

## Regular Article

## Causes of homelessness prevalence: Relationship between homelessness and disability

Akihiro Nishio, MD, PhD,<sup>1,2\*</sup> Ryo Horita, PhD,<sup>1</sup> Tadahiro Sado, PhD,<sup>1,3</sup> Seiko Mizutani, MSN,<sup>4</sup> Takahiro Watanabe, MD,<sup>5</sup> Ryosuke Uehara, MD<sup>6</sup> and Mayumi Yamamoto, MD, PhD, MBA<sup>1,7</sup>

<sup>1</sup>Health Administration Center, <sup>2</sup>Division of Neuroscience, Department of Psychopathology, Graduate School of Medicine, Gifu University, Gifu, <sup>3</sup>Faculty of Health Promotional Sciences, Tokoha University, Hamamatsu, <sup>4</sup>Faculty of Nursing, Nihon Fukushi University, Tokai, <sup>5</sup>Midori Hospital, Gifu, <sup>6</sup>Yoshida Hospital, Nara, <sup>7</sup>United Graduate School of Drug Discovery and Medical Information Sciences, Gifu University, Gifu, Japan

**Aim:** Many studies have reported that the prevalence of mental illness and cognitive disability is higher among homeless individuals compared to the general population, and the rates of mental illness among the homeless population have recently increased. This study: (i) compares causes of homelessness or barriers to escaping homelessness for people with/without mental illness/cognitive disability; (ii) reveals problems with the Japanese homeless policy; and (iii) proposes an effective and necessary support system.

**Methods:** The participants were 114 homeless individuals. A psychiatric diagnostic interview and the Wechsler Adult Intelligence Scale, version III were used to measure participants' mental health and cognitive abilities. A questionnaire was administered comprising 17 items related to the causes of their homelessness and barriers to escaping from it. Participants were divided into four groups – with/without mental illness or cognitive disability – and Fisher's exact test was used to compare the questionnaire results.

**Results:** Individuals with cognitive disabilities considered bad relationships with their family members to be the cause of their homelessness. Conversely, normal individuals considered their homelessness to be the result of debt more so than did individuals with mental problems. Individuals with mental illness had more difficulties escaping homelessness than did either normal individuals or individuals with cognitive disability. This tendency was observed most strongly among individuals with both mental illness and cognitive disability.

**Conclusion:** Most homeless individuals considered economic problems to be the cause of their homelessness; however, difficulties with human relationships were also important factors and were more difficult for participants to acknowledge. Furthermore, these difficulties were exacerbated among those individuals with mental problems.

**Key words:** cognition, homeless persons, mental disorders, prevalence, surveys and questionnaires.

MANY STUDIES HAVE reported that the prevalence of mental illness or intellectual/cognitive disability is higher among homeless individuals compared to the general population in Western countries.<sup>1–9</sup> We have also reported higher

prevalence of mental illness and cognitive disability among the Japanese homeless population.<sup>10,11</sup> According to our previous report, 42.1% were diagnosed with mental illness and 34.2% demonstrated cognitive disability. Susser *et al.*<sup>12,13</sup> reported that the risk of homelessness among people with severe mental illness was 10–20 times greater than that seen among the general population, suggesting some specific causes of homelessness for people with mental problems. Furthermore, North *et al.*<sup>14</sup> reported that the rates of psychiatric disorders

\*Correspondence: Akihiro Nishio, MD, PhD, Health Administration Center, Gifu University, 1-1 Yanagido, Gifu 501-1193, Japan.

Email: a\_nishio@gifu-u.ac.jp

Received 28 June 2016; revised 14 September 2016; accepted 18 October 2016.

among the homeless population likely increased from the 1980s to the 2000s. Although we do not have any data concerning changes in the numbers of people with mental problems among the homeless, we presume, based on interviews with supporters of homeless people, that the numbers of mental problems among the Japanese homeless have increased over the past 10 years. This suggests that there are some barriers that impede these individuals' abilities to escape homelessness.

In the first place, 'Why did they become homeless, and why can they not quit being homeless?' The Japanese government provides public assistance to poor people. If a household's total income falls below the minimum living expense set by the Health and Welfare Minister, all individuals can benefit from this social assistance without exception. Why, then, are they unable or unwilling to receive the public assistance, which results in their being homeless? Why do they live on the street? Are there some barriers to receiving aid once they are homeless? This study examined these questions from the viewpoint of mental health problems, as we thought the high prevalence of mental problems among the homeless indicated the existence of some barriers to receiving public assistance.

