

Original

Community Mental Health Services in Japan: Factors Affecting Visit Frequency

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Abstract

Background & Aims: Community mental health services, particularly home visit services, are essential for facilitating the integration of psychiatric patients into the community. However, the number of home visits by Japanese administrative agencies has not increased past five years. This study investigates the factors influencing number of home visits.

Methods: In June 2022, a survey was conducted among 250 mental healthcare staff working at administrative agencies in the Gunma Prefecture. It sought insights into their work experiences and attitudes related to their roles. Multiple regression analysis was employed to assess the factors impacting number of home visits as the dependent variable.

Results: The study revealed a negative correlation between mental health work experience and both the total number of visits, and the number of visits conducted by respondents within their respective institutions. Positive correlation was observed between the number of home visits and the perception of how much their work contributed to the patient's recovery.

Conclusions: Work experience and psychological factors among mental healthcare staff play a significant role in determining the frequency of home visits. Enhancing the quality of mental health work may be achieved through the development of work systems, staff education, and the promotion of recovery-orientation approach.

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1. Introduction

Since the 1950s, a global trend has been observed, whereby psychiatric care has shifted from inpatient to community-based care. To facilitate this transition, it is necessary to improve the services that support patients' community lives, with each country striving to develop mental healthcare systems.¹ Primary care in communities serves various roles, encompassing patient assessment, medication management, and care coordination.²⁻⁴

Community care can be broadly classified into three areas: healthcare, medical care, and welfare.⁵ In Japan, government agencies primarily provide health services, hospitals deliver medical services, and welfare facilities supply welfare services. Medical and welfare services operate based on agreements and contracts with patients and their families. Thus, challenges arise when intervening with patients who are unwilling or refuse to use such services. Conversely, health services do not require a formal contract; therefore, even if a patient is unwilling to receive treatment or support, community staff can respond from the moment someone around him or her asks for a consultation. Furthermore, these services are available free of charge, have minimal usage requirements, and provide region-specific service contacts. These factors enhance accessibility for users, facilitating ease of access to these services. Therefore, it is important to develop health services that support patients with various conditions in the community.

In Japan, administrative agencies, such as mental health and welfare centers, health centers, and municipalities, are responsible for community mental health

services. These departments offer consultations to patients and their families through various means, including telephone consultations, face-to-face consultations at counters, and home visits. Unlike consultation counters where patients and their families are requested to attend the office, the home visit service involves staff members visiting patients' homes or workplaces to monitor their daily lives, listen to their concerns, provide guidance, and facilitate the utilization of social resources, including medical services. This method allows the staff to understand the patient's actual life and provide services that are better suited to the patient's situation. There have been reports that active community care services through home visits improve patient and family satisfaction and daily living abilities,^{6,7} and that home visit interventions reduce patient rehospitalization rates.⁸ In Japan, the Japanese Outreach Model Project was conducted for three years from 2011. It was reported that visit-based care services by outreach teams composed of community staff contributed to a decrease in hospitalization rates and improvement in Global Assessment of Functioning (GAF).^{9,10}

However, in Japan today, home visit services provided by government agencies are not experiencing expansion. While the number of users of psychiatric home-visit nursing services, as a medical service, increased approximately 3.9-fold from 2007 to 2015.¹¹ Conversely, the number of visits by mental health welfare centers increased only 1.4 times over the same period and has remained relatively stable since 2016. A downward trend in these visits has been observed starting in 2020, a change potentially influenced by external factors such as the onset of the COVID-19 pandemic (Fig. 1, prepared by processing the "Report on Public Health Administration and Services" [Ministry of Health, Labour and Welfare]). Considering this challenge, this study focused on the number of home visits as an activity indicator for community mental health services. Although the number of home visits was positioned as an external indicator of the significance of home visits, it

