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A Clarification of the characteristics of the mentally disabled persons who needed to be psychiatrically hospitalized as a trigger of the neighbors' claims: a cross-sectional survey

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Abstract

To clarify the characteristics of the mentally disabled persons who needed to be psychiatrically hospitalized in the wake of neighbors' complaints. We analyzed 1593 mental health consultation records at a community health center that were written from April 2007 to July 2012 in this cross-sectional survey. We performed a chi-squared automatic interaction detection technique (CHAID) to clarify the characteristics of the mentally disabled who are most likely to admit to the psychiatric facility. We found that 81 had information on neighbors' claims about the behavior of mentally disabled, 26 were psychiatrically hospitalized. The CHAID showed that the mentally disabled persons who (1) had serious influences on his/her life and body when the present conditions were neglected or (2) were unable to sustain an independent life was admitted to the psychiatric facility. If the mentally disabled person met (1), 83.3% were admitted to the hospital. If the mentally disabled did not meet (1) but met (2), 60.0% were hospitalized. Among the neighbors' complaints, the persons who had a serious influence on his or her life and body when the present conditions were neglected or were unable to sustain an independent life had needs of psychiatric interventions. Our findings may help public health nurses effectively identify the mentally disabled persons who need urgently support to go to the hospital and psychiatric treatment by focusing on his/her life skill.

Key words: neighbors' claims, mentally disabled, stigma, deinstitutionalization, community, public health nursing, support, normalization

❖Introduction

Health policies for mentally disabled promote deinstitutionalization in the world. In Japan, the mental health care system would be changing hospital-based to community-based[1)]. However, previous study showed that mentally disabled persons (MDPs) readmitted to the psychiatric ward frequently within the first 2 years after discharge. Because of promoting normalization and reducing medical cost, decreasing the frequency of readmission in the psychiatric facility is public health priority[2)]. The MDPs needs to keep stable life in their community by using social resources.

Despite an increasing number of the MDPs who lives in the community, the public still have stigma and discrimination. Some community members do not want the MDPs to live in their community.[3)] They also have prejudice and their negative attitudes which based on the level of behavioral problem of the MDPs[4)].

Recently, the community people complain about the behaviors of MDPs in Japan. Public health nurses (PHNs) required response of this claims[5)]. Two Japanese public health centers formulated guidelines on how to response the community members' claims about MDPs[6,7)]. The qualitative studies clarified the skills of PHNs for supporting the MDPs who interrupted their

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treatment[8] and his/her family who became the target of residents' complaints[9]. However, previous studies did not show the characteristics of the MDPs who needed to be psychiatrically hospitalized. Furthermore, PHNs supported for the MDPs who need to go to the psychiatric facility[10]. This practical approach is based on the tacit knowledge of PHNs.

The purpose of this study was to clarify the characteristics of the MDPs who needed to be psychiatrically hospitalized in the wake of neighbors' complaints.

❖Methods

1 Design and sample

In this cross-sectional survey, we checked all of the mental health consultation records, and examined the description of neighbors' complaints about the behavior of MDPs. We confirmed that 1593 mental health consultation records at one community health center in Tokyo which were written from April 1st 2007 to July 31 2012. Of those records, we found that 81 had information on claims from community members about the behavior of MDPs[10].

2 Measures

The characteristics of the MDPs measured gender, age, welfare benefit, living arrangement, living with family, existence of a key family person, and whether the family understood the mental disorder and cooperated to go to the hospital with the MDPs or not[6,7,10]. We also included the history of the MDPs: having a history of consultation with a community health center, the resident complained about his/her behavior, interruption of medical treatment, article 24 report history of Act on Mental Health and Welfare for the Mentally Disabled (i.e., someone called a policeman about trouble with a MDPs), involuntary hospitalization for medical care and protection, and diagnosis of schizophrenia.

We also examined whether the MDPs understood the mental disorder or not, having a primary doctor, refusing to take medicine, inability to sustain an independent life, having a serious influence on his/her life and body when the present condition was neglected, having a fear of other damaged. Furthermore, we checked the problem behavior of the MDPs that was reported by the neighbors[10].

From the records, we analyzed whether the MDPs was psychiatrically hospitalized or not. We collected the data associated with admission and discharge: the kind of hospitalization, diagnosis, having a conference for preparing discharge, utilization of social resources, continuing a routine visit of the primary doctor, capability of taking medicine, continuing support by the PHNs, clinical outcome of one yr after.

3 Statistical Analysis

By using Microsoft Office Excel 2010, we inputted a value of 1 for each variable which have the information in the records. We inputted a value of 0 in case of there was no information[10].

