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Original Article

Living Conditions, Ability to Seek Medical Treatment, and Awareness of Health Conditions and Healthcare Options among Homeless Persons in Tokyo, Japan

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Empirical data indicative of the health conditions and medical needs of homeless persons are scarce in Japan. In this study, with the aim of contributing to the formulation of future healthcare strategies for the homeless, we conducted a self-administered questionnaire survey and interviews at a park in Shinjuku Ward, Tokyo, to clarify the living conditions of homeless persons and their health conditions and awareness about the availability of medical treatment. Responses from 55 homeless men were recorded (response rate: 36.7%). With the exception of one person, none of them possessed a health insurance certificate. Half of the respondents reported having a current income source, although their modal monthly income was ¥30,000 ($1 was approximately ¥90). The number of individuals who responded "yes" to the questions regarding "Consulting a doctor on the basis of someone's recommendation" and "Being aware of the location of the nearest hospital or clinic" was significantly higher among those who had someone to consult when they were ill than among those who did not (the odds ratios [95% confidence intervals] were 15.00 [3.05–93.57] and 11.45 [1.42–510.68], respectively). This showed that whether or not a homeless person had a person to consult might influence his healthcare-seeking behavior. When queried about the entity they consulted (multiple responses acceptable), respondents mentioned "life support organizations" (61.1%) and "public offices" (33.3%). Overall, 94.5% of the respondents were aware of swine flu (novel influenza A (H1N1)). Their main sources of information were newspapers and magazines. On the basis of these findings, with regard to the aim of formulating healthcare strategies for homeless persons, while life support organizations and public offices play significant roles as conduits to medical institutions, print media should be considered useful for communicating messages to homeless persons.

Key words: homeless persons, person to consult, seeking medical treatment, healthcare, swine flu

Homeless persons lack access to basic healthcare. Every day, they face the challenge of meeting their basic survival needs. Significant acute and chronic illnesses, which can be treated easily in their early stages but can cause severe morbidity and sometimes death when neglected, represent a major difficulty for homeless people [1]. According to a survey conducted in the U.S.A. from 1985–1990, an esti-

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mated 5 to 8 million Americans had experienced homelessness in the previous 5 years [2]. In addition, on the basis of a study of 6,308 homeless persons, it was reported that their age-adjusted mortality rate was nearly 4 times that of Philadelphia's general population [3].

In Japan, the "Law Concerning Special Measures to Support the Self-reliance of the Homeless" was put in place on August 7, 2002, as temporary legislation lasting 10 years. Article 2 of the law defines the homeless as those "who, for no reason, occupy city parks, rivers, roads, stations, and other facilities as the living space to lead their daily lives" [4]. According to the "National Survey on the Actual Conditions of the Homeless" conducted by the Ministry of Health, Labour and Welfare in January, 2009, the number of homeless persons in Japan was 15,759, and homeless persons were found in 504 out of the total 1,804 cities, wards, towns, and villages. By prefecture, Osaka was ranked first with 4,302 homeless persons, followed by Tokyo with 3,428, Kanagawa with 1,804, Fukuoka with 1,237, and Aichi with 929 [5].

Among the previous studies of homeless persons in Japan, one study analyzed the causes of 294 deaths among the homeless in Osaka City (Osaka Prefecture) in 2000 on the basis of records and materials filed at the Osaka Prefecture Medical Examiner's Office and other sources [6]. Another study investigated the disease structure of homeless persons in Kitakyushu City (Fukuoka Prefecture) on the basis of data from homeless patients admitted to an emergency hospital [7]. In addition, a survey on the morbidity of tuberculosis (TB) among the homeless population was conducted with the help of the registration cards issued to TB cases at health centers in Nagoya City (Aichi Prefecture) [8]. However, a lack of empirical data has been reported, indicating data on the health conditions and medical needs of homeless persons currently living in Japan [9]. With regard to Metropolitan Tokyo, other than a survey conducted by the municipality [10], very few investigations of the living conditions and medical needs of homeless persons have been performed [11].

In view of the above circumstances, with the aim of contributing to the formulation of future strategies for the healthcare of homeless persons in Japan, we conducted a field survey at a park in Shinjuku Ward, Tokyo, to clarify the living conditions of the homeless and their awareness of their health conditions and the medical treatment available.

Materials and Methods

Since November 1994, the *Shinjuku Renraku-kai* (a network group that strives to gather support for the life and employment of homeless workers in Shinjuku) has been offering free meals from 6 : 00 pm onward every Sunday at Shinjuku Central Park, Tokyo (http://www.tokyohomeless.com/body11.html accessed June 14, 2011, in Japanese). We conducted a survey consisting of a self-administered questionnaire and interviews with the people who congregated at this soup kitchen. The survey lasted from late June until mid-August 2009, and the subjects comprised 150 men and women in total. Prior to conducting the survey, we obtained approval from the Ethics Committee of Showa University School of Medicine.