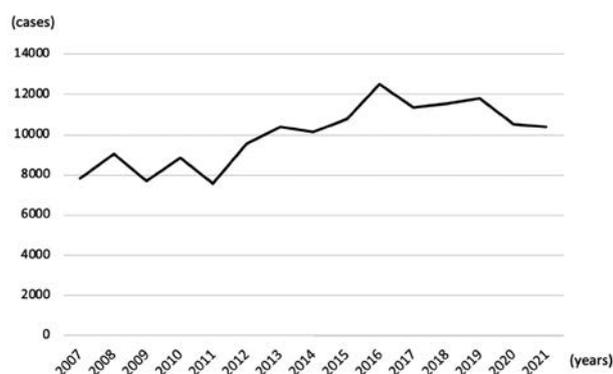


Fig. 1 Number of visits by mental health and welfare centers Changes over time in the number of visits at mental health and welfare centers across Japan from 2007 to 2021. Prepared by processing the "Report on Public Health Administration and Services" (Ministry of Health, Labour and Welfare) for the years 2007-2021.

provides clues for examining community mental health services.

In community mental health services, the decision to conduct home visits and the frequency of such visits partially depend on individual staff members' judgment. Therefore, when considering the factors that affect the number of visits, it is necessary to consider those attributable to the staff. A distinctive feature of government agencies is the periodic transfer of employees across multiple departments, posing challenges in delivering continuous support and accumulating experience. Furthermore, most of the staff is not specialized in the mental health field. This may lead staff to encounter heightened difficulties associated with "ambiguous roles" and "difficulty in establishing relationships with patients".¹² Given this background, it is expected that the number of visits will be influenced by the staff's work experience as an external factor, and by their attitudes toward their work as an internal factor.

While previous studies have examined medical services such as home-visits by nurses, few studies have been conducted on administrative staff. Therefore, this study aimed to investigate the factors affecting the number of home visits through a questionnaire survey administered to administrative staff engaged in community mental health services.

2. Methods

2.1. Participants and Methods

The survey covered all administrative staff engaged in mental health services at 36 administrative agencies (city halls, health centers, mental health and welfare centers, and main consultation support centers) in the Gunma Prefecture as of June 2022. The number of persons in charge was determined by contacting each institution in advance, and 250 persons were targeted. A letter explaining the survey and an anonymous questionnaire about mental health work were mailed to their institutions for the number of respondents, who were asked to answer and return the questionnaire. Responses were obtained from participants who consented to participate in the study.

2.2. Survey Items

Participants were inquired about their personal details: sex, age, profession, and type of institution to which they belong. Regarding work experience as an external factor, respondents were asked about the number of years of experience in mental health work and the type of institution where they worked: prefectural or municipal administrative agencies, welfare offices (with or without mental health work, respectively), mental health and welfare centers, psychiatric medical institutions (private hospitals, public hospitals, clinics, and home-visit nursing stations), and physical medical institutions (acute care hospitals, chronic care hospitals, clinics, and home-visit nursing stations). Participants were also asked about the number of home visits conducted at their current institution in the preceding year, and, among those,

the number they personally handled.

Regarding attitudes toward mental health work, which were identified as internal factors, the following two aspects were assessed: job self-efficacy, which encompasses job worthiness, the perception of fulfilling patients' needs, the perceived contribution of the job to patients' recovery, and the sense of skill improvement through the job; and the sense of the contribution of the work to the patient, which included the respondent's expectations regarding the resolution of the triggering problem, receiving medical care, receiving non-medical support, improvement of the patient's mental illness, and the ability to lead a community-based life without hospitalization, through the support provided by the work. Each item related to the respondents' attitudes was quantified using an 11-point visual analog scale (VAS), ranging from 0 to 10, to indicate how strongly they felt about each item.