Therefore, we analyzed the causes of homelessness and the disability-related barriers that impede individuals' escape from homelessness. This study also reveals the problem of Japanese policy regarding the homeless and proposes an effective and necessary support system.

## METHODS

### Design and participants

According to the US Department of Health and Human Services, someone who is 'homeless' is 'an individual who lacks housing without regard to whether the individual is a member of a family, including an individual whose primary residence during the night is a supervised public or private facility (e.g., shelters) that provides temporary living accommodations, and an individual who is a resident in transitional housing.'<sup>15</sup> This was the definition used for this survey. Homeless individuals were recruited in cooperation with the Sasashima Support Center.

### Ethics statement

The Ethical Review Committee of Gifu University's Graduate School of Medicine approved this research protocol on 6 August 2014 (approval No. 26–133). All participants received detailed face-to-face explanations regarding the protocol before providing their consent. The consent form was written in an easy-to-read manner. On humanitarian grounds, participants who required medical care or welfare services based on interviews and medical records were referred to the appropriate medical institutions at the time of the survey.

### Measurements

The psychiatric diagnostic interview, the Wechsler Adult Intelligence Scale, version III (WAIS-III),<sup>16</sup> and a semi-structured interview were conducted by accredited psychiatrists, clinical psychologists, and other medical professionals in quiet rented separate meeting rooms at an office building near Nagoya Station. Psychiatrists conducted semi-structured interviews using the Mini-International Neuropsychiatric Interview based on diagnostic criteria from the DSM-IV-TR. Clinical psychologists assessed each participant's current intellectual capacity using the simplified version of the WAIS-III. This study used the method of Dairoku *et al.*<sup>17</sup> which consists of four WAIS-III subtests (Picture Completion, Digit Symbol-Coding, Digit Span, and Information) from among 13. Total IQ was calculated by doubling four total scores and adding 20 points. We considered individuals whose IQ was below 70 to have cognitive disabilities. The 114 participants were divided into the following four groups: (A) without a mental/cognitive diagnosis, (B) only a cognitive disability, (C) only a mental illness, and (D) both a cognitive disability and mental illness.

Participants responded to the question: 'Why did you become homeless? Please choose the number that fits your feelings, from *strongly agree* to *strongly disagree*, for eight items.' The questionnaires are presented in Table 1. Subsequently, the participants responded to the question: 'Do you want to transition from homelessness?' We excluded 10 individuals who responded *strongly disagree* to this question. The other 104 individuals responded to the question: 'Why is it difficult for you to get out of street life? Please choose the number that fits your feelings, from *strongly agree* to *strongly disagree* for the nine

**Table 1.** Questionnaire concerning the causes of homelessness

Q1. Why did you become homeless?	
Reason	
1	Because I lost my job due to my lack of ability or qualifications.
2	Because of social reasons, such as bankruptcy or recession.
3	Because I had a bad relationship with my family.
4	Because I had a bad relationship with someone outside my family.
5	Because of illness.
6	Because of an accident such as a traffic accident or crime.
7	Because of debt.
8	Because of my lack of will.
Q2. Do you want to transition from homelessness?	
Q3. Why is it difficult for you to get out of street life?	
Reason	
9	Because I don't have any guarantor for housing.
10	Because I have no job.
11	Because I dislike using homeless shelters.
12	Because I have difficulties with human relationships.
13	Because I don't like public office contacting my family about receiving public assistance.
14	Because it is troublesome to follow the necessary procedures for receiving public assistance.
15	Because I dislike receiving public assistance.
16	I don't know why.
17	Because I don't like having my place of residence known because of my debt.

items' (Table 1). We categorized those who answered *strongly agree*, *agree*, or *neutral* as belonging to the Agree group, while those who answered either *disagree* or *strongly disagree* were placed into the Disagree group. The reason we categorized *neutral* as belonging to the Agree group was that we considered the choice of the 'neutral position' to indicate the participants' modest agreement, as there was a degree of shame attached to agreement with each response. In this case, we reasoned the participants would select the *neutral* choice because they were ashamed to readily agree with the statements. The abovementioned items were derived from a 2013 study, in which we asked all participants the following two questions: 'Why did you fall into street life?' and 'Why is it difficult for you to get out of street life?' We obtained the

answers using an unrestricted interview style and analyzed the responses using the Affinity Diagram Method.<sup>18</sup> There were eight and nine components for the first and second questions, respectively. This study's items regarding the causes of homelessness and the barriers impeding the transition from homelessness were created from these components.<sup>19</sup>

## Statistical analyses

Statistical analyses were performed using JMP1 ver. 10.0.2 (SAS Institute, Tokyo, Japan). Fisher's exact test was used to compare Group A against Groups B, C, and D with significance set at  $P < 0.05$ , and the odds ratios (OR) were calculated for each of the items previously mentioned.