The questionnaire first asked the subjects to provide basic information such as sex, age, the place where they were currently staying, educational qualifications, current possession of a health insurance certificate, possession of an income source and the amount of monthly income, and specific sources of income. It then asked the following questions regarding their awareness regarding health conditions and the seeking of medical treatment. The response choices to these questions were "yes" and "no":

1) Do you have anyone you can consult when you are ill? State the specific person(s) and/or group(s) (multiple responses acceptable).
2) Would you consult a doctor on the basis of someone's recommendation if you were ill?
3) Are you aware of the location of the nearest hospital or clinic that you can visit in case of medical need?
4) Would you like to undergo a medical examination or have a checkup to assess your health condition?
5) Do you have any information about a hospital where you could receive free treatment even if you do not possess a health insurance certificate?
6) Do you think that you lead an unhealthy lifestyle?
7) Do you get concerned for your health occasionally?

In addition, the subjects were asked whether they knew about the swine flu epidemic, which was a medical issue at the time the survey was conducted [12], and if so, how they had obtained information about it

(multiple responses acceptable).

With the aim of studying the association of respondents' awareness of seeking medical treatment with having or not having someone to consult, the odds ratios (OR) and their 95% confidence intervals (95% CI) for those having someone to consult in comparison with those not having anyone were calculated for responses to the above questions 2) to 5). The significance level was set at 5%. For data aggregation and statistical analysis, we used the SPSS 16.0J for Windows and Epi Info Version 3.3.2.

This study used data collected from a survey conducted in the "Public Health Seminar" —one of the field practices of the Social Medicine course for fifth-year students at Showa University School of Medicine. Toda, Shiraishi, Toyoda, Toyozawa, and Kamioka conducted the field survey and were guided mainly by Ohtsu and Ochiai under the supervision of Prof. Kokaze [13]. For preparation of this report, Ohtsu restructured the database from the original questionnaire sheets and carried out the tabulation and statistical analyses.

Results

Responses to this survey were obtained from 55 men (response rate: 36.7%). When asked about the place where they were currently staying, with the exception of one respondent who stated "a *manga-kissa* (comic book/Internet café)" and another who answered "a cheap lodging house, if affordable", all the respondents replied that they "slept rough". Except for one respondent who replied "I have it at my parents' home", none of the respondents possessed a health insurance certificate.

Table 1 shows the basic attributes of the respondents. Their ages ranged from 33 to 72 yrs; the largest number of respondents were in their 60s (40.0%), followed by respondents in their 50s (34.5%). The majority (56.4%) had a high school diploma. More than half of the respondents reported that they currently had an income source and that their monthly income ranged from ¥5,000 to ¥50,000, with a mode of ¥30,000 ($1 was approximately ¥90). As for the question about specific income sources, among the 24 respondents who replied to this question, the majority (62.5%) stated "day labor".

Out of 55 persons, 36 (65.5%) replied that they "had someone to consult when they were ill". When asked if they consulted a specific person(s) and/or group(s), they replied "life support organizations" (61.1%), followed by "public offices" (33.3%), "friends" (13.9%), and "family" (11.1%). Only one person stated that he consulted a "healthcare practitioner".

Table 2 shows the association of the respondents' awareness about seeking medical treatment with whether or not they have a person to consult in case of illness. For the questions on "Consulting a doctor" (see Table 2 for data on this question and other questions referred to hereafter) and "The nearest hospital or clinic", a significant increase in the OR was observed for individuals having someone to consult compared with individuals who did not have anyone. For the questions on "Medical examination or checkup" and "Hospital with free treatment", although more of those having someone to consult responded "yes" than of those who did not have anyone, a significant increase in the OR was not observed. Further, the age, educational qualifications, and current income source showed no significant relationship with whether the respondent had someone to consult (χ^2 test, $p =$

Table 1 Basic attributes of the respondents (N = 55)

	N (%)
Age[a]	
30－39	5 (9.1)
40－49	9 (16.4)
50－59	19 (34.5)
60－ yr	22 (40.0)
Educational qualifications	
junior high school	9 (16.4)
high school	31 (56.4)
university[b]	9 (16.4)
unknown	6 (10.9)
Current income source	
having	28 (50.9)
monthly income[c]	
minimum	¥5,000
maximum	¥50,000
mode	¥30,000
not having	24 (43.6)
unknown	3 (5.5)
Total	55 (100)

[a]Men aged from 33 to 72 yrs.
[b]Including 1 dropout.
[c]Responses were obtained from 15 out of 28.
$1 was approximately ¥90.

