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Future perspective of psychiatric home-visit nursing provided by nursing stations in Japan

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Abstract: Psychiatric home-visit nursing supports the lives of people with mental disorders in the community and plays an important role in the "community-based integrated care system" which is rapidly being implemented in Japan. Although the number of responsive home-visit nursing stations (HVNS) is increasing, the current situation of service provision has not yet been clarified. This study aimed to investigate the characteristics and difficulties of psychiatric home-visit nursing provided by HVNS. We further discussed future care provisions and service improvements. We conducted a questionnaire survey of 7,869 member stations of the National Association for Visiting Nurse Service; of this number 2,782 facilities (35.4%) responded. Of the 2,782 facilities, 1,613 (58.0%) provided psychiatric home-visit nursing. The HVNS that provided psychiatric home-visit nursing were diverse, and the percentage of users with mental disorders ranged widely. Majority of the HVNS reported having "difficulty in caring for users/families who refuse care" (56.3%), "difficulty in care for psychiatric symptoms" (54.0%), and "difficulty in assessment of psychiatric symptoms" (49.1%), with differences in difficulty depending on the percentage of psychiatric users. As user needs and HVNS characteristics diversify, it is necessary to take advantage of the characteristics of each station to develop consultation and training systems and collaborative network platforms within each community for future sustainable service provision.

***Keywords*:** psychiatric home-visit nursing, community care, psychiatric nursing

Introduction

Transition of care in the mental health policy in Japan

One of the mental health care challenges in Japan is the large number of psychiatric beds (245.27 beds/100,000 people) (*1*) and the prolonged inpatient stays (average length of stay in psychiatric beds is 263.3 days) (*2*). To alleviate this issue, psychiatric care in Japan is shifting from hospital-based settings to community-based care in response to the de-institutionalisation policies and establishment of community-based integrated care systems (*3*).

Psychiatric home-visit nursing plays an important role in this system, supporting the recovery of patients through physical and mental status assessments, symptom management, psychological care, lifestyle support, and user empowerment (*4*). Lower admission rates and longer community stays have been reported among users receiving psychiatric home-visit nursing (*5,6*). In addition, the effectiveness of the service has been widely recognised among users, families, and care providers. Since reimbursement of the cost of home-visit nursing for people with mental disorders by medical insurance began in 1986, the number of users has been increasing every year and has nearly tripled over the past 10 years, from 58,000 in 2009 to 156,000 in 2020 (*7,8*). Japan has a universal health insurance system, and medical insurance operates as fee-for-service; thus, the use and implementation of services are influenced by the insurance reimbursement system.

There are two main providers of psychiatric home-

visit nursing services under the medical insurance system including psychiatric hospitals and clinics, and home-visit nursing stations (HVNS). The latter now provides services to two-thirds of users with mental disorders (*7*).

Development of the home-visit nursing system and home-visit nursing stations

HVNS were first established in 1992 as agencies that will provide home-visit care for the elderly in response to the super-ageing Japanese population. The manager of a station must be a nurse with at least 2.5 nurse staff. Home-visit nursing care provided by HVNS was included in the medical reimbursement system in 1994, and HVNS began to provide services to people with physical and mental illnesses of all ages (*9-11*). In 2000, a new insurance scheme, namely long-term care insurance, was established. This resulted in the spread of HVNS across the country, as agencies began providing care under both long-term care insurance and medical insurance. The number of HVNS increased from 4,730 in 2000 to 14,000 in 2022 (*12*), and HVNS users, including the elderly; people with terminal illnesses, neurological diseases, mental disorders; and children *etc*, have become more diverse (*13*). Consequently, HVNS vary according to the type and combination of users (Figure 1) (*10,13*).

Psychiatric home-visit nursing provided by HVNS

Regarding the mental health policy, "The Reform Vision of Mental Health and Welfare" was declared in 2004 with the slogan "hospital-based medical treatment to community-based care" (*14*). Policies have been implemented to promote the discharge of long-term inpatients by improving community support systems, and psychiatric home-visit nursing has been adopted as an essential social resource.

These policies and the recognition of the effectiveness of the service have enhanced the need for more psychiatric-specialised assessment and care provision by HVNS. Subsequently, "Psychiatric home-visit nursing" was separately included under medical insurance in 2012. Service is required to be provided "by staff with working experience or defined training (> 20 h) in psychiatric nursing", "to users with mental disorders and their family", and "under the direction of a psychiatrist". Currently, the number of HVNS providing psychiatric home-visit nursing is expanding, reaching 4,669 facilities with 129,754 users in 2021 (*7*).

