How Japanese public health nurses manage neighbors' complaints toward mentally ill persons with problematic behaviors?

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Abstract

Despite enhancing deinstitutionalization since 2004, Japanese people do not have an adequate understanding of mental illness. As a result, they had more negative attitudes toward mentally ill persons than people of other nations. In addition, mental health care services have remained insufficient in Japan, and their readmission rate is still high. Relapse causes problematic behaviors in mentally ill persons. Neighbors often complain to public health nurses about it. However, no previous study has focused on managing neighbors' complaints toward mentally ill persons, and improving the identification of the early warning signs of relapse of them is urgently required. The purpose of this study was to explore how public health nurses managed neighbors' complaints toward mentally ill persons with problematic behaviors. In this multiple-case study, 11 Japanese public health nurses were interviewed in 2013. Based on the neighbors' complaints, the public health nurses understood the association between the problematic behaviors of the mentally ill persons and their probability of relapse, and assessed their ability to live independently in the community. The public health nurses were able to change the role of the neighbors from a complainer to a key communicator for the mentally ill persons. To prevent hospitalization of the mentally ill persons, public health nurses managed neighbors' complaints as useful clues to identify their probability of relapse, as well as to reduce neighbors' stigma toward them. The findings will help to reduce neighbors' misunderstanding of their mental illness, the readmission rate and medical costs of them.

Key words: mentally ill, community, neighbors' complaints, stigma, public health nursing, deinstitutionalization

❖ Introduction

Deinstitutionalization is international trend toward promoting community-based care for mentally ill persons (MIPs)[1]. Socially stigmatizing attitudes become barriers for MIPs to live in the community and worsen their quality of life[2]. Stigma toward the MIPs is affected by the characteristics of the community, the neighbors' level of knowledge about mental illness and familiarity with MIPs[3]. Despite enhancing deinstitutionalization since 2004[4], Japan still has the highest number of psychiatric care beds in the world[5]. Under this condition, Japanese people have minimal contact with MIPs and do

not have an adequate understanding of their disabilities[6]. As a result, they had more negative attitudes toward MIPs than people of other nations[7-9].

In addition, mental health care services have remained insufficient in Japan[10], and their readmission rate is still high[11]. Assessing the mental health conditions of MIPs using early warning signs was a key factor in reducing the readmission rate, as well as medical costs[12]. However, identifying the relapse of patients is difficult because it depends greatly on the level of recognition of the patients and their families living in the community[13].

Furthermore, relapse causes problematic behaviors in MIPs. Neighbors often complain to public health nurses (PHNs) about it[14,15]. To our knowledge, no previous study has focused on managing neighbors' complaints toward MIPs, and improving the identification of the early warning signs of relapse of MIPs is urgent-

ly required[16].

PHNs are responsible for providing direct care to MIPs, their families, and community people[17,18]. The national license system ensured quality of Japanese PHNs' practices[19]. This background will contribute to explore the tacit knowledge of a situation when managing to neighbors' complaints related to the problematic behaviors of MIPs. Therefore, the purpose of this study was to explore how PHNs manage neighbors' complaints toward MIPs with problematic behaviors in the community.

❖Methods

1 Design and method of case study

We used the case study design to analyze the empirical knowledge of PHNs acquired through their everyday practice[20,21]. We utilized Yin's multiple-case study design, which enables the collection of more robust evidence than that from a single-case study[22].

In addition to snowball sampling, potential participants were identified from the information from 2 representative Japanese public health nursing journals regarding PHNs' practices, and municipal PHNs with experience in managing to neighbors' complaints toward MIPs were recruited by phone or e-mail between January and September 2013. We first recruited 5 PHNs with experience in managing to neighbors' complaints toward patients with schizophrenia. For theoretical sampling, we asked 7 PHNs with experiences in managing to neighbors' complaints toward persons with substance abuse who had not received psychiatric treatment. Six of them agreed to participate in this study. The final total number of participants was 11.