## RESULTS

### Participant characteristics and diagnosis

Of the 114 participants (106 men and 8 women) enrolled in this study, all were Japanese, and their ages ranged from 20 to 78 years, with a mean age of  $54.0 \pm 12.6$  (SD). Of the 42.1% (95% confidence interval [CI], 33.4–51.3) of participants who were diagnosed by certified psychiatrists with a mental illness, 4.4% (95%CI, 1.9–9.9%) had schizophrenia or another psychotic disorder, 17.5% (95%CI, 11.6–25.6%) had a mood disorder, 2.6% (95%CI, 0.9–7.5%) had an anxiety disorder, 14.0% (95%CI, 8.8–21.6%) had a substance-related disorder, and 3.5% (95%CI, 1.4–8.8%) had a personality disorder. Their cognitive abilities were measured with the WAIS-III scores, as shown in Table 2. Mean IQ was  $79.2 \pm 21.0$ , excluding one participant who had an IQ too low to be measured with the WAIS-III. Cognitive disability affected 34.2% of the participants, and the overlap between mental illness and cognitive disability was 15.8%. Only 39.5% were considered to have neither a cognitive disability nor a diagnosed mental illness.

### Reasons for becoming homeless according to participants

Table 3 shows the results for the multivariate adjusted analysis. Participants with both cognitive disability and mental illness had a significant tendency to consider Reason 3, 'Because I had a bad relationship with my family' (OR, 3.868; 95% CI, 1.256–11.901;  $P < 0.05$ ). Examining the responses individually, 39 individuals (34.2%)

**Table 2.** Relationships between diagnosed mental illness and cognitive disabilities

	Normal intelligence	Cognitive disability	Total
No mental illness	(A) 45 (39.5%)	(B) 21 (18.4%)	66 (57.9%)
Mental illness	(C) 30 (26.3%)	(D) 18 (15.8%)	48 (42.1%)
Total	75 (65.8%)	39 (34.2%)	114 (100%)

agreed with Reason 1. Compared to Group A, individuals in Groups C and D (especially those who had mental illness with some cognitive disability) tended to think their homelessness was a result of their lack of ability or qualifications. Forty-six participants (40.3%) agreed with Reason 2, and this was the second most popularly reported cause, although there was no clear tendency demonstrated therein.

Another commonly chosen cause was Reason 3, with which 43 individuals (37.7%) agreed. This revealed that individuals in Group B and, especially, Group D, were much more likely to have bad relationships with their families than were those in Groups A or C. Thirty-four individuals (29.8%) agreed with Reason 4, which indicated a significant trend of individuals with mental illness; in other words, individuals in Groups C and D had particularly bad relationships with people other than their family members.

Twenty-eight individuals (24.6%) agreed with Reason 5. Individuals in Group D showed a greater tendency toward reporting illness; however, the difference between individuals with mental illness and normal individuals was not large. Twenty-three individuals (20.2%) agreed with Reason 6; however, no clear trend was evident. Thirty individuals (26.3%) agreed with Reason 7, and normal individuals were more likely to report this as a cause than were any of the other three groups.

The most popularly chosen cause was Reason 8, with which 54 individuals (47.4%) agreed. Individuals in Groups C and D tended to think their homelessness was caused by their lack of will. As a whole, the results revealed that individuals with mental problems had more difficulties than normal individuals. In particular, individuals with cognitive disabilities had bad relationships with their family members, which seemed to be the cause of their homelessness. On the other hand, normal individuals became homeless because of debt more so than did individuals with mental problems.

### Barriers impeding the transition from homelessness

Table 4 shows the results for the multivariate adjusted analysis. Participants with both cognitive disability and mental illness had a significant tendency to consider Reason 12, 'Because I had difficulties with human relationships' (OR, 3.713; 95% CI, 1.124–12.158;  $P < 0.05$ ) and Reason 16, 'I don't know why.' Looking at the responses individually, 49 individuals (47.1%) agreed with Reason 9. This result showed that having no guarantor created more of a barrier for individuals with mental illness than for those without. The most popularly chosen reason was Reason 10, with which 54 individuals (51.9%) agreed; however, no clear trend concerning mental problems was observed. The second most popularly chosen reason was Reason 11, with which 50 individuals (48.1%) agreed. This revealed that utilizing homeless shelters did not often lead to a transition out of homelessness. Rather, individuals with mental illness tended to dislike using homeless shelters.