Given the above, the situation and context of care provision in psychiatric home-visit nursing differ among HVNS. However, the current situation and difficulties faced by each station in providing psychiatric home-visit nursing services have not yet been clarified.

This study aimed to investigate the current situation of HVNS providing psychiatric home-visit nursing and the differences between the agencies in terms of their characteristics, difficulties, and future requests. We conducted a nationwide survey of HVNS and discussed the support and systems necessary for HVNS to implement and improve the quality of service.

Materials and Methods

Subjects

The potential subjects were 7,869 member stations of the National Association for Visiting Nurse Services in Japan. The survey, including the purpose, methods, ethical considerations, and information protection, was sent and explained to the director of each Home Visit Nursing station *via* fax and e-mail. We then asked the participants to fill out and return the questionnaire using a web form or fax. The returned questionnaire was valid if the participants agreed to participate. The survey was conducted from September to October 2022.

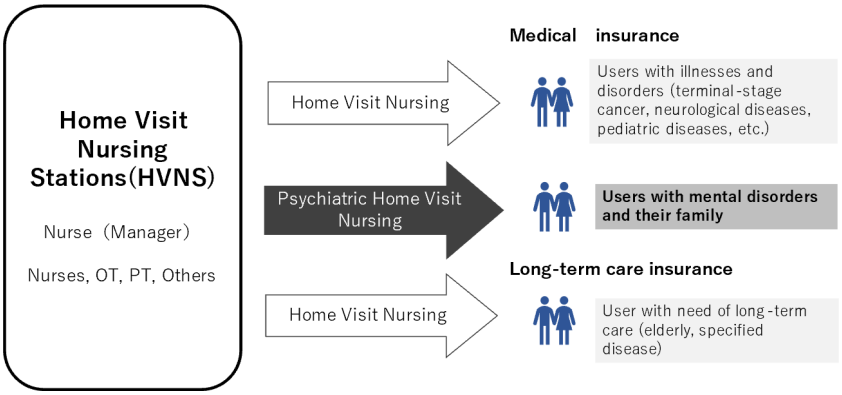

Figure 1. Users of home-visit nursing stations (HVNS). HVNS serve users under both medical and long-term care insurance. Psychiatric home-visit nurses provide medical insurance to users with mental disorders and their families. The number of users vary based on the HVNS.

Contents of the Questionnaire

The questionnaire included questions about whether they have medical facilities in the same corporation, number of home-visit users, number of psychiatric service users, number of nurses and other professionals, perceived difficulties in psychiatric home-visit nursing (13 items), and perceived need for support (nine items).

Analysis

Descriptive statistics were calculated in relation to the characteristics of HVNS. Respondents were grouped according to the percentage of psychiatric services users among all users. Subsequently, comparisons were made among the groups in terms of facility characteristics, perceived difficulties, and support needs. Comparative analysis was performed using analysis of variance and chi-square test. The SPSS software (IBM) was used for all the analysis. The significance level was set at 5%.

Ethics

Letters explaining the survey, including details that participation in the survey was voluntary, data would be managed with an ID, and publication would not include identifying information were sent to potential stations. Consent was assumed to have been given based on subject's completion and return of the survey questionnaire.

This study was approved by the review board of the National Center for Global Health and Medicine in Japan (approval No. NCGM-S-004521-00).

Results

Characteristics of the HVNS that responded to the survey

The questionnaire was distributed to 7,869 HVNS, of which 2,909 were returned with 2,782 valid responses (35.4%). Table 1 provides an overview of the responding facilities. The number of HVNS with medical facilities in the same corporation was 1,158 (41.6%), of which 300 (10.8%) had psychiatric departments. Most of the HVNS had users under both long-term care insurance (2,464; 88.6%) and medical insurance (2,579; 92.7%). The number of HVNS providing psychiatric home-visit nursing was 1,613 (58.0%). The average number of users per HVNS was 98.6, of which 62.1 (standard deviation [SD] = 109.2) were under long-term care insurance (elderly) and 38.1 (SD = 51.6) were under medical insurance. The average number of psychiatric users was 17.0 (SD = 46.6). The average number of staff members per HVNS were as follows; 7.8 (SD = 9.2) Nurses, among whom 4.0 (SD = 4.8) were eligible for psychiatric home visit nursing, 0.8 (SD = 1.5) Occupational Therapists, 1.7 (SD = 2.9) Physical Therapists or Speech-Language-Hearing Therapists, and 0.03 (SD = 0.3) Psychiatric Social Workers.

