01$). The crude mean score of stigma towards people with mental illness was significantly greater among those who responded "people can be trusted" (trust in the community) than their counterparts (30.3 [SD, 5.4] and 32.1 [5.0], respectively), and among those who responded "people try to be helpful" (reciprocity and norms of cooperation) than their counterparts (29.7 [SD, 4.8] and 31.6 [5.4], respectively) ($p < 0.01$). The patterns were the same even after adjusting for sex and age, marital status, education, and subjective social status ($p < 0.01$). No significant differences were found in the mean stigma scores between the groups classified based on membership in voluntary groups, fairness in the community or confidence in institutions ($p > 0.05$).

Discussion

There were no significant differences in the scores of stigma towards people with mental illness among the study areas. The area-based social capital variables were not significantly associated with the stigma score. In contrast, two of the five individual-level variables of social capital, i.e., trust in the community and reciprocity and the norm of cooperation, were significantly and negatively associated with the stigma score of the participants.

The present study failed to confirm our first hypothesis that levels of stigma towards people with mental illness are different among areas and affected by area-based social capital. This suggests that stigma toward people with mental illness is less likely to be affected by social capital as a community characteristic. However, the present null finding might be attributable to the selection of the unit of an area. Cities, towns, and villages may be too large to convey the effect of social capital in the community on decreasing stigma towards people with mental illness. Further research is needed to investigate the effect of area-based social capital on stigma toward mental illness using a unit with different population sizes (such as a school district).

Our second hypothesis was supported by the finding that individual-level social capital variables were associated with decreased stigma towards people with mental illness. In particular, trust in the community and reciprocity and norm of cooperation were strongly associated with lower scores of stigma. The "unpredictable" nature of mental illness perceived by people has been related to the development of

stigma towards people with mental illness (Link and Phelan 2001), by easily leading to fear and anxiety toward people with mental illness. People living in a community with a strong sense of reciprocity and norm of cooperation might perceive such a challenge as less threatening, because of their expectations of receiving help from their neighbors. People living in a community with high trust might generalize their feelings of trust to people with mental illness and perceive them as trustworthy as a part of the community. However, participation in volunteer activities, fairness, or confidence in institution was not significantly associated with the stigma. These components of social capital may be less related to stigma towards people with mental illness. The present study suggests that an individual's perception of specific social capital components, i.e., trust and reciprocity and the norm of cooperation, is related to decreased stigma towards people with mental illness. An approach to increase an individual's perception of these social capital components, such as psycho-education, may be effective in reducing stigma. However, both of these cognitive social capital variables and lower levels of stigma may stem from a common individual's characteristic, e.g., personality, beliefs, or attitudes. A future study is needed to identify whether social capital is associated with lower stigma towards people with mental illness independent of such individual characteristics.

This study has several limitations. First, the reliability and validity of the questionnaires of social capital used here have not been confirmed. Defining social capital is a matter of ongoing, critical debate and there are various definitions and measurement issues pertaining to social capital. Further theoretical and empirical work is needed to identify social capital most relevant to health and to develop reliable and valid measures. Second, the survey areas were limited to Tokyo. This might be a reason why stigma did not vary significantly among the areas. Also, the results might be different if we had surveyed rural communities in which close ties among people in a neighborhood tends to lead to the exclusion of a foreigner or someone who was different, including people with mental illness. Further studies need to be conducted with a greater variety of community sizes and types. Third, the response rate in this study was low. The current study sample was more likely to be female and older compared to the target population. In addition, if only people who had low (or high) stigma towards people with mental illness tended to respond to the survey, the sample could have a limited variance in stigma towards people with mental illness in each area, and thus across areas. This may result in an underestimation of the effects of area-based social capital. Fourth, the definition of people with mental illness in this study was not conformable to psychiatric diagnoses. This was because people in Japan had lower awareness and knowledge of mental illnesses such as schizophrenia and depression than Western countries (Nakane et al. 2008).

Conclusion

Social capital perceived by individuals, such as trust in the community and reciprocity and norm of cooperation, was found to be negatively associated with stigma towards people with mental illness in the selected 20 cities of metropolitan Tokyo, Japan, while area-based social capital was not. If we develop effective intervention to change residents' individual-based social capital, then we might create more comfortable communities for both people with mental illness and residents.

References

Cantril, H. (1965). *The pattern of human concerns*. New Brunswick, NJ: Rutgers U. P.

Corrigan, P. (2004). How stigma interferes with mental health care. *American Psychologist, 59*, 614–625.

Corrigan, P., Markowitz, F., Watson, A., Rowan, D., & Kubiak, M. (2003). An attribution model of public discrimination towards persons with mental illness. *Journal of Health and Social Behavior, 44*(2), 162–179.