2.3. Statistical Analysis

Multiple regression analysis was conducted using the number of visits as the dependent variable to investigate the factors influencing the number of home visits in administrative mental health services. The total number of visits made at their respective institutions was analyzed separately from the number of visits made by the respondents themselves. This separation was implemented to consider that it may also reflect the characteristics of the institutions to which the respondents belonged. The study hypothesized that staff work experience affects the number of home visits. Thirteen work experience-related items were utilized as explanatory variables to test this hypothesis. These items included years of experience in mental health work and whether the staff had worked in various settings such as prefectural and municipal administrative agencies, welfare offices (with or without mental health work, respectively), mental health and welfare center, private psychiatric hospitals, public psychiatric hospitals, acute physical care hospitals, chronic physical care hospitals, and physical clinics. Furthermore, among the respondents' attitudes toward mental health work, "the degree to which they feel that their work contributed to the patient's recovery" and "the degree to which they expect that the patients can live in the community through their work" were also included as explanatory variables. These attitudes seem to be related to the emphasis on the recovery and community life of the patients, so they would be related to the number of visits. Using these 15 items as explanatory variables, a multiple regression analysis was performed on the number of visits by respondents and the total number of visits at their institutions. The missing values were replaced with the mean of each item. Statistical processing was performed using the Python Statsmodel¹³ and SciPy,¹⁴ with a significance level of 5%.

2.4. Ethical considerations

The study was approved by the Gunma University Ethics Committee for Medical Research Involving

Human Subjects (HS2022-057). Survey participants were informed that their participation was voluntary, that they would not suffer any disadvantages from not participating, that the questionnaire would be anonymous, and that individuals would not be identified. Consent was obtained when the participants checked the "I agree" box at the beginning of the questionnaire and returned their answers.

3. Results

3.1. Respondents' Attributes, Work Experience, and Attitudes toward Mental Health Work (Tables 1 and 2)

The survey was conducted from August to November 2022, and 125 (50%) of the 250 eligible administrative employees responded. 17 responses were excluded due to errors in the key data. The final number of valid responses was 108 (43.2% valid response rate).

The respondents' basic data are presented in Table 1. Regarding sex, 88.9% were female, 60% were in their 30s and 50s, and the mean number of months of experience in mental health work was 111.8 (standard deviation [SD]: 126.8). Public health nurses were the most common profession, accounting for 82.4% of the total. Of the respondents, 30.6% had worked in a medical institution, and 4.6% had worked in a psychiatric medical institution. None had experience working in home-visit nursing or psychiatric clinics.

Table 2 shows respondents' attitudes toward mental health work, including the means and SD for "Job self-efficacy" and "Sense of contribution of the work to the patient."

3.2. Factors associated with the number of visits by respondents and the total number of visits at their institutions (Fig. 2 and Table 3)

Multiple regression analysis was conducted using the number of visits by respondents and the total number of visits at their institutions as the dependent variables, and 13 items of respondents' work experience (years of experience in mental health work and whether or not they have worked at each institution) and two items of respondents' attitudes toward mental health work that are expected to be related to their emphasis on community life ("the degree to which they feel that their work contributes to patients' recovery" and "the degree to which they expect that the patients can live in the community through their work") as explanatory variables.

For the number of visits by respondents, the adjusted R-squared was 0.125, and the factors that were found to be associated were: having worked in a municipality (with mental health work) ($\beta = -0.219$), having worked in a welfare office (without mental health work) ($\beta = 0.212$), and the degree to which the respondents felt that their work contributed to patient recovery ($\beta = 0.273$) (Fig. 2a). In contrast, the adjusted R-squared for the number of all visits at their institution was 0.158, and the factors that were found to be associated were years of experience in mental health work ($\beta = -0.258$) and having worked in a chronic physical care hospital ($\beta = -0.249$) (Fig. 2b).