To clarify the characteristics of the MDPs who needed to be psychiatrically hospitalized, we divided the MDPs into two groups depending on whether the MDPs were admitted to the psychiatric ward or not: the 'Hospitalized group' and the 'No-hospitalized group.'

Data were analyzed by using the chi-squared test, Fisher's exact test, and t-test. We performed chi-squared automatic interaction detection (CHAID) technique analysis to examine the characteristics of the MDPs who needed to be psychiatrically hospitalized. The CHAID technique is a nonparametric analysis to determine the relative independent variables which explain the most variance in the dependent variable by using X^2 values[11]. The CHAID dendogram shows the hierarchical style, and the independent variable at highest level of tree means having the relative importance for explaining the dependent variable. This is visually understandable criterion and predictor variables for the practitioners[12]. In this study, tree depth was limited to three levels, no group smaller than 20 was split, no group smaller than 10 was formed.

All statistical analyses were performed by using PASW Statistics 18 and Decision Tree 21. Level of significance was used at $p<0.05$.

4 Ethics

Before beginning this research, the researchers explained the aims and methods of this study which was based on the Helsinki Declaration to the head of the community health center, the managers and all staffs both orally and in writing: participation was voluntary, the information would not be used for any purpose other than this study, and their privacy would be protected. The head of the community health center and all staffs approved the conduction of this study. All materials related to this study were kept in strict confidence and anonymous.

❖Results

The characteristics of the MDPs are summarized in Table 1 Among the 81 records, 26 were psychiatrically hospitalized (32.1%), 55 were not hospitalized (67.9%).

In the 'Hospitalized group,' fifteen were male, the average of the age of them was 55.0 (SD=15.9), receiving welfare benefits was 48.0%. In the 'No-hospitalized group,' nineteen were male, the average of the age of them was 57.7 (SD=13.0), receiving welfare benefits was 26.4%. There were no significant differences in these parameters between the Hospitalized and No-hospitalized group.

There were significant differences in the percentage of MDPs whose family cooperated to go to the hospital with the individual (p=0.004), percentage with a history of article 24 report history of Act on Mental Health and Welfare for the Mentally Disabled (p=0.004), percentage of involuntary hospitalization for medical care and protection (p=0.014), percentage of refusing to take medicine (p<0.001), percentage of inability to sustain an independent life (p<0.001), and percentage in having a serious influence on his/her life and body when the present condition was neglected (p<0.001), between the Hospitalized and No-hospitalized groups.

Table 2 outlines the problem behavior of MDPs that was reported by the neighbors. There were no significant differences in these parameters between the Hospitalized and No-hospitalized groups.

The CHAID was performed to examine the characteristics of the MDPs who needed to be psychiatrically hospitalized. All independent variables were used to analysis. Figure 1 shows the relative importance of significant independent variables in determining psychiatric admission. The CHAID dendogram showed that the MDPs who (1) had serious influences on his or her life and body when the present conditions were neglected or (2) were unable to sustain an independent life were