To obtain results with high reliability and validity, data collection should be based on a case study protocol, and a case study database should be created to organize all the data. Data should be collected from multiple sources, such as interviews and documents[22]. Our data fitted these criteria, as they were based on written materials, notes from the interviews and other information. We developed a case study protocol that included interview questions and documents to support the interview data, community demographic statistics, and the mental health policy of the municipality. To make the interview questions, we conducted a semi-structured interview with 1 PHN who met the criteria of the study participant. In the open-ended questions, we focused on the PHNs' experiences of managing neighbors' complaints toward MIPs.

With the participants' consent, interviews were recorded by a researcher in a private counseling room of the municipalities, between March 10 and July 14, 2013. The average time of the interviews was 77.7 minutes (SD = 22.4). To reduce recall bias, PHNs talked about their experiences with confirming the information recorded by the researcher, which was written in chronological order.

2 Analysis

To increase the reliability and validity of the findings, the results of the cases are compared to detect common patterns, and the study participants review the draft of the case study[22]. We performed longitudinal analysis based on time-lines, and organized the information from the PHNs. After making a transcript of the digitally recorded interview, it was read carefully and summarized in 2-3 lines. The summaries were coded based on the questions: 'How did PHNs use neighbors' complaints against the MIPs with problematic behaviors?' and 'Why did PHNs choose this approach?' The codes were combined in chronological order, and the commonalities were classified as a category, and named to reflect that classification. After identifying the approaches used by the PHNs, they were used to identify commonalities between the 11 participants.

To ensure the validity of the results, we confirmed the accuracy of the participants' comments and our interpretation with each participant, as well as with an expert in qualitative research methodology, and refined the categories as appropriate.

3 Ethics

Ethical approval was obtained through the Institutional Review Board of Tokyo Medical University (No.1, 2013). All study participants signed informed consent before participating in this study.

❖Results

1 Characteristics of the study participants, neighbors, and MIPs

All PHNs were women and worked at public sectors in urban areas. Their average years of experience as a PHN was 16.9 years (SD = 6.8). Among the 11 MIPs, 5 had schizophrenia, 3 were of unknown diagnosis, and 1 each had an adjustment disorder, alcoholism, or substance abuse. The most common request of the

neighbors was to hospitalize the MIPs for psychiatric treatment (Table 1).

2 Management of neighbors' complaints towards MIPs with problematic behaviors by PHNs to support their living in the community

We identified common 6 approaches of management of neighbors' complaints toward MIPs with problematic behaviors by the PHNs.

2.1 Understanding the association between the problematic behaviors of the MIPs reported by the neighbors and their probability of relapse

Neighbors complained about the MIPs with problematic behaviors living in their community by either phone or by visiting the public health center. They were angry and embarrassed about it. These complaints were important clues to identify MIPs in the community. PHNs learned the association between the problematic behaviors of the MIPs reported by the neighbors and early warning signs of relapse.

"If the neighbors had not contacted the PHN, we would not have known about the MIP living in the community. The neighbors' complaints were meaningful information. We could identify the MIP living alone with a risk of relapse." (Case 4)

PHNs were concerned about the relationship of the neighbors and MIPs. In situations in which the neighbors and the MIPs had lived in the same community for many years and knew each other well, the neighbors often had some level of understanding of the MIP's disabilities and character. However, in cases in which the MIPs had lived in the community for only a short time, the neighbors tended to be less understanding. PHNs carefully assessed the past troubles among them.

"The neighbor said that the MIP went out to bars and joined community activities with neighbors. However, he became unable to care for himself because of his worsening condition. At first, the neighbors cleaned his room and served him meals with alcohol. Owing to poor sanitary conditions, the neighbors helped him to move from upstairs to downstairs. However, his room repeatedly became unsanitary." (Case 6)

Furthermore, PHNs considered whether the problematic behaviors of the MIPs met the criteria of self-harm or assault. PHNs predicted the outcome of neglecting the neighbors' complaints and future situations that may occur in the community, to identify the seriousness of the MIPs' mental health condition.