Table 1 Respondents' Attributes and Work Experience (n=108)

Details		Number (%)
Sex	Female	96 (88.9)
	Male	10 (9.3)
	Other / No answer	2 (1.9)
Age	20s	22 (20.4)
	30s	34 (31.5)
	40s	16 (14.8)
	50s	31 (28.7)
	60s and over	5 (4.6)
Profession	Public health nurse	89 (82.4)
	Clerical officer	8 (7.4)
	Mental health social worker	6 (5.6)
	Nurse	1 (0.9)
	Other / No answer	4 (3.7)
Type of institution to which they belong	Municipal administrative agency	69 (63.9)
	Health center	26 (24.1)
	Mental health and welfare center	8 (7.4)
	Other	5 (4.6)
Work experience	Prefecture (with mental health work)	15 (13.9)
	Prefecture (without mental health work)	24 (22.2)
	Municipality (with mental health work)	45 (41.7)
	Municipality (without mental health work)	40 (37)
	Mental health and welfare center	12 (11.1)
	Welfare office (with mental health work)	5 (4.6)
	Welfare office (without mental health work)	9 (8.3)
	Private psychiatric hospital	2 (1.9)
	Public psychiatric hospital	3 (2.8)
	Psychiatric clinic	0 (0)
	Psychiatric home-visit nursing	0 (0)
	Acute physical care hospital	17 (15.7)
Chronic physical care hospital	8 (7.4)	
Physical clinic	3 (2.8)	
Physical home-visit nursing	0 (0)	
	Mean (SD)	Min-Max
Years of experience in mental health work (months)	111.8 (126.8)	0-472

Table 2 Respondents' Attitudes toward Mental Health Work (n=108)

	Mean (SD)
Job self-efficacy	Mean (SD)
Job worthiness	5.8 (1.8)
The perception of fulfilling patients' needs	4.5 (1.4)
The perceived contribution of the job to patients' recovery	4.4 (1.7)
The sense of skill improvement through the job	5.5 (1.7)
The sense of the contribution of the work to the patient	Mean (SD)
The degree to which they expect the resolution of the triggering problem through their work	7.5 (1.7)
The degree to which they expect the patients receive medical care through their work	8.0 (1.7)
The degree to which they expect the patients receive non-medical support through their work	7.9 (1.4)
The degree to which they expect the improvement of the patient's mental illness through their work	7.5 (2.0)
The degree to which they expect the patients can live in the community through their work	7.0 (1.8)
The degree to which they expect the improvement of patients' quality of life through their work	8.0 (1.8)
The degree to which they expect patients' self-actualization through their work	7.5 (1.8)

Table 3 Factors associated with the number of visits by respondents and the total number of visits at their institutions

The number of visits by respondents (R2=0.17, Adjusted R2=0.13)				
	β	SE	T-value	P-value
Having worked in a municipality (with mental health work)	-0.219	0.109	-2.010	0.047*
Having worked in a welfare office (without mental health work)	0.212	0.092	2.308	0.023*
The degree to which the respondents felt that their work contributed to patient recovery	0.273	0.092	2.947	0.004**
The number of all visits at their institution (R2=0.19, Adjusted R2=0.16)				
	β	SE	T-value	P-value
Years of experience in mental health work	-0.258	0.091	-2.834	0.006**
Having worked in a chronic physical care hospital	-0.249	0.091	-2.747	0.007**
Variance inflating factors				
Years of experience in mental health work	2.269			
Having worked in a prefecture (with mental health work)	1.983			
Having worked in a prefecture (without mental health work)	2.009			
Having worked in a municipality (with mental health work)	2.957			
Having worked in a municipality (without mental health work)	2.149			
Having worked in a mental health and welfare center	1.663			
Having worked in a welfare office (with mental health work)	1.161			
Having worked in a welfare office (without mental health work)	1.285			
Having worked in a private psychiatric hospital	1.082			
Having worked in a public psychiatric hospital	1.109			
Having worked in an acute physical care hospital	1.693			
Having worked in a chronic physical care hospital	1.218			
Having worked in a physical clinic	1.350			
The degree to which the respondents felt that their work contributed to patient recovery	8.561			
The degree to which they expect that the patients can live in the community through their work	8.855			

SE, standard error.