Table 2 Association of the respondents' awareness about seeking medical treatment with whether or not they have a person to consult in case of illness

Questions	N*	Person to consult[a] having Yes	having No	not having Yes	not having No	OR	95% CI
Consulting a doctor[b]	54	27	9	3	15	15.00	3.05—93.57
The nearest hospital or clinic[c]	55	14	22	1	18	11.45	1.42—510.68
Medical examination or checkup[d]	54	7	29	3	15	1.21	0.23—8.24
Hospital with free treatment[e]	54	28	7	12	7	2.33	0.55—9.68
Total	55	36 (65.5)		19 (34.5)		(%)	

[a]Do you have anyone you can consult when you are ill?
[b]Would you consult a doctor on the basis of someone's recommendation if you were ill?
[c]Are you aware of the location of the nearest hospital or clinic that you can visit in case of medical need?
[d]Would you like to undergo a medical examination or have a checkup to assess your health condition?
[e]Do you have any information about a hospital where you could receive free treatment even if you do not possess a health insurance certificate?
*The missing data have been excluded from the statistical analyses.
OR, odds ratio; CI, confidence interval.

Table 3 How the respondents obtained information about swine flu (N = 52)[a]

Source of information	N (%)
Workplaces	3 (5.8)
Friends	3 (5.8)
Television	5 (9.6)
Newspapers	34 (65.4)
Magazines	11 (21.2)
Internet	1 (1.9)
Stations/institutions	10 (19.2)
Life support organizations	10 (19.2)
Others	4 (7.7)

[a]Those who reported that they "knew about swine flu" (multiple responses acceptable).

0.785, 0.862, and 0.657).

Respondents who considered themselves to have an unhealthy lifestyle accounted for 68.5% of the total. However, those who were concerned for their health accounted only for 33.3%.

Table 3 shows how the respondents obtained information about swine flu. As many as 94.5% of the respondents had been aware of swine flu, and the majority (65.4%) had obtained the information from "newspapers", followed by "magazines" (21.2%) and both "stations/institutions" and "life support organizations" (19.2%).

Discussion

The present study clarified that, among homeless individuals, significantly more responded "yes" to the questions on "Consulting a doctor on the basis of someone's recommendation" and "Being aware of the location of the nearest hospital or clinic" among those who had a person to consult when ill than among those who did not have any such person. This finding is of considerable significance for the formulation of healthcare strategies aimed at the homeless.

Toward the end of 2008, *Toshikoshi Haken Mura* (dispatch workers' New Year Village) was set up in Hibiya Park, Tokyo, Japan, as an emergency shelter for workers who had lost their jobs and accommodation [14]. Yuasa, the organizer of the village, emphasized the importance of observing the *tame* of the homeless [15]. *Tame* is a concept along the lines of "latent ability" that encompasses, for example, savings, families/friends, and self-confidence. Poverty is a state in which people lose all these *tame*. In the present study, "having someone to consult" corresponds to *tame* in the context of the human network. Further, through *tame*, a person can be informed of the location of the nearest hospital and can take the rational action of going to a hospital in case of medical need. In other words, our survey results suggested that having a person to consult might influence the healthcare-seeking behavior of the homeless. As one

of the "barriers to health promotion among homeless people", Power *et al.* stated, "Workers with homeless people are often isolated—there is little coordination or collaboration between health promotion agencies" [16]. Considering our finding that only one person claimed he would consult a "healthcare practitioner" if he fell ill, we think that the role of "life support organizations" and "public offices" as conduits between homeless persons and medical institutions is important. Further, to ensure that more than 1/3 (34.5%, Table 2) who mentioned not having someone to consult have someone to consult, we consider it necessary that "life support organizations" and "public offices" jointly work on improving the consultation system to increase contact with homeless people.

In the "Survey on the Actual Conditions of the Homeless" (total number of valid responses: 500) conducted in the 23 wards of Tokyo in January 2007, 41.2% of the respondents were in their 50s and 46.8% were in their 60s and 70s (39.0% and 7.8%, respectively) [10]. The age composition of the respondents in our survey was similar. This indicates the aging of the homeless population, or the possibility that elderly people who are unable to work have become homeless.

The modal monthly income of respondents who reported having a current income source was ¥30,000 ($1 was approximately ¥90). On this income, living in rented accommodations in Tokyo would be very difficult. More than 60% of respondents listed "day labor" as their specific income source. Considering, for example, that the average wage of a construction day laborer is approximately ¥8,000 per day [10], we presume that these people were hired once a week.

In addition, 54 of the total 55 respondents did not possess a health insurance certificate. A survey involving medical checkups and health consultation activities among the homeless in Osaka City showed that many did not possess health insurance certificates [17]. However, a survey of patients admitted to an emergency department in Kitakyushu revealed that more than half of the homeless population required inpatient treatment within one year [7].