"She spread garbage and spilled vinegar into the neighbors' houses. If we had ignored this problem, her problematic behavior would have escalated into serious conflicts with the neighbors." (Case 3)

2.2 Recognizing the necessity of reducing neighbors' stigma against MIPs and providing correct knowledge of mental illness to neighbors

Through consultations, PHNs gradually recognized that the neighbors' complaints were related to stigma toward mental illness. The neighbors requested for the PHNs to recommend the MIPs for psychiatric hospitalization. They were unaware of the trend of deinstitutionalization of MIPs. Some neighbors believed that MIPs spent their entire life in a psychiatric hospital. The PHNs tried to identify the neighbors' level of knowledge of mental illness and the reason why they had negative perspectives of MIPs.

"The neighbor said that the patient was discarding her excreta out of her front door since June, and said 'I cannot stand it anymore! You should involuntarily hospitalize her in a psychiatric ward. If you cannot force her into a psychiatric ward, I will start legal proceedings.'" (Case 7)

PHNs have the responsibility to protect the rights of all community residents, and recognized the necessity to improve the neighbors' prejudices toward MIPs. To increase the neighbors' knowledge of mental illness, PHNs explained to them that problematic behaviors were caused by a worsening of the mental illness, that patients could not be involuntarily hospitalized in a psychiatric ward.

"I explained to the neighbors that there were several kinds of rules for the admission of MIPs to a psychiatric ward. The MIP and his/her family must agree to the hospitalization. Furthermore, the primary doctor has to recognize the need of psychiatric admission." (Case 10)

Table 1.   Characteristics of the study participants, the mentally ill persons and their neighbors.

PHNs				MIPs						Neighbors	
Case	Sex	Career length: PHN (yr)	Urban / Rural	Residents per public health nurse	Sex	Age (yr)	Psychiatric diagnosis	Psychiatric treatment	Problematic behavior	Sex	Requests to the PHNs regarding the MIPs
1	Female	10	Urban	70,000	Female	48	Schizophrenia	Discontinued	Loud voice	Male & Female	Warning the MIP about her problematic behaviors
2	Female	16	Urban	13,000	Male	53	Unknown	Untreated	Verbal abuse	Female	Hospitalizing the MIP for psychiatric treatment
3	Female	18	Urban	26,000	Female	73	Unknown	Untreated	Throwing garbage and vinegar into neighbors' houses	Female	Warning the MIP about her problematic behaviors
4	Female	23	Urban	720,000	Female	46	Schizophrenia	Discontinued	Setting fire to a neighbor's house	Male & Female	Hospitalizing the MIP for psychiatric treatment
5	Female	17	Urban	15,000	Female	60	Adjustment disorder	Untreated	Verbal abuse, throwing garbage into others' houses	Female	Moving the MIP out of the community
6	Female	22	Urban	15,000	Male	70	Alcoholism	Untreated	Incontinence, unsanitary living conditions	Male & Female	Hospitalizing the MIP for psychiatric treatment
7	Female	8	Urban	14,000	Female	68	Unknown	Untreated	Discarding her excreta out of her front door	Male & Female	Hospitalizing the MIP for psychiatric treatment
8	Female	32	Urban	16,000	Male	64	Schizophrenia	Discontinued	Delusional remarks, loud voice, playing golf in the corridor of his apartment	Male & Female	Hospitalizing the MIP for psychiatric treatment
9	Female	13	Urban	14,000	Female	65	Schizophrenia	Discontinued	Trimming trees in neighbors' gardens, throwing stones toward neighbors' cars	Female	Hospitalizing the MIP for psychiatric treatment
10	Female	12	Urban	13,000	Female	71	Schizophrenia	Under treatment	Throwing garbage into neighbors' houses	Female	Hospitalizing the MIP for psychiatric treatment
11	Female	15	Urban	15,000	Male	44	Substance abuse	Under treatment	Loud voice, verbal abuse, chasing children with a knife	Female	Hospitalizing the MIP for psychiatric treatment