Forty-seven individuals (45.2%) agreed with Reason 12. Individuals with mental illness, and especially those with mental illness combined with cognitive disabilities, tended to have more difficulties with human relationships than did normal individuals. Thirty individuals (28.8%) agreed with Reason 13, and individuals in Group D were less likely to agree with this than were those of the other groups. Twenty-nine individuals (27.9%) agreed with Reason 14. Individuals in Group D had a greater tendency to resist completing the procedures necessary to receive public assistance than any of the other three groups.

Thirty-two individuals (30.8%) agreed with Reason 15. Normal individuals had a greater tendency to dislike receiving public assistance compared to the other groups. Twenty-two individuals (21.1%) agreed with Reason 16. Individuals in Group D tended to not know what barrier impeded them from transitioning from homelessness more so than did individuals of other groups. Fourteen individuals (13.5%) agreed

**Table 3.** Multivariate adjusted OR and 95%CI for responses to 'Why did you become homeless?'

	Number		Portion (%)		OR		
	Agree	Disagree	Agree	Disagree	OR	CI	P
Reason 1 'Because I lost my job due to my lack of ability or qualification.'							
(A) Normal	13	32	28.9	71.1			
(B) Cognitive disability	4	17	19.0	81.0	0.579	0.173–1.976	0.548
(C) Mental illness	12	18	40.0	60.0	1.641	0.628–4.297	0.331
(D) Cognitive disability + mental illness	10	8	55.6	44.4	3.077	1.014–9.351	0.081
Reason 2 'Because of social reasons, such as bankruptcy or recession.'							
(A) Normal	20	25	44.4	55.6			
(B) Cognitive disability	6	15	28.6	71.4	0.5	0.169–1.494	0.284
(C) Mental illness	10	20	33.3	66.7	0.625	0.243–1.615	0.471
(D) Cognitive disability + mental illness	10	8	55.6	44.4	1.563	0.531–4.591	0.578
Reason 3 'Because I had a bad relationship with my family.'							
(A) Normal	13	32	28.9	71.1			
(B) Cognitive disability	11	10	52.4	47.6	2.708	0.943–7.792	0.099
(C) Mental illness	8	22	26.7	73.3	0.895	0.325–2.476	1
(D) Cognitive disability + mental illness	11	7	61.1	38.9	3.868	1.256–11.901	0.023*
Reason 4 'Because I had a bad relationship with someone outside my family.'							
(A) Normal	9	36	20.0	80.0			
(B) Cognitive disability	6	15	28.6	71.4	1.6	0.502–5.145	0.532
(C) Mental illness	11	19	36.7	63.3	2.316	0.832–6.445	0.121
(D) Cognitive disability + mental illness	8	10	44.4	55.6	3.2	1.008–10.224	0.063
Reason 5 'Because of illness.'							
(A) Normal	11	34	24.4	75.6			
(B) Cognitive disability	4	17	19.0	81.0	0.727	0.213–2.523	0.758
(C) Mental illness	6	24	20.0	80.0	0.773	0.260–2.315	0.781
(D) Cognitive disability + mental illness	7	11	38.9	61.1	1.967	0.631–6.180	0.355
Reason 6 'Because of an accident such as traffic accident or crime.'							
(A) Normal	8	37	17.8	82.2			
(B) Cognitive disability	4	17	19.0	81.0	1.088	0.306–3.931	1
(C) Mental illness	8	22	26.7	73.3	1.682	0.568–4.986	0.398
(D) Cognitive disability + mental illness	3	15	16.7	83.3	0.925	0.235–3.728	1
Reason 7 'Because of debt.'							
(A) Normal	16	29	35.6	64.4			
(B) Cognitive disability	3	18	14.3	85.7	0.302	0.083–1.122	0.089
(C) Mental illness	7	23	23.3	76.7	0.552	0.199–1.538	0.313
(D) Cognitive disability + mental illness	4	14	22.2	77.8	0.518	0.154–1.772	0.379
Reason 8 'Because of my lack of will.'							
(A) Normal	18	27	40.0	60.0			
(B) Cognitive disability	8	13	38.1	61.9	0.923	0.326–2.630	1
(C) Mental illness	17	13	56.7	43.3	1.962	0.776–4.958	0.167
(D) Cognitive disability + mental illness	11	7	61.1	38.9	2.357	0.786–7.047	0.166

\**P* < 0.05. CI, confidence interval; OR, odds ratio.

with Reason 17. Debt problems seem to be very rare for individuals with cognitive disability.