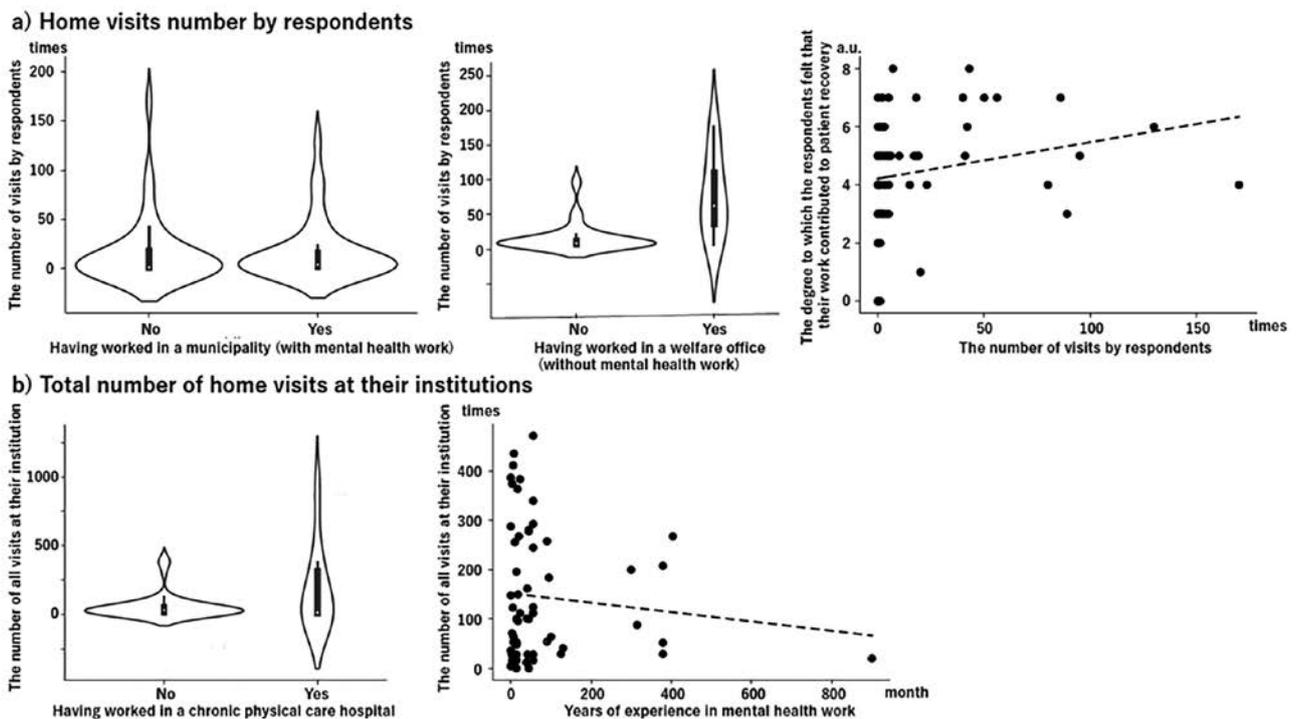


Fig. 2 Multiple Regression Analysis of Factors Influencing Home Visits by respondents and the total number of visits at their institutions. Violin plots are used to represent the distribution of binary categories. The dashed line indicates the regression line.

Furthermore, Spearman's correlation coefficient of 0.52 and $p < 0.001$ were found for the number of visits by respondents and the total number of visits at their institu-

tions, and the correlation was significant after multiple comparison corrections.

4. Discussion

4.1. Respondent's work experience

Work experience had an impact on both the number of visits made by respondents and the total number of visits made at their institutions.