MIPs: mentally ill persons
PHNs: public health nurses

2.3 Collecting information about the MIPs and assessing their ability to live independently in the community

PHNs have no evidence of the MIPs' problematic behaviors other than the neighbors' complaints. The PHNs tried to collect information on the MIPs, such as past consultation records and the application form for psychiatric medical aid, as evidence of his/her mental illness, and the MIP's residence certificate as evidence of his/her residency in the community.

"According to the past consultation records, the police contacted the PHN regarding the MIP's problematic behaviors. His parents also consulted the PHN about his problematic behaviors in 2002." (Case 11)

In a few cases, there was no evidence of mental illness other than the neighbors' complaints. Before contacting the individual, PHNs tried to collect information about their consultation history from the relevant departments, such as the police and welfare office.

"The policeman told me that the neighbors often called the police about the trouble between the MIP and them, and that the MIP had a history of psychiatric treatment." (Case 2)

Through collecting information on the MIPs, PHNs tried to find evidence supporting the neighbors' complaints. To prevent hospitalization, PHNs also collected information about the MIPs' mental health condition and treatment status, and comprehensively assessed whether they could live independently in the community or not.

"She discontinued her psychiatric treatment, and her condition got worse. However, she continued living in the community." (Case 9)

2.4 Identifying key family members for the care of the MIPs and assessing their ability of problem solving

Through collecting information from relevant professionals, PHNs confirmed that the presence of key family members of the MIPs. This is because a large amount of family support is necessary to enable MIPs to continue living in the community. Among the 11 MIPs, 3 did not have any living family members.

Therefore, the PHNs of 8 MIPs tried to clarify their family relationships. Family members of 4 MIPs did not want to become involved with the MIPs. The MIPs had repeatedly caused problems with their neighbors over the years, and their families had to support them, resulting in worsened family relations.

"He got into enormous debts and was persecuted by an insistent creditor. His wife committed suicide after suffering from his debts. His son and daughter have little contact with him. Although his son did not respond to our calls, his daughter understood his situation and tried to meet with him." (Case 6)

In addition, health conditions of the family members and their abilities of problem solving varied greatly. Some parents of MIPs had declined cognitive function and lived in facilities for the elderly. They were unable to support the MIPs. PHNs encountered a difficulty in obtaining family support.

"His father could not understand my explanation about his son's worsening condition, because of his hearing impairment. The father could not support his son due to old age." (Case 8)

2.5 Building trustful relationships with the MIPs and their family without threatening their safety

As PHNs have the responsibility to support MIPs for long periods of time, building trustful relationships with them is important for providing adequate care. However, it is unknown whether the MIPs actually want to receive professional help. To be able to meet the MIPs without threatening their safety, PHNs would often write a letter to the MIPs stating their concern.

"I understood that he required long-term support. If I visited him without an appointment, he would appear scared. That is why I tried to send him a letter first." (Case 11)

The MIPs and their families were uncomfortable with PHNs who suddenly visited them. PHNs understood their negative attitudes. If they wanted to reschedule the appointment, PHNs accepted their requests and carefully approached them to build a trustful relationship with them and to collect information about them.

"I visited her home and met her father. However, he gave me a pointblank refusal. He said to me 'What is the purpose of your visit?' I explained to him 'I want to talk to you about your daughter's health.' However, I was an unwanted guest for him. He wanted to end my home visit as soon as possible." (Case 1)

2.6 Consulting with mental health care professionals regarding how to support the MIPs and sharing information with neighbors to gain their support

Based on the collected information, PHNs assessed the conditions of the MIPs and whether they were capable of living independently in the community. PHNs discussed with the MIPs' primary doctor, psychiatrists, and related staffs about how to assess their conditions and to support their life in the community, as public servants. The continuation of medical treatment was a key to reduce the problematic behaviors of the MIPs. Of the 11 MIPs, only 2 continued their psychiatric treatment. To prevent hospitalization of the MIPs and to enable them to continue living in the community, PHNs discussed about the necessity of psychiatric treatment with the mental health care professionals.