As a whole, these results reveal that individuals with mental illness have more difficulty transitioning from homelessness than do either normal

individuals or individuals with cognitive disabilities. This tendency was observed most strongly among individuals with both mental illness and cognitive disability. Furthermore, normal individuals tended to dislike public assistance.

**Table 4.** Multivariate adjusted OR and 95%CI for responses to 'Why is it difficult for you to get out of street life?'

	Number		Portion (%)		Odds ratio		
	Agree	Disagree	Agree	Disagree	OR	CI	P
Reason 9 'Because I do not have any guarantor for housing.'							
(A) Normal	17	26	39.5	60.5			
(B) Cognitive disability	5	10	33.3	66.7	0.765	0.232–2.549	0.764
(C) Mental illness	17	13	56.7	43.3	2	0.784–5.104	0.162
(D) Cognitive disability + mental illness	10	6	62.5	37.5	2.549	0.802–8.061	0.147
Reason 10 'Because I have no job.'							
(A) Normal	23	20	53.5	46.5			
(B) Cognitive disability	8	7	53.3	46.7	0.994	0.315–3.132	1
(C) Mental illness	15	15	50.0	50.0	0.87	0.345–2.191	0.815
(D) Cognitive disability + mental illness	9	7	56.3	43.8	1.118	0.361–3.45	1
Reason 11 'Because I dislike using homeless shelters.'							
(A) Normal	18	25	41.9	58.1			
(B) Cognitive disability	4	11	26.7	73.3	0.505	0.146–1.773	0.365
(C) Mental illness	17	13	56.7	43.3	1.816	0.714–4.618	0.241
(D) Cognitive disability + mental illness	11	5	68.8	31.3	3.056	0.931–9.934	0.084
Reason 12 'Because I have difficulties with human relationships.'							
(A) Normal	16	27	37.2	62.8			
(B) Cognitive disability	4	11	26.7	73.3	0.614	0.177–2.167	0.541
(C) Mental illness	16	14	53.3	46.7	1.929	0.755–4.927	0.232
(D) Cognitive disability + mental illness	11	5	68.8	31.3	3.713	1.124–12.158	0.042*
Reason 13 'Because I do not like public office contacting my family about receiving public assistance.'							
(A) Normal	13	30	30.2	69.8			
(B) Cognitive disability	4	11	26.7	73.3	0.839	0.238–3.010	1
(C) Mental illness	11	19	36.7	63.3	1.336	0.505–3.542	0.618
(D) Cognitive disability + mental illness	2	14	12.5	87.5	0.33	0.074–1.514	0.199
Reason 14 'Because it is troublesome to follow the necessary procedure for receiving public assistance.'							
(A) Normal	9	34	20.9	79.1			
(B) Cognitive disability	3	12	20.0	80.0	0.944	0.238–3.847	1
(C) Mental illness	10	20	33.3	66.7	1.889	0.670–5.328	0.284
(D) Cognitive disability + mental illness	7	9	43.8	56.3	2.938	0.886–9.827	0.104
Reason 15 'Because I dislike receiving public assistance itself.'							
(A) Normal	18	25	41.9	58.1			
(B) Cognitive disability	4	11	26.7	73.3	0.505	0.146–1.773	0.365
(C) Mental illness	6	24	20.0	80.0	0.347	0.121–1.002	0.076
(D) Cognitive disability + mental illness	4	12	25.0	75.0	0.463	0.136–1.609	0.365
Reason 16 'I do not know why.'							
(A) Normal	6	37	14.0	86.0			
(B) Cognitive disability	2	13	13.3	86.7	0.949	0.196–4.759	1
(C) Mental illness	7	23	23.3	76.7	1.877	0.583–6.039	0.36
(D) Cognitive disability + mental illness	7	9	43.8	56.3	4.796	1.342–17.257	0.03*
Reason 17 'I do not like having my place of residence known because of my debt.'							
(A) Normal	7	36	16.3	83.7			
(B) Cognitive disability	1	14	6.7	93.3	0.367	0.055–2.582	0.666
(C) Mental illness	5	25	16.7	83.3	1.029	0.308–3.457	1
(D) Cognitive disability + mental illness	1	15	6.3	93.8	0.343	0.052–2.398	0.427

\*P &lt; 0.05. CI, confidence interval; OR, odds ratio.