Table 1. Characteristics of responding home-visit nursing stations (HVNS) (*n* = 2,782)

Characteristics	*n*	%
Having medical facilities in the same corporation	1,158	41.6%
Psychiatry or psychosomatic department	300	10.8%
Other departments	892	32.1%
Having users under the Long-term care Act	2,464	88.6%
Having users under medical insurance	2,579	92.7%
Having users of psychiatric home-visit nursing	1,613	58.0%
24 h service delivery	2,453	88.2%
	Av	SD
Number of users under the Long-term care Act	62.1	109.2
Number of users under medical insurance	38.1	51.6
Number of users of psychiatric home-visit nursing	17.0	46.6
Number of nurses	7.8	9.1
Number of nurses eligible for psychiatric care	4.0	4.8
Number of OTs	0.8	1.5
Number of PTs & STs	1.7	2.9
Number of PSWs	0.03	0.26

OT, occupational therapist; PT, physical therapist; ST, speech-language-hearing therapist; PSW, psychiatric social worker.

Characteristics of HVNS providing psychiatric home-visit nursing

The percentage of psychiatric home-visit users varied from 0 to over 80%. The frequency distribution was bimodal, as 1,065 (38.3%) HVNS had no psychiatric users, 1,028 (37.0%) had less than 20% of users, 131 (4.7%) had 20–40% users, 54 (1.9%) had 40–60% users, 29 (1.0%) had 60–80% users and 282 (10.1%) had over 80% users. Based on these proportions, we assumed that the characteristics of HVNS could be divided into four groups and classified HVNS into the following four groups: no users, less than 20% of users, between 20 and 80% of users (214, 7.7%), and more than 80% of users.

Table 2 shows the comparison of characteristics between the HVNS by the percentage of psychiatric home-visit nursing users. HVNS with no psychiatric users were mostly affiliated to medical facilities (55.0%). On the other hand, most HVNS with more than 80% psychiatric users (95.8%) were affiliated with psychiatric medical facilities, and those providing a 24-h service delivery were low (50.7%). The higher the percentage of users with mental disorders, the lower the percentage of users under long-term care insurance, the lower the numbers of physical and speech therapists, and the higher the number of psychiatric social workers.

Perceived difficulties in psychiatric home-visit nursing and need for support

The most common difficulties perceived in psychiatric home-visit nursing were "caring for users/families who refused care" (56.3%), "caring for psychiatric symptoms"

(54.0%), and "assessing psychiatric symptoms" (49.1%) (Figure 2). There were differences in responses to difficulties depending on the percentage of psychiatric users (Table 3). The HVNS with 80% and more users with mental disorders had more difficulties in "caring for users/families that refused care" (70.6%), "caring for users with physical illness" (46.5%), and "cooperating with welfare facilities" (18.9%) than that experienced by the other groups.

On the other hand, the three HVNS groups with no, less than 20%, or 20–80% of psychiatric users reported more difficulties in "caring for psychiatric symptoms" (66.0%, 54.5%, and 52.8%, respectively), "assessing psychiatric symptoms" (56.3%, 52.5%, and 51.9%, respectively), and "building relationships and communication with users" (43.4%, 34.8%, and 41.1%,

Table 2. Comparison of home-visit nursing stations (HVNS) by percentage of psychiatric home-visit nursing users