"I received advice regarding my assessment from the contract psychiatrist. She said that the MIP who is at highest risk of becoming the target of neighbors are those with schizophrenia, because of her hallucinations and delusions of poisoning, and she is in the most need of psychiatric treatment." (Case 5)

As the health conditions of the MIPs changed, PHNs had many discussions with professionals regarding their care. When MIPs did not require acute psychiatric care, the PHNs and relevant professionals monitored their health conditions.

In addition, PHNs thought that neighbors would continue to complain about the MIPs if they could not see an improvement in the care for the MIPs. Furthermore, PHNs thought that if neighbors complained about the MIPs again, it would give them another chance to understand the current condition of the MIPs. PHNs tried to share the information with the neighbors, to receive their support. The role of the neighbors changed from a complainer to a key communicator for the MIPs within the community.

"We routinely visited the home of the MIP because a neighbor repeatedly complained about the problematic behaviors of the MIP. I explained to the neighbor that we visit the MIP's home routinely, and that we also shared the information she gave us with the police. I appreciated receiving the neighbor's complaints because we could not monitor the MIP as constantly as she could." (Case 7)

3 Association between the purposes of the PHNs in caring for the MIPs and in managing neighbors' complaints toward MIPs with problematic behaviors

The 6 approaches which were used by PHNs for management of neighbors' complaints toward MIPs with problematic behaviors are shown in Fig. 1.

The approach used by PHNs to understand the association between the problematic behaviors of the MIPs reported by the neighbors and their probability of relapse was unknown to the neighbors. The PHNs recognized the importance of improving neighbors' stigma against MIPs, and of providing them with the correct knowledge of mental illness. This approach contributed to reduce the stigmatized attitude of the neighbors toward MIPs and to improve it. The vertical axis represents the purpose of managing to the neighbors' complaints about the PHNs' activities.

In parallel, the PHNs tried to detect the MIPs who required care at an early stage, and to gather evidence to confirm the relapse of mental illness based on neighbors' complaints. In addition, to prevent the hospitalization of MIPs, PHNs discussed with mental health care professionals about the care they required. The horizontal axis shows the purpose of the care for the MIPs in the use of each approach. Each approach contributed to detect of early warning signs of relapse, to prevent of the hospitalization of the MIPs, and to support their stable life in the community.

The diagonal line shows the boundary of care by PHNs for MIPs and their neighbors. The first and last categories were across this boundary because they were associated with care for both the neighbors and MIPs.

❖Discussion

To the best of our knowledge, this is the first study to explore how PHNs managed neighbors' complaints toward MIPs with problematic behaviors. The principal finding of this study was that PHNs managed neigh-