## DISCUSSION

This study is the first to demonstrate the causes of homelessness and the barriers impeding the transition from homelessness from the viewpoint of mental problems in Japan. First, this study showed that the majority of homeless individuals consider lack of ability and economic factors (Reasons 1, 2, and 8) to be responsible for their homelessness. In other words, the majority consider their homelessness to be a result of unemployment.

Second, it is notable that a high rate of individuals, and particularly individuals with cognitive disabilities, consider difficulties with human relationships to be the cause of their homelessness (Reasons 3 and 4). Homelessness is not a simple economic problem; rather, it is a loss of all support, including family relationships and friendships. If these individuals had not lost their good relationships with others, they would not have been homeless. It might be considered that homeless individuals with cognitive disabilities have undesirable human relationships because of their disabilities. On the other hand, the homeless people without mental problems had a greater tendency to have more debt problems compared to the other groups (Reason 7).

This study also revealed that the most popular reason concerning barriers impeding the transition from homelessness was Reason 10. This indicates that about half of people considered homelessness to be a problem of unemployment. The second most popularly chosen reason was 11, which coincided somewhat with Reason 12. Individuals who use homeless shelters in Japan are forced to live in groups. Individuals with mental illness are particularly troubled by such a situation; therefore, it is conceivable that living in a homeless shelter poses a great barrier to transitioning out of homelessness, especially for individuals with mental illness.

The third most popular cause was Reason 9, indicating that people in Japan cannot rent an apartment without a guarantor, except in special cases. It is very difficult for individuals with mental illness who have few or troubled human relationships to find a guarantor. In this regard, there were barriers for individuals with mental illness more so than for normal individuals.

Reasons 13 and 17 are closely related. Many homeless people had experienced debt or fights with their family members before becoming homeless. The undesirable past relationships might present a

barrier to their maintaining contact with their family members, which could also impede their transition out of homelessness. The four groups differed significantly in their responses to Reason 16. Individuals with mental illness and cognitive disability might not understand their situation and might be unable to find a way out of their homelessness. Based on these results, most homeless individuals considered economic problems to be the cause of their homelessness; however, difficulties with human relationships were also important factors and were more difficult for participants to acknowledge. Furthermore, these difficulties seemed to be more problematic for individuals with mental problems.

Two main approaches for dealing with these problems have been investigated in the USA and Canada over the last several decades.<sup>20,21</sup> One is the Treatment First model. This requires homeless people to first address their mental health issues by using homeless shelters or temporary housing before finally accessing independent housing. In contrast to this model, the Housing First model is defined as 'housing assistance that is offered without preconditions (such as sobriety or a minimum income threshold) or service participant requirements' with 'rapid placement and stabilization in permanent housing' as its primary goals.<sup>22</sup> Recent reviews of the literature suggest that in North American contexts, the Housing First model is particularly appropriate for homeless people with mental illness.<sup>20,21</sup> Compared to Treatment First programs, Housing First programs report greater residential stability and fewer arrests, greater control over drug and alcohol use, better health outcomes and well-being, and lower residential and health costs.<sup>23–28</sup>

However, the Housing First model is not predominant in Japan. The 'self-support of needy person' act is the law that covers Japan's homeless problem. It emphasizes job training and conditioned job searching to aid individuals in receiving housing assistance.<sup>29</sup> The typical intervention to alleviate housing problems is the shelter program. Shelter programs can help individuals avoid long waiting lists for primary and specialty services, and they may be places that provide needed structure for the homeless. However, shelter rules have often been found to be detrimental, depending on their restrictiveness and mode of enforcement.<sup>30,31</sup> This is commonly due to their potential to diminish personhood and autonomy, which are integral to an individual's overall well-being, as well as to the

recovery process from trauma. In addition, shelter rules have been found to impede parenting practices and family routines that can support mental and emotional well-being.<sup>32,33</sup> Behar *et al.*<sup>34</sup> mentioned how the correlation matrices indicated that poor mental health was correlated with difficulty following rules and a less favorable perception of the shelter's social environment. Our study showed homeless individuals with mental illness had more difficulty with other individuals in homeless shelters, and that became a barrier to their transition out of homelessness.

Although the Housing First model would be unable to improve homeless individuals' bad relationships with relatives, it would remove the barriers to renting an apartment. In the first place, homeless people have lost not only housing, jobs, and money, but they have also lost their good relationships with relatives, friends, and the community. Providing an apartment without conditions would help put an end to their homelessness. Good-quality, stable housing provides the 'ontological security'<sup>35</sup> necessary for developing self-esteem, a non-homeless identity, social relationships, and a new community role.