Previous studies have reported that the experience of contact with psychiatric patients and work experience in the psychiatric field influence prejudice and social distance toward patients.^{15,16} Although there is no consistent view on whether contact or work experience increases or decreases negative attitudes, the negative or pessimistic attitudes of psychiatric staff in several studies were equal to or greater than those of the general population,¹⁷⁻¹⁹ which is speculated to be the result of a realistic assessment of the negative effects of psychosis based on their work experiences.^{19,20} Some studies suggest that Japanese psychiatric nurses have a pessimistic view of the community life of patients with schizophrenia and their families,²¹ whereas others suggest that staff attitudes toward psychiatric patients can be propagated within the workplace.²²

Based on these perspectives, the following hypotheses can be formulated concerning the number of visits by respondents: (1) Experience working in municipalities (with mental health work) negatively correlates with the number of visits. While municipalities often serve as familiar and primary consultation windows, they may not always have sufficient staffing of psychiatrists and other mental health professionals, potentially leading to challenges in mental health work. If this impression persists, they may be reluctant to make home visits later in their careers. (2) Experience working in welfare offices (without mental health work) is positively correlated with the number of home visits. In addition to the fact that many welfare offices were originally designed to conduct home visits, it may be easier to feel a sense of accomplishment and be positively inclined to visit when one has experience in welfare work, especially in the field of non-mental health.

Similarly, the following hypotheses can be made about the number of all visits at the institution: (1) Years of experience in mental health work has a negative correlation. The presence of staff with extensive experience in mental health work may limit the number of visits at the institution, as values that prioritize hospitalization over community life and a negative image of difficult-to-manage psychiatric patients spread among the staff. On the other hand, the number of years of experience in mental health work was significantly correlated with age ($r=0.635$, $p<0.001$). Age could be related to the positions held and the levels of activity among mental health workers. For instance, as individuals advance in age, they may also progress in their professional roles, potentially taking on more managerial responsibilities. Such career advancements may consequently result in a decrease in the frequency of home visits. Additionally, it should be considered that as health workers age, the scope of their activities may naturally become more limited. These factors may also

have affected the total number of visits at the institution. (2) Experience working in a chronic physical care hospital has a negative correlation. As many patients in chronic physical care hospitals stay in long-term care beds, the presence of staff accustomed to this may weaken their sense of support for community life at their institution, resulting in a decrease in home visits.

There was a significant correlation between the number of visits by respondents and the total number of visits at their institutions, indicating that individual staff members tend to be more active in making visits when their institutions are active in making visits. It was not possible to determine a causal relationship between the two from this survey, and it is possible that they influence each other in both directions. Considering the factors that influence the number of visits by respondents and the total number of visits at their institutions, it can be inferred that the former, which includes two items about the workplace experienced by the respondents, is largely due to direct personal experiences of success and failure. Conversely, the latter, which includes a comprehensive item about the number of years of experience in mental health work, may be assumed to be an element of attitudes fostered within individuals that are propagated among staff members. To bolster this inference, it might be possible to examine the variation in the number of individual visits at each institution and point to an element of direct individual experience if the variation is large, and attitudes propagated within the organization if the variation is small. However, the survey did not ask for the name of the institution to which the respondent belonged; therefore, it was not possible to confirm this.

Overall, the results of this study demonstrated a negative correlation between the experience of mental health work and the number of home visits. Although it would be natural to expect experienced staff in such a specialized field to be more active, this finding showed the contrary. On the other hand, it could be argued that more experienced staff are capable of gathering more comprehensive information and implementing more effective interventions within a single visit. Consequently, a lower frequency of visits does not necessarily indicate a lower quality of care. In fact, staff with more experience are likely to possess advanced skills and knowledge, enabling them to make the most out of each visit. Therefore, the observed negative correlation between the experience of mental health work and the number of home visits may not inherently signify a decline in the quality of mental health services provided. Even so, it has been indicated in some studies that positive staff attitudes are fostered through positive contact experiences recognizing the patient's healthy aspects and accepting the patient.²³ Therefore, addressing this trend might be achieved by transforming the patient contact experience in mental health work into a positive one. Specifically, it may be useful to have a system that can work on a variety of cases, including patients in relatively good condition, or to work on cases cooperatively with staff members who already have a positive attitude. Further studies are required to determine what is needed

to develop mental health work experience into a positive attitude toward home visits.