Characteristics	None (*n* = 988)	Under 20% (*n* = 1,028)	20–80% (*n* = 214)	Over 80% (*n* = 282)	Statistic value	*p* value
	n (%)	*n* (%)	*n* (%)	*n* (%)	$\chi 2$	
Affiliated medical facilities	543 (55.0)	366 (35.4)	65 (30.4)	98 (34.4)	104.42	< 0.001
Affiliated psychiatric department	63 (11.8)	78 (22.0)	42 (65.6)	93 (95.9)	354.31	< 0.001
24 h service delivery	917 (93.0%)	990 (95.9%)	195 (90.7%)	145 (50.7%)	120.8	< 0.001
	Av (SD)	Av (SD)	Av (SD)	Av (SD)	F	
Users under long-term care insurance	60.3 (57.6)	85.4 (154.6)	37.7 (45.7)	2.5 (4.2)	50.77	< 0.001
Users under medical insurance	21.2 (25.5)	34.6 (38.6)	46.9 (45.7)	102.7 (95.1)	244.5	< 0.001
Users of psychiatric home visit nursing	-	6.2 (7.7)	34.2 (39.4)	101.7 (94.9)	717.3	< 0.001
No. of nurses	7.1 (11.2)	8.8 (7.7)	7.4 (5.0)	7.5 (6.3)	6.71	< 0.001
No. of nurses eligible for psychiatric care	1.2 (2.3)	5.8 (4.6)	6.2 (4.4)	7.1 (6.5)	318.8	< 0.001
No. of OTs	0.7 (1.4)	1.0 (1.7)	0.6 (1.5)	0.6 (1.5)	9.55	< 0.001
No. of PTs & STs	1.7 (2.8)	2.3 (3.2)	0.9 (2.3)	0.05 (0.28)	51.57	< 0.001
No. of PSWs	0.004 (0.06)	0.004 (0.06)	0.03 (0.19)	0.19 (0.72)	46.53	< 0.001

degree of freedom = 3. OT, occupational therapist; PT, physical therapist; ST, speech- language-hearing therapist; PSW, psychiatric social worker.

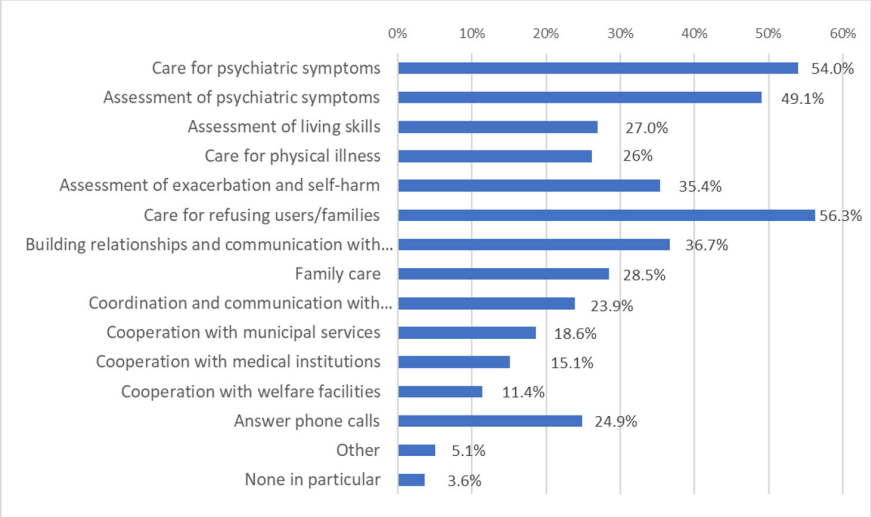

Figure 2. Perceived difficulties in psychiatric home-visit nursing provided by home-visit nursing stations (HVNS). This figure shows the percentage of HVNS who perceived each difficulty.

respectively). "Caring for users/families who refuse care" was relatively high among all the groups (57.4% [no users], 53.9% [less than 20% of users], 66.4% [20–80% of users], and 70.6% [more than 80% of users]).

Figure 3 shows the perceived need for future support. The most needed support was a "community system for collaboration" (67.6%), followed by "consultation with psychiatrists" (59.6%) and "consultation with expert nurses" (45.4%). There were significant differences among the four groups as the HVNS with no psychiatric users reported more need for "consultation from expert nurses" (55.4%, $\chi^2 = 44.6$, df = 3, $p < 0.001$), and the HVNS with more than 80% psychiatric users reported higher need for a "community system for collaboration" (81.8%, $\chi^2 = 43.0$, df = 3, $p < 0.001$).

Discussion

Dissemination of psychiatric home-visit nursing and characteristics of responding HVNS

Psychiatric home-visit nursing provided by HVNS has been increasing in Japan since the establishment of reimbursement in 1994, with the promotion of home care among a super-ageing Japanese population, increase in HVNS, and shift to community care in the psychiatric care policy.