However, we should also mention that housing alone is insufficient for many homeless individuals with mental problems. A treatment or job training program should be conducted after the homeless person is established in stable housing. It is also necessary to implement a program that helps homeless people to connect with the local community. According to Craig *et al.*'s meta-analysis of 52 articles,<sup>36</sup> assertive community treatment demonstrated a 26% greater improvement in psychiatric symptom severity compared with standard case management treatments. Settling in a stable residence will help homeless individuals recover their human and local relationships.

## Conclusion

Most homeless individuals considered economic problems to be the cause of their homelessness; however, difficulties with human relationships were also important factors and were more difficult for participants to acknowledge. These difficulties were more harmful for individuals with mental problems. For such people, we think the Housing First model is an appropriate approach.

## ACKNOWLEDGMENTS

We would like to express our appreciation to the staff of the Sasashima Support Center, the NPO, and the psychiatrists, clinical psychologists, certified social workers, and nurses who cooperated with this survey.

## DISCLOSURE STATEMENT

Our survey was financed by the Gifu Prefecture Medical Association. The authors declare that they have no conflicts of interest.

## AUTHOR CONTRIBUTIONS

Conceived and designed the survey: A.N., T.W., and R.U. Performed the survey: A.N., R.H., T.S., T.W., S.M., and R.U. Analyzed the data: A.N. and M.-Y. Wrote the article: A.N. and M.Y.

## REFERENCES

1. Dunne E, Duggan M, O'Mahony J. Mental health service for homeless: Patient profile and factors associated with suicide and homicide. *Ir. Med. J.* 2012; **105**: 71–72.
2. Edidin JP, Ganim Z, Hunter SJ, Karnik NS. The mental and physical health of homeless youth: A literature review. *Child Psychiatry Hum. Dev.* 2012; **43**: 354–375.
3. Fichter MM, Quadflieg N. Prevalence of mental illness in homeless men in Munich, Germany: Results from a representative sample. *Acta Psychiatr. Scand.* 2001; **103**: 94–104.
4. Längle G, Egerter B, Albrecht F, Petrasch M, Buchkremer G. Prevalence of mental illness among homeless men in the community—Approach to a full census in a southern German university town. *Soc. Psychiatry Psychiatr. Epidemiol.* 2005; **40**: 382–390.
5. Salize HJ, Dillmann-Lange C, Stern G *et al.* Alcoholism and somatic comorbidity among homeless people in Mannheim, Germany. *Addiction* 2002; **97**: 1593–1600.
6. Rohde P, Noell J, Ochs L. IQ scores among homeless older adolescents: Characteristics of intellectual performance and associations with psychosocial functioning. *J. Adolesc.* 1999; **22**: 319–328.
7. Oakes PM, Davies RC. Intellectual disability in homeless adults: A prevalence study. *J. Intellect. Disabil. Res.* 2008; **12**: 325–334.
8. Mercier C, Picard S. Intellectual disability and homelessness. *J. Intellect. Disabil. Res.* 2011; **55**: 441–449.
9. Van Straaten B, Schrijvers CT, Van der Laan J *et al.* Intellectual disability among Dutch homeless people: Prevalence and related psychosocial problems. *PLoS One* 2014; **9**: e86112.