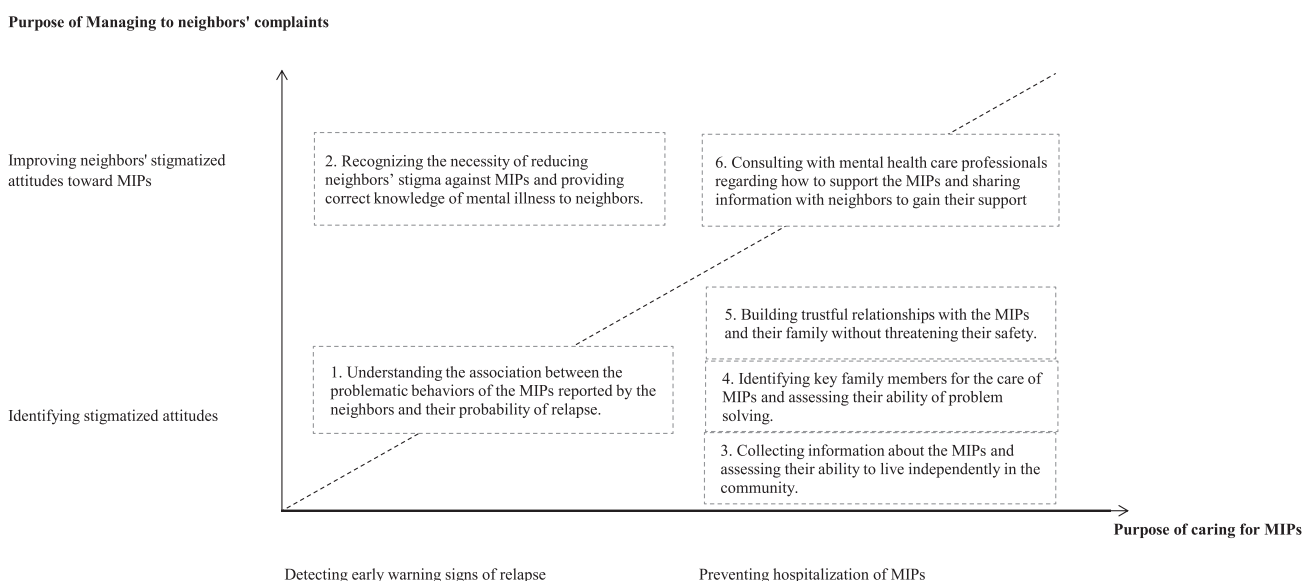**Purpose of Managing to neighbors' complaints**

Figure 1   Management of neighbors' complaints towards MIPs with problematic behaviors by PHNs to support their living in the community.

MIPs: mentally ill persons
PHNs: public health nurses

bors' complaints toward MIPs as useful clues to identify the early warning signs of relapse and to reduce neighbors' stigmatized attitudes toward them. In addition, regardless of the varying levels of experience of the PHNs and the different nature of their situations, all PHNs used the same approaches. This is a new effective and efficient approaches of detecting the MIPs who need help at an early stage and for reducing the stigma towards MIPs. Our finding will also contribute to prevent hospitalization for the MIPs, to reduce their length of hospital stay, as well as medical cost. Furthermore, PHNs in charge of mental health care have high risk of burnout because of facing the dilemma between supporting MIPs' life and keeping community safety[23]. Managing neighbors' complaints toward MIPs will be the key to protecting MIPs' well-being and to keeping public good. Our finding will contribute to prevent burnout and turnover among PHNs.

We also found that the PHNs assessed the information of MIPs, identified key family members to care for the MIPs, and assessed their ability of problem solving. Our findings support a previous study which showed that PHNs utilized multiple sources of data for identifying an individual's health condition[18]. Additionally, in Japan, many families live with MIPs and play an important role in caring for them[24,13]. Previous studies showed that the level of caregiver burden is related to the severity of illness of the MIPs[25]. Our results sug-

gested that the importance to develop more social resources for MIPs to keep a stable life in the community and to reduce family care burden.

Furthermore, the PHNs could change the role of the neighbors from a complainer to a key communicator for them. Previous study focused on professional care and did not mention about the neighbors' voices[26]. MIPs faced 2 main problems; one was managing their disorder and symptoms, and the other was facing misinterpretation of their mental illness by the public, resulting in stigma[27]. Our present findings should contribute to improving these 2 major problems at once, to develop a socially inclusive community based on managing the neighbors' complaints by PHNs in their daily practices. The results should also help novice PHNs to understand the role of PHNs who must protect the rights of people, whether or not they are mentally ill.

❖Limitations

This study has 2 main limitations. First, the results represent the experiences of PHNs in Japan. The generalization of these results to other countries would be difficult. Second, the researcher could not access internal documents of the municipal public health centers for reasons of confidentiality. In the future, nation-wide studies should be performed to confirm the usefulness of neighbors' voices to identify early signs of relapse

and to develop a socially inclusive community. Developing an educational program for PHNs to effectively manage neighbors' complaints for the care of MIPs is also required.