For people with a low income and without a health insurance certificate, healthcare-seeking behavior may not be a priority. It is pointed out that homeless persons' priorities become shelter, food, and safety, and apart from emergencies, health becomes secondary [18]. Therefore, the most urgent issues for the provision of healthcare for homeless persons should include the introduction of a welfare system, that is, to improve the implementation of the current public assistance system, to provide financial support for basic needs such as food and housing, and to provide employment assistance to allow homeless individuals to achieve economic independence.

On the basis of the medical checkup organized in 2003 for 917 homeless persons aged 55 and above in Osaka City, it was reported that the proportion of persons who were diagnosed as "Requiring treatment" or "Requiring detailed examination" for blood pressure was 35.2% [9]. According to a survey in Nagoya City between 1991 and 1995, the incidence rate and prevalence of TB among the homeless population was around 20 times higher than that among non-homeless adult residents [8]. A study in the U.S.A. reported that on average, homeless adults have eight to nine concurrent medical problems [19]. In the present study, too, approximately 70% of the respondents admitted that they had an unhealthy lifestyle. All the same, those who expressed concerns over their health accounted for no more than 33.3%, and only 10 of 54 respondents (18.5%, Table 2) expressed a desire to undergo a medical examination or health checkup. These paradoxical results can be attributed to the respondents' condition of homelessness, in which, despite being aware of their unhealthy lifestyle, they cannot for economic reasons afford to give due attention to their health, or tend to have feelings of resignation or despair about being homeless.

There are medical facilities (hospitals and clinics) that offer medical treatment free of charge, or for a minimal fee, to the underprivileged. A total of 41 such facilities exist in Tokyo:
(http://www.fukushihoken.metro.tokyo.jp/kiban/fukushi_shisetsu/shs_list/shisetsu_list/itiran/index.html (No. 7 Others) accessed June 14, 2011, in Japanese). The results of the present study showed that 74.1% of the respondents were aware of such facilities (40 of 54, Table 2).

The present results indicated that a high proportion of respondents (approximately 95%) were aware of the existence of swine flu. As for the question of how they obtained information on swine flu, the majority of the respondents (65.4%) cited "newspapers" followed by "magazines" (21.2%). As newspa-

pers and magazines can be easily obtained from dustbins at train stations and convenience stores, we presume that these media serve as important information sources for homeless persons. Power *et al.* reported that "homeless people can feel alienated from health promotion materials, as these often require high levels of literacy" [16]. However, the present results suggest that print media such as newspapers and magazines play an important role in communicating messages to Japan's homeless. This finding is noteworthy in the context of formulating healthcare strategies aimed at homeless persons.

This study had some limitations. First, the response rate was low (36.7%). It is possible that many of those who did not respond did not have the physical or mental capacity to participate in the survey. Bearing this in mind, we can assume that the conditions of the general homeless population were actually much worse than the conditions of the respondents. Second, the respondents were all men. As none of the female homeless persons wished to cooperate, their actual conditions remain unknown. One previous report has indicated that "homelessness affects people of all ages: adolescents, adult men, adult women, and families with children account for 9%, 60%, 16%, and 15% of the homeless population, respectively" in the U.S.A. [20]. Third, since our target respondents had all attended a free soup kitchen, they had successfully accessed information regarding the free soup kitchen, and, therefore, there exists a possibility that the group may have also had easier access to information on swine flu than other homeless individuals who had not learned of the free soup kitchen. Fourth, as no blood-pressure measurements or blood tests were taken, the present study was unable to provide any objective data on the health conditions of the respondents. Finally, this survey was conducted during the summer. Had it been conducted in winter, the health problems of the respondents might have been exacerbated.

In the future, it will be necessary to carry out a detailed longitudinal field survey that also includes persons who do not fall under the legal definition of homelessness, but who are *de facto* homeless. A register-based follow-up study conducted overseas reported that "homeless people staying in hostels, particularly young women, are more likely to die early than the general population" [21]. Simultaneously, an intervention study [20] that can concurrently include the provision of healthcare services for homeless persons should be implemented.

We have thus reported the findings of a self-administered questionnaire and an interview survey of homeless persons attending a free soup kitchen at a park in Shinjuku Ward, Tokyo, to clarify their living conditions and their awareness of their health conditions and about seeking medical treatment. The conclusions of this study are as follows:

1) With the exception of one person, none of the 55 male respondents possessed a health insurance certificate.

2) Although about half of the respondents reported having a current income source, the modal monthly income was ¥30,000, which indicated an economically distressed lifestyle.

3) Having a person to consult in case of illness might influence the healthcare-seeking behavior of the homeless.

4) Life support organizations and public offices play a significant role as conduits between homeless persons and medical institutions.

5) Most of the respondents were aware of swine flu, for which their primary information sources had been newspapers and magazines. Print media should be considered a useful means of communicating information to the homeless.

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