10. Nishio A, Yamamoto M, Horita R *et al.* Prevalence of mental illness, cognitive disability, and their overlap among the homeless in Nagoya, Japan. *PLoS One* 2015; **10**: e0138052.
11. Nishio A, Yamamoto M, Ueki H *et al.* Prevalence of mental illness, intellectual disability, and developmental disability among homeless people in Nagoya, Japan: A case series study. *Psychiatry Clin. Neurosci.* 2015; **69**: 534–542.
12. Susser ES, Lin SP, Conner S. Risk factors for homelessness among patients admitted to a state mental hospital. *Am. J. Psychiatry* 1991; **148**: 1659–1664.
13. Susser E, Moore R, Link B. Risk factors for homelessness. *Epidemiol. Rev.* 1993; **15**: 546–556.
14. North CS, Eyrich KM, Pollio DE, Spitznagel EL. Are rates of psychiatric disorders in the homeless population changing? *Am. J. Public Health* 2004; **94**: 103–108.
15. Legal Information Institute. U.S. Code § 11302—General definition of homeless individual. 2015. [Cited 23 June 2016.] Available from URL: <https://www.law.cornell.edu/uscode/text/42/11302>
16. Wechsler D. *Wechsler Adult Intelligence Scale-III*. Psychological Corporation, San Antonio, TX, 1997.
17. Dairoku H, Yamanaka K, Fujita K, Maekawa H. Simplified method for Japanese version of the WAIS-III (II)—Comparison of the methods to estimate the full scale IQ. *Jpn. Psychol. Assoc. Meet. Mem.* 2008; **433**.
18. Widjajaa W, Yoshiia K, Hagaa K *et al.* Discussys: Multiple user real-time digital sticky-note affinity-diagram brainstorming system. *Procedia Comput. Sci.* 2013; **22**: 113–122.
19. Nishio A, Horita R, Sado T *et al.* Relationship between mental illness or intellectual disability and homeless life. *Environ. Health Int.* 2015; **SI**: 147–151.
20. Fitzpatrick-Lewis D, Ganann R, Krishnaratne S, Ciliska D, Kouyoumdjian F, Hwang SW. Effectiveness of interventions to improve the health and housing status of homeless people: A rapid systematic review. *BMC Public Health* 2011; **11**: 638.
21. Hwang SW, Tolomiczenko G, Kouyoumdjian FG, Garner RE. Interventions to improve the health of the homeless: A systematic review. *Am. J. Prev. Med.* 2005; **29**: 311–319.
22. Department of Housing and Urban Development. *Notice of Funding Availability (NOFA) for the Fiscal Years 2013 and 2014: Continuum of Care Program Competition*. US Department of Housing and Urban Development, Washington, DC, 2013. [Cited 23 June 2016.] Available from URL: [www.onecpd.info/resources/documents/FY2013](http://www.onecpd.info/resources/documents/FY2013).
23. Department of Housing and Urban Development [Docket No. FR-5700-N-31B]. Notice of Funding Availability (NOFA) for the fiscal years 2013 and 2014. Continuum of Care Program Competition. 2013. [Cited 23 June 2016.] Available from URL: <http://www.kyhousing.org/Specialized-Housing/Documents/FY2013-2014CoCProgramNOFA.pdf>.
24. Padgett DK, Stanhope V, Henwood BF *et al.* Substance use outcomes among homeless clients with serious mental illness: Comparing housing first with treatment first programs. *Community Ment. Health J.* 2011; **47**: 227–232.
25. Stefancic A, Tsemberis S. Housing first for long-term shelter dwellers with psychiatric disabilities in a suburban county: A four-year study of housing access and retention. *J. Prim. Prev.* 2007; **28**: 265–279.
26. Clifasefi SL, Malone DK, Collins SE. Exposure to project-based housing first is associated with reduced jail time and bookings. *Int. J. Drug Policy* 2012; **24**: 291–296.
27. Larimer ME, Malone DK, Garner MD *et al.* Health care and public service use and costs before and after provision of housing for chronically homeless persons with severe alcohol problems. *JAMA* 2009; **301**: 1349–1357.
28. Rosenheck R, Kaspro W, Frisman L, Liu-Mares W. Cost-effectiveness of supported housing for homeless persons with mental illness. *Arch. Gen. Psychiatry* 2003; **60**: 940–951.
29. Ministry of Health, Labour and Welfare. Explanation of 'system of self-support of needy person.' 2015. [Cited 23 June 2016.] Available from URL: <http://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000073432.html> (in Japanese).
30. Deward S, Moe A. 'Like a prison!': Homeless women's narratives of surviving shelter. *J. Sociol Soc. Welf.* 2010; **37**: 115–135.
31. Krane J, Davies L. Mothering under difficult circumstances: Challenges to working with battered women. *Affilia* 2007; **22**: 23–38.
32. Schultz-Krohn W. The meaning of family routines in a homeless shelter. *Am. J. Occup. Ther.* 2004; **58**: 531–542.
33. Fiese B. *Family Routines and Rituals*. Yale University Press, New Haven, CT, 2006.
34. Behariera N, Lennon MC, McKayb M. Assessing the relationship between the perceived shelter environment and mental health among homeless caregivers. *Behav. Med.* 2015; **41**: 107–114.
35. Padgett DK. There's no place like (a) home: Ontological security among persons with serious mental illness in the United States. *Soc. Sci. Med.* 2007; **64**: 1925–1936.
36. Coldwell CM, Bender WS. The effectiveness of assertive community treatment for homeless populations with severe mental illness: A meta-analysis. *Am. J. Psychiatry* 2007; **164**: 393–399.