❖Conclusions

Despite these limitations, this is the first study to explore how PHNs managed neighbors' complaint toward MIPs with problematic behaviors in the community. Our findings will be the key to promoting the deinstitutionalization of and to reduce public stigma toward MIPs.

❖Acknowledgements

❖References

1) Davis L, Fulginiti A, Kriegel L & Brekke JS.: Deinstitutionalization? Where Have All the People Gone? Current Psychiatry Reports 14(3), 259-269(2012). doi: 10.1007/s11920-012-0271-1.

2) Pescosolido BA, Medina TR, Martin JK & Long JS.: The "Backbone" of Stigma: Identifying the Global Core of Public Prejudice Associated With Mental Illness. American Journal of Public Health 103(5), 853-860(2013). doi: 10.2105/ajph.2012.301147.

3) Jenkins JH, Carpenter-Song EA.: Awareness of Stigma Among Persons With Schizophrenia Marking the Contexts of Lived Experience. Journal of Nervous and Mental Disease 197(7), 520-529(2009). doi: 10.1097/NMD.0b013e3181aad5e9.

4) Ministry of Health, Labour and Welfare.: Seishin hoken iryou fukusi no kaikaku bijyon (2004): http://www.mhlw.go.jp/topics/2004/09/dl/tp0902-1a.pdf (accessed 4 November 2015) (in Japanese)

5) Organisation for Economic Co-operation and Development.: Psychiatric care beds, per 1000 population, Health care resources. OECD Health Statistics 2014 - Frequently Requested Data (2014): http://www.oecd.org/els/health-systems/oecd-health-statistics-2014-frequently-requested-data.htm, (accessed 4 November 2015)

6) Boyd JE, Katz EP, Link BG & Phelan JC.: The relationship of multiple aspects of stigma and personal contact with someone hospitalized for mental illness, in a nationally representative sample. Social Psychiatry and Psychiatric Epidemiology 45(11), 1063-1070 (2010). doi: 10.1007/s00127-009-0147-9.

7) 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 63(2), 153-160(2009). doi: 10.1111/j.1440-1819.2009.01922.x.

8) Ando S, Yamaguchi S, Aoki Y, Thornicroft G.: Review of mental-health-related stigma in Japan. Psychiatry and Clinical Neurosciences 67(7), 471-482 (2013). doi: 10.1111/pcn.12086.

9) Richards M, Hori H, Sartorius N, Kunugi H.: Cross-cultural comparisons of attitudes toward schizophrenia amongst the general population and physicians: A series of web-based surveys in Japan and the United States. Psychiatry Research 215(2), 300-307 (2014). doi: 10.1016/j.psychres.2013.12.012.

10) Nakanishi M, Niimura J, Tanoue M, Yamamura M, Hirata T & Asukai N.: Association between length of hospital stay and implementation of discharge planning in acute psychiatric inpatients in Japan. Interational Journal of Mental Health System 9, 23(2015). doi: 10.1186/s13033-015-0015-9.

11) Uchiyama N, Ikeno T, Kurihara T.: Predictive Factors of Readmission in Patients with Schizophrenia : A nationwide retrospective cohort study. Clinical Psychiatry 54(12), 1201-1207 (2012).

12) Koichi R & Miyamoto Y.: Reliability and validity of the Japanese semistructured interview version of the Early Signs Scale (ESS-JI) for outpatients with schizophrenia (study 1). Internaltional Journal of Mental Health Nursing 20(2), 144-51 (2011). doi: 10.1111/j.1447-0349.2010.00702.x.