Table 1 Characteristics of the MDPs

n=81

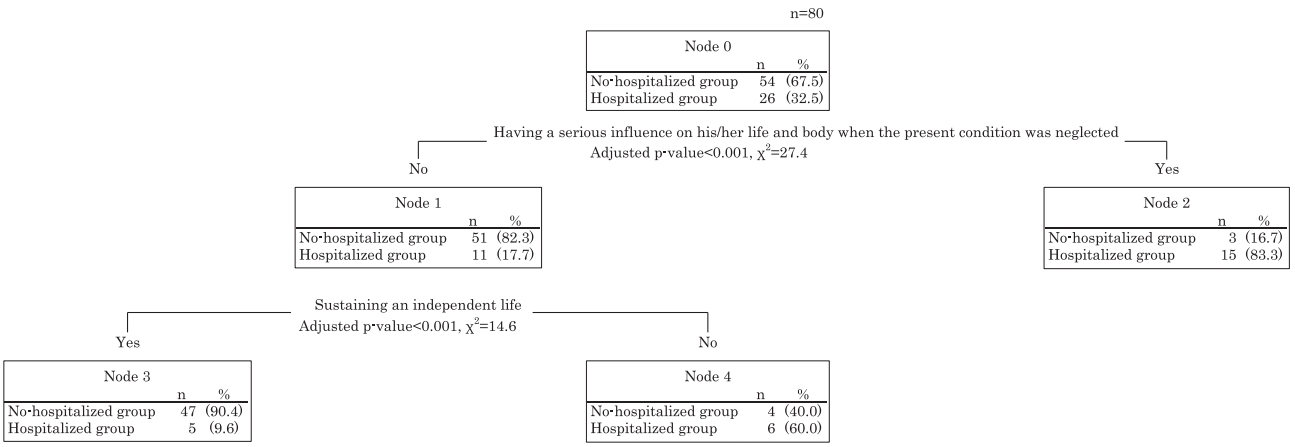
		No-hospitalized group (n=55)		Hospitalized group (n=26)		p-value
		n	%	n	%	
Gender	Male	19	(34.5)	15	(57.7)	0.058
Age	yrs (SD)	57.7	(13.0)	55.0	(15.9)	0.200
Welfare benefit	Received	14	(26.4)	12	(48.0)	0.074
Living arrangement	Apartment	31	(59.3)	18	(69.2)	0.464
	Detached house	22	(40.7)	8	(30.8)	
Living with family	Yes	22	(42.3)	7	(26.9)	0.221
Existence of family key person	Yes	26	(74.3)	17	(81.0)	0.682
Family understood the mental disorder	Yes	21	(84.0)	14	(87.5)	1.000
Family cooperation to go to the hospital with the individual	Yes	7	(13.7)	11	(45.8)	0.004
History of consultation with a community health center	Yes	27	(50.9)	16	(61.5)	0.346
History of resident who complained about his/her behavior	Yes	19	(34.5)	10	(38.5)	0.806
History of medical treatment interruption	Yes	14	(42.4)	11	(50.0)	0.595
History of article 24 report history of Act on Mental Health and Welfare for the Mentally Disabled	Yes	2	(5.4)	8	(36.4)	0.004
History of involuntary hospitalization for medical care and protection	Yes	5	(14.3)	10	(45.5)	0.014
History of diagnosis as schizophrenia	Yes	16	(44.4)	14	(66.7)	0.169
The MDPs understood the mental disorder	Yes	10	(21.3)	4	(16.7)	0.759
Having a primary doctor	Yes	35	(79.5)	18	(72.0)	0.557
Refusing to take medicine	Yes	6	(17.6)	13	(68.4)	<0.001
Inability to sustain an independent life	Yes	5	(9.4)	16	(64.0)	<0.001
Having a serious influence on his/her life and body when the present condition was neglected	Yes	3	(5.5)	15	(57.7)	<0.001
Having a fear of other damaged	Yes	33	(60.0)	20	(76.9)	0.210

MDPs: mentaly disabled person
Numbers are mean ±SD (range) or n (%).

Table 2 Outline of the problem behavior of MDPs that was mentioned by the neighbors n=81

	No-hospitalized group (n=55)		Hospitalized group (n=26)		p-value
	n	%	n	%	
Noise	25	(45.6)	10	(38.5)	0.635
Delusion remarks	24	(43.6)	16	(61.5)	0.158
Verbal abuse	23	(41.8)	6	(23.1)	0.137
Property destruction	9	(16.3)	6	(23.1)	0.544
Keep watch of the neighbors' movement	7	(12.7)	6	(23.1)	0.331
Collect miscellaneous debris	7	(12.7)	3	(11.5)	0.999
House-invasion	7	(12.7)	2	(7.7)	0.711
Throw things	6	(10.9)	5	(19.2)	0.318
Violence	5	(9.1)	5	(19.2)	0.278

MDPs: mentaly disabled person
Numbers are n (%).



MDPs: mentaly disabled person

Figure 1 Dendogram of the characteristic of the MDPs who needed to be psychiatrically hospitalized

admitted to the psychiatric facility. If the MDPs met (1), 83.3% were hospitalization. If the MDPs did not meet (1) but met (2), 60.0% were hospitalized.

Table 3 shows the characteristics of the Hospitalized group related to admission and discharge. Among the 26 records, thirteen were hospitalized for medical care and protection. Eighteen were diagnosed with schizophrenia. Having a conference for preparing discharge were 42.3%. After discharging the psychiatric ward, 11 were used social resources and were supported by the PHN. One yr after waking the neighbor's complaint, 34.6% were living in their home, 23.1% were psychiatrically hospitalized, and 42.3% were unknown.

❖Discussion

This study was conducted to clarify the characteristics of the MDPs who needed to be psychiatrically hospitalized in the wake of neighbors' complaints. We found that the MDPs who had serious influences on his/her life and body when the present conditions were neglected or were unable to sustain an independent life have needed of psychiatric interventions. To our knowledge, this is the first study that systematically investigated the characteristics of the MDPs who needed to be psychiatrically hospitalized on the basis of the neighbors' complaints. Our findings may help public health nurses effectively identify the MDPs who needs urgently support to go to the hospital and psychiatric treatment.