The percentage of HVNS that provided psychiatric home-visit nursing services was 57.4% of the HVNS that responded, a significant increase from the survey conducted within the same association in 2007 (41.0%) (*15*) and approximately the same in a recent study conducted nationwide in 2016 (58.3%) (*11*). HVNS providing psychiatric home-visit nursing were mostly affiliated with psychiatric medical facilities, and 24 h service delivery was less common, which was consistent with the results of previous studies (*11,13*). The percentage of HVNS affiliated with psychiatric medical institutions (10.8%) has increased since the 2007 survey (7.0%) (*15*), indicating that many medical institutions have opened HVNS as they recognise the effectiveness

Table 3. Perceived difficulties in psychiatric home-visit nursing

Items	Percentage psychiatric home-visit nursing users				χ square value	*p* value
	0% *n* = 951	Less than 20% *n* = 1,028	20–80% *n* =214	More than 80% *n* = 282		
Caring for psychiatric symptoms	66.0%	54.5%	52.8%	29.7%	120.8	< 0.001
Assessing psychiatric symptoms	56.3%	52.5%	51.9%	30.8%	58.21	< 0.001
Assessing living skills	27.5%	28.6%	29.4%	25.2%	1.64	0.65
Caring for physical illness	22.1%	24.7%	36.9%	46.5%	79.61	< 0.001
Assessing exacerbation and self-harm	39.2%	36.0%	42.5%	32.5%	7.49	0.06
Caring for refusing users/families	57.4%	53.9%	66.4%	70.6%	31.91	< 0.001
Building relationships and communication with users	43.4%	34.8%	41.1%	31.1%	23.0	< 0.001
Family care	25.7%	30.3%	37.4%	32.9%	15.03	0.002
Coordination and communication with psychiatrists	18.3%	30.7%	24.8%	26.9%	41.00	< 0.001
Cooperation with municipal services	15.2%	21.8%	22.9%	22.4%	17.56	0.001
Cooperation with medical institutions	14.2%	16.9%	15.0%	17.5%	3.58	0.31
Cooperation with welfare facilities	8.0%	14.0%	11.2%	18.9%	31.33	< 0.001

degree of freedom = 3.

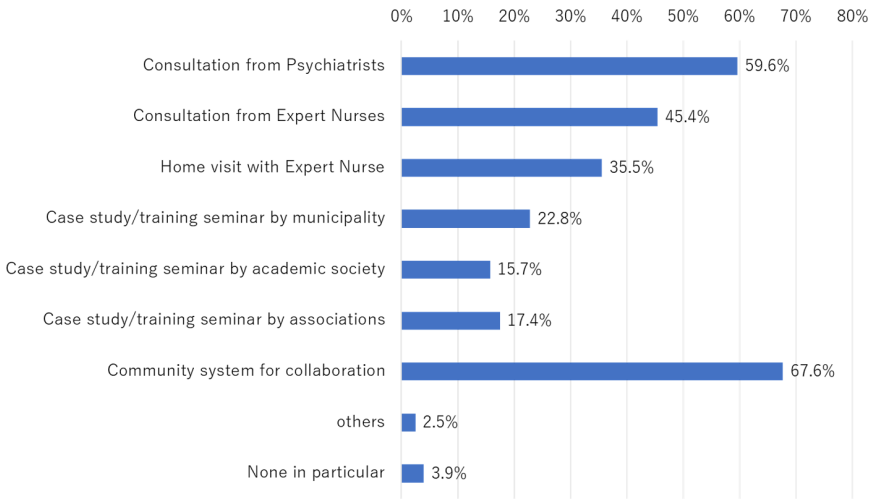

Figure 3. Perceived need for support. This figure shows the percentage of home-visit nursing stations (HVNS) who perceived each need for future support.

of and need for this service. Furthermore, given the rapid growth in the total number of HVNS, there is also a growing number of standalone HVNS providing psychiatric home-visit care.

For psychiatric home-visit nursing, nurses are required to have psychiatric care experience or completed a defined training programme about assessment and care of people with psychiatric disorders (over 20 h). Training programmes have been widely ongoing, and this has supported the implementation of this service. However, many HVNS still reported difficulties in assessing and caring for users with psychiatric symptoms. This may be due to the diversity of users' diagnoses, ageing of the population, and increasing complexity of their needs, including physical complications, social withdrawal (hikikomori), and perinatal mental health (*16*). Since the HVNS with no psychiatric users reported the need for consultation with psychiatrists or expert nurses, developing a consultation system from psychiatric hospitals or expert nurses and ensuring more opportunities for ongoing training would encourage HVNS to provide psychiatric home-visit nursing care.