13) Kayama M, Kido Y, Setoya N, Tsunoda A, Matsunaga A, Kikkawa T, Fukuda T, Noguchi M, Mishina K, Nishio M, Ito J.: Community outreach for patients who have difficulties in maintaining contact with mental health services: longitudinal retrospective study of the Japanese outreach model project. BMC Psychiatry 14, 311 (2014). doi: 10.1186/s12888-014-0311-y.

14) Atsugi Public Health and Welfare Office. Kinrin Kujyo ni taisuru seishin hoken soudan taiou manu-

al. Atsugi Public Health and Welfare Office, Atugi City, Kanagawa. (2008). (in Japanese)

15) Sagamihara Public Health Center. Seishin hoken fukushi Soudan ni okeru kinrin kujyo taiou no guideline. Sagamihara Public Health Center, Sagamihara City, Kanagawa. (2010). (in Japanese)

16) Koichi R, Miyamoto Y, Akiyama M & Takamura S.: Awareness of early warning signs and help-seeking behaviours among patients with schizophrenia who utilize social rehabilitation facilities in Japan. Journal of Psychiatric and Mental Health Nursing 16(8), 694-702 (2009). doi: 10.1111/j.1365-2850.2009.01450.x.

17) Yoshioka-Maeda K, Taguchi A, Murashima S, Asahara K, Anzai Y, Arimoto A, Miyazaki T, Sato N, Sakai T, Oomori J, Magilvy JK.: Function and practice of public health nursing in Japan: a trial to develop the Japanese Purpose-Focused Public Health Nursing Model. Journal of Nursing Management 14(6), 483-489 (2006).

18) Swider SM, Krothe J, Reyes D, Cravetz M: The Quad Council Practice Competencies for Public Health Nursing. Public Health Nursing 30(6), 519-536 (2013). doi: 10.1111/phn.12090.

19) Japanese Nursing Association: Nursing in Japan (2011): http://www.nurse.or.jp/jna/english/pdf/nursing-in-japan2011.pdf (accessed 4 November 2015)

20) Kothari A, Rudman D, Dobbins M, Rouse M, Sibbald S & Edwards N.: The use of tacit and explicit knowledge in public health: a qualitative study. Implementation Science 7, 12 (2012). doi: 10.1186/1748-5908-7-20.

21) Creswell JW.: Five qualitative approaches to inquiry (3rd edition). Sage Publications, Thousand Oaks, CA. (2013)

22) Yin RK.: Case Study Research: design and methods (5th edition). Sage Publications, Thousand Oaks, CA. (2014)

23) Imai H, Nakano H, Nakagi Y, Niwata S, Sugioka Y, Itoh T, Yoshida T.: Prevalence of burnout among public health nurses in charge of mental health services and emergency care systems in Japan. Environmental Health and Preventive Medicine 11, 286-291 (2006).

24) Sono T, Oshima I, Ito J.: Family needs and related factors in caring for a family member with mental illness: adopting assertive community treatment in Japan where family caregivers play a large role in community care. Psychiatry and Clinical Neurosciences 62(5), 584-590 (2008). doi: 10.1111/j.1440-1819.2008.01852.x.

25) Cheng JF, Huang XY, Hsu YS, Su CH.: Influencing factors of community mental health nurses caring for people with schizophrenia in Taiwan. Journal of Psychiatric and Mental Health Nursing 19(4), 319-26 (2012). doi: 10.1111/j.1365-2850.2011.01795.x.

26) Zafar SN, Syed R, Tehseen S, Gowani SA, Waqar S, Zubair A, Yousaf W, Zubairi AJ, Naqvi H.: Perceptions about the cause of schizophrenia and the subsequent help seeking behavior in a Pakistani population – results of a cross-sectional survey. BMC Psychiatry 8, 56. (2008) doi: 10.1186/1471-244X-8-56.

27) Rusch N, Angermeyer MC & Corrigan PW.: Mental illness stigma: Concepts, consequences, and initiatives to reduce stigma. European Psychiatry 20(8), 529-539(2005). doi: 10.1016/j.eurpsy.2005.04.004.