In our study, there were significant differences in

Table 3 Characteristics of the Hospitalized group related to admission and discharge n=26

		n	%
Kind of hospitalization	Involuntary hospitalization for medical care and protection	13	(50.0)
	Involuntary hospitalization	9	(34.6)
	Voluntary hospitalization	3	(11.5)
	Unknown	1	(3.9)
Diagnosis	Schizophrenia	18	(69.2)
	Bipolar disorder	2	(7.7)
	Dementia	2	(7.7)
	Others	2	(7.7)
	Unknown	2	(7.7)
Having a conference for preparing discharge	Yes	11	(42.3)
Utilization of social resources	Yes	11	(42.3)
(Details)	Home-visit nursing	8	(30.8)
	Nursing-care helper	2	(7.7)
	Day care	3	(11.5)
	Mentally disabled workplace	3	(11.5)
Continuing a routine visit of the primary doctor	Yes	8	(30.8)
Capability of taking medicine	Yes	13	(50.0)
Continuing support by the PHNs	Yes	11	(42.3)
Clinical outcome of one yr after	Lived in his/her home	9	(34.6)
	Hospitalized	6	(23.1)
	Unknown	11	(42.3)

Numbers are n (%).

the percentage of MDPs whose family cooperated to go to the hospital with the individual. This finding was the same as those in previous studies which showed that importance of family support when the MDPs tried to visit a psychiatrist[8-9,13]. In addition, we found that there were significant differences in the percentage with a history of article 24 report history of Act on Mental Health and Welfare for the Mentally Disabled, hospitalization for medical care and protection, percentage refusing to take medicine between the Hospitalized and No-hospitalized groups. This finding indicates that the MDPs who was the target of the neighbors' complaints had risk of worsening his/her condition and difficulty of controlling it by him/her. Using telephone consultation and home visiting service, continuity of care for the MDPs will prevent readmission[14-15]. Neighbors' claims are helpful for PHN to identify the MDPs who needs psychiatric interventions[10]. PHNs require monitoring the MDPs who live in the community and target of the neighbors' complaints to prevent their worsening condition and readmission. Through this practice, PHNs would easily identify the MDPs who need help in their community an early stage and will keep not only his/her quality of life but also the community members.

The CHAID dendogram showed that the MDPs who had serious influences on his/her life and body when the present condition was neglected or was unable to sustain an independent life had needs of psychiatric interventions. This finding means that the difficulty of maintaining stable life in the community is a clue for identifying the MDPs who needs to be psychiatrically hospitalized. Based on the future forecast of the MDPs's life, PHNs assess the condition and the ability of the MDPs who lives in the community to prevent his/her ruptured life[8]. The mentally ill can reduce the ability of self-care and functioning[16]. To encouraging independent living and to enhance quality of life of MDPs, PHNs need to focus on his/her life skill. This approach would support and maintain the MDPs own well-being in the community.

We found that half of hospitalized group were admitted to a hospital for medical care and protection. Having a conference for preparing discharge, used social resources and PHNs supported him/her were 42.3%. This result means that the condition of MDPs become worse and did not show his/her consent for vol-

untary hospitalization. Previous study indicated that the MDPs readmitted to the psychiatric ward frequently within the first 2 years after discharge[2]. Recently, early stage preparing for discharge was enhancing quality of life of the MDPs[17]. To promote recovery of the equilibrium of the MDPs, PHNs need to think about how to design a schedule his/her day and dosing plan, how to recognize the early warning signs and seek help, how to keep outpatient visit[18-19]. To stop early psychiatric readmission, PHNs have responsibility to support the MDPs who was psychiatrically hospitalized in the wake of neighbors' complaints. After hospitalization, PHNs would have a meeting immediately with hospital staffs and the MDPs to talk about their life after discharge.

In present study, there are three limitations. First, this survey was conducted in only one public health center. The generalization of the result is limited. Second, because of the cross-sectional survey, our result could not show the cause-effect relationship. Third, we analyzed the records, we could not identify the actual condition of the MDPs. Despite these limitations, we revealed the characteristics of the MDPs who needed to be psychiatrically hospitalized on the basis of the neighbor's complaint. The results suggest that PHNs could effectively identify the MDPs who needs urgently support to go to the hospital and psychiatric treatment by focusing on his/her life skill. In the future, a nation-wide survey is required to clarify the picture of the neighbors' complaints about the behavior of MDPs, and to develop a new system of preventing readmission.

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