Perceived difficulties and needs for future support

The HVNS that primarily providing psychiatric home-visits care (> 80% of users), accounted for approximately 10% of the total HVNS. Fukui *et al.* (*13*) classified HVNS into five types based on a cluster analysis; one of the types was "psychiatric-centred" (7.0%) with characteristics of ownership of a medical facility and more users under medical insurance. This result is consistent with our study; however, the novelty of our study was that the surveyed HVNS reported a high degree of difficulty in caring for users with physical illnesses and those who tend to refuse support.

Psychiatric patients with physical illnesses have difficulty understanding and receiving physical treatment, which makes decision-making on their treatment more difficult (*17,18*). Nurses' attitudes and confidence have been reported to be significant predictors of user participation in managing physical conditions (*19,20*). Therefore, specialised training in physical assessment and care (*21*) and a system for consultation about physical care are needed to enhance nurses' confidence, which will lead to better outcomes for users.

The HVNS with fewer psychiatric users reported more difficulties in assessing psychiatric symptoms, caring for users with psychiatric symptoms, and communicating with users. They also reported more need for consultation from expert nurses. These HVNS provide care to various users, including the elderly, those with cancer, and those with neurological diseases and are considered to have limited staff responsiveness to psychiatric home-visit nursing. Therefore, opportunities to learn about the assessment of psychiatric symptoms and care for users with psychiatric symptoms, such as ongoing training, case conferences, and consultations from outside professionals with expertise in psychiatric nursing, are required.

Furthermore, over half of the HVNS reported difficulties with interacting with the families of users who tended to refuse support. People with mental disorders tend to feel anxious and refuse interactions with others because of their psychiatric symptoms, beliefs, or previous experiences. For such users, it is important for home-visit nurses to develop a gradual relationship with them while respecting their wishes and rights to reassure them of their safety (*16*). Katakura *et al.* (*22*) suggested an additional education programme for home-visit nurses to reflect on their preconceptions and have an equal footing with users, which was found to be effective in improving users' outcomes. Thus, educational training and consultations with experts are expected to enhance this scope of nursing care.

Goodson (*23*) reported that partnerships between professional consultants and home-visit staff enhanced their capacity to identify and address the mental health needs of service recipients. Care conferences and consultations are time- and labour-intensive, which may be burdensome for HVNS, especially for the small agencies. For this reason, supporting individual HVNS financially and systematically to attend case conferences and access consultations for service delivery would enhance the abilities and confidence of visiting nurses and improve their quality of care.

Perspective of community assessment and building

In Japan, both medical institutions and HVNS providing psychiatric care are often private facilities, and each HVN station is required to respond to different needs. Developing a network between each HVN station and other service providers, including cooperation with municipalities, is crucial for meeting community needs. Networking and management should be tailored to community characteristics, and the characteristics and strengths of each HVN station should be leveraged to ensure that all HVNS work together. More HVNS are expected to actively participate in discussions on regional medical and health planning, which is also promoted by the community-based integrated care system (*3*).

One limitation of our survey was that the locations of the HVNS were unknown. Medical and welfare resources vary among regions and prefectures; accordingly, the function of each HVN station differs among regions. In urban areas, the number of HVNS is large and dense, whereas in rural areas, the number is limited; therefore, a single HVN station might cover a wider area and have broader functions. Further analysis should consider regional characteristics such as population, medical and welfare resources, and

transportation access.

In the future, health resources and conditions in each region and community are expected to be visualised and shared by residents, service users, and care providers (*24*). Databases such as the Regional Mental Health Resources and Database (ReMHRAD: *https://remhrad.jp/*) (*25*), which publishes the status of local mental health resources online by mapping HVNS, psychiatric institutions, and mental health welfare services, would be utilised. In the era of VUCA (Volatility, Uncertainty, Complexity and Ambiguity), home-visit nursing is also becoming more fluid and complex in moving toward a community-based integrated care system. Thus, it is important to continuously investigate the functions and roles of psychiatric home-visit nursing and share information with citizens, HVNS staff, and other service providers to co-create sustainable community care in the future.

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Conflict of Interest: The authors have no conflicts of interest to disclose.

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