Fujisawa, Y., Hamano, T., & Koyabu, A. (2007). Chiku-tanni no social capital ga shukanteki kenkoukan ni oyobosu eikyou. *Journal of Health and Welfare Statistics, 54*, 18–23.

Fujisawa, Y., Hamano, T., Nam, E., Edirippulige, S., & Koyabu, A. (2005). Preliminary study for relationship between social capital and health status. *Niigata Iryo Fukushi Gakkaishi, 4*(2), 82–89.

Fujisawa, Y., Hamano, T., & Takegawa, S. (2009). Social capital and perceived health in Japan: An ecological and multilevel analysis. *Social Science & Medicine*, *69*(4), 500–505.

Gary, F. (2005). Stigma: Barrier to mental health care among ethnic minorities. *Issues in Mental Health Nursing, 26*(10), 979–999.

Hasui, C., Sakamoto, S., Sugiura, T., Tomoda, T., Kitamura, S., & Kitamura, T. (1999). Negative attitudes toward people with mental illness. *Archives of Psychiatric Diagnostics and Clinical Evaluation, 10*(3), 319–328.

Hendryx, M., & Ahern, M. (1997). Mental health functioning and community problems. *Journal of Community Psychology, 25*(2), 147–157.

Kawachi, I. (2006). Social capital and health: Making the connections one step at a time. *International Journal of Epidemiology, 35*(4), 989–993.

Kawachi, I., Kennedy, B., & Glass, R. (1999). Social capital and self-rated health: A contextual analysis. *American Journal of Public Health, 89*(8), 1187.

Kawachi, I., Kennedy, B., Lochner, K., & Prothrow-Stith, D. (1997). Social capital, income inequality, and mortality. *American Journal of Public Health, 87*(9), 1491.

Kilpatrick, F., & Cantril, H. (1960). Self-anchoring scaling: A measure of individuals' unique reality worlds. *Journal of Individual Psychology, 16*(2), 158–173.

Lauber, C., Nordt, C., Falcato, L., & R ssler, W. (2004). Factors influencing social distance toward people with mental illness. *Community Mental Health Journal, 40*(3), 265–274.

Link, B. (1987). Understanding labeling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *American Sociological Review, 52*(1), 96–112.

Link, B., & Cullen, F. (1986). Contact with the mentally ill and perceptions of how dangerous they are. *Journal of Health and Social Behavior, 27*(4), 289–302.

Link, B., Cullen, F., Frank, J., & Wozniak, J. (1987). The social rejection of former mental patients: Understanding why labels matter. *American Journal of Sociology, 92*(6), 1461–1500.

Link, B., Cullen, F., Struening, E., Shrout, P., & Dohrenwend, B. (1989). A modified labeling theory approach to mental disorders: An empirical assessment. *American Sociological Review, 54*(3), 400–423.

Link, B., & Phelan, J. (2001). Conceptualizing stigma. *Annual review of Sociology, 27*(1), 363–385.

Nakane, H., Nakane, Y., & Yoshioka, K. (2008). Knowledge and understanding about mental health in Japan and Australia. *Psychiatria et neurologia Japonica, 2008*(110), 378–387.

Poortinga, W. (2006). Social capital: An individual or collective resource for health? *Social Science and Medicine, 62*(2), 292–302.

Putnam, R. (1993). *Making democracy work: Civic traditions in modern*. Italy: Princeton University Press.

Scheff, T. (1966). *Being mentally ill: A sociological theory*. New York: Aldine Publishing.

Schnittker, J. (2000). Gender and reactions to psychological problems: An examination of social tolerance and perceived dangerousness. *Journal of Health and Social Behavior, 41*(2), 224–240.

Shimotsu, S., Sakamoto, S., Horikawa, N., & Sakano, Y. (2006). Reliability and validity of the Japanese version of the Link's devaluation-discrimination scale. *Japanese Journal of Psychiatric Treatment, 21*, 521–528.

Singh-Manoux, A., Adler, N., & Marmot, M. (2003). Subjective social status: Its determinants and its association with measures of ill-health in the Whitehall II study. *Social Science and Medicine, 56*(6), 1321–1333.

Stafford, M., & Scott, R. (1986). Stigma deviance and social control: Some conceptual issues. In S., Ainlay, G., Becker, & L., Coleman (Eds.), *The Dilemma of Difference* (pp. 77–91). New York: Plenum.

Yamaoka, K. (2008). Social capital and health and well-being in East Asia: A population-based study. *Social Science and Medicine, 66*(4), 885–899.

Yang, L., Kleinman, A., Link, B., Phelan, J., Lee, S., & Good, B. (2007). Culture and stigma: Adding moral experience to stigma theory. *Social Science and Medicine, 64*(7), 1524–1535.