4.2. Psychological factors of the respondents

For the psychological factors of the respondents, two explanatory variables were selected: “the degree to which they feel that their work contributes to patients’ recovery” and “the degree to which they expect the patients can live in the community through their work.” Recovery orientation, a concept that emphasizes a psychosocial approach that respects the patient’s self-actualization and self-determination rather than merely alleviating symptoms, has recently become an important keyword in the psychiatric field.²⁴ This concept is highly compatible with the community mental health services that support patients’ community lives. Studies have shown that knowledge of recovery reduces psychiatric staff prejudice,²⁵ being recovery-oriented increases the sense of achievement and job satisfaction of psychiatric staff,^{26,27} and psychiatric staff’s experience in recovery-oriented practices enhances their self-efficacy.²⁸ Therefore, it was predicted that the psychiatric staff’s reduction of prejudice toward patients, recovery orientation, and increase in job satisfaction and self-efficacy would be interrelated and that these factors would positively affect the number of visits.

As a result, “the degree to which respondents feel that their work contributes to patients’ recovery” was positively correlated with the number of visits made by respondents. This result may indicate that respondents with a higher frequency of visits tend to be more proactive in their work and have a stronger sense of contributing to patient recovery. Alternatively, this could indicate that the more strongly the respondents felt that they were contributing to patients’ recovery, the greater their confidence and enthusiasm in their work, leading to a rise in the number of visits.

Conversely, “the degree to which they expect that the patients can live in the community through their work,” which was similarly predicted to be positively correlated with the number of visits, was not significantly associated with neither the number of all visits at the respondents’ institution or the number of visits by the respondents. This result suggests that the number of visits is also affected by the different content that staff members emphasize in their work. In other words, the attitude of the staff may contribute to an increase in the number of visits if the support is focused on the individual patient’s recovery rather than on maintaining community life.

Given these findings, it’s crucial to establish a work system where staff genuinely feel that they contribute to patient recovery. For example, staff education on recovery and the introduction of recovery-oriented practice programs would be useful.

4.3. Limitation

This study used the number of visits as an indicator of community mental health service activities; however, this is positioned as an external indicator and does not

directly reflect the quality of services. The method employed was a questionnaire survey targeting mental health service providers, which did not consider the subjective satisfaction or evaluation from service users. Therefore, a limitation exists that we were unable to examine indicators other than the number of visits, such as direct indicators from the user’s perspective on the quality of services. The number of visits was self-reported by the respondents and may have differed from the actual number of visits.

One limitation of this study is the absence of consideration for the severity of patients’ mental health conditions, as indicated by their disability ratings. Future research should consider this variable, as it could offer significant insights into the frequency of home visits. Specifically, it is plausible that care providers treating patients with more severe conditions would naturally conduct home visits more frequently.

Given that few respondents had experience working in medical institutions, particularly psychiatric institutions, and no respondents had experience in home-visit nursing services, which are expected to have affinities with home visits provided by administrative agencies, different results could be obtained if the survey were conducted on a population with these experiences. Therefore, the results may have been limited to a subset of the sample. Also, the sample size of this study is 108 participants, and may lack statistical power. This should be noted in the interpretation of the results.

Furthermore, there were limitations in that it was not possible to clearly identify cause-and-effect relationships between the number of visits by respondents and the number of all visits at the respondents’ institutions, nor between the psychological factors of respondents and the number of visits, and it was not possible to analyze the different and detailed factors affecting each of these.

In future, qualitative interviews with mental health workers and surveys of community mental health service users should be conducted to clarify the elements needed to revitalize mental health work and improve the quality of services.

5. Conclusions

This study revealed that both work experience and psychological factors among mental health workers impacted the frequency of home visits. While years of experience in mental health work decreased the number of visits, staff who felt that they were contributing to patients’ recovery showed an increase in the number of visits. These findings suggest the importance of developing work systems and staff education, as well as the possibility that promoting a recovery orientation will enhance the quality of mental health work. They provide clues for considering the mental health work systems of administrative agencies.

6. Disclosure Statement

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