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Statistical Compilation

Impact of COVID-19 Pandemic on Clinical, Educational, and Research Activities of University Psychiatry Departments: Results of Two Surveys during the First and the Second Waves in the Japanese Association of University Psychiatry Department Directors

The Japanese Association of University Psychiatry Department Directors
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Abstract

Impact of COVID-19 pandemic on clinical, educational, and research activities of university psychiatry departments were surveyed during the first and the second waves, May and August 2020 respectively, in the Japanese Association of University Psychiatry Department Directors. Responses from 64 (78%) and 38 (46%) universities during the first and second waves out of all the 82 university psychiatry department in Japan demonstrated broad and various influences on clinical practices including conversion of psychiatry wards to COVID-19 wards in 6 universities, profound impact on psychiatry education for under- and postgraduates students, interns, and psychiatry residents, and severe difficulties of intimate communication with students, interns, and department members. Their details were clarified in enormous concrete descriptions.

Keywords: corona virus, COVID-19, university, psychiatry department, hospital, education, research

Introduction- Aim -

It is important to keep a record of the impact of the novel coronavirus (COVID-19) pandemic of 2020 on

various fields as basic data when considering countermeasures against not only novel coronavirus but also other infectious diseases in the future. Since the Japanese Association of University Psychiatry Department Directors is an organization composed of chief professors of psychiatry departments at 82 universities nationwide (organization and position names vary by university), the experience of the association can be summarized as covering the impact on psychiatric care in university hospitals and psychiatric education in medical schools in Japan. We report the results of a questionnaire survey we conducted on the impact of the COVID-19 pandemic on the practice, education, research, and administration of university psychiatry departments. The results of the survey will complement those reported on the experiences of individual universities 1)2).

I. Methods

On May 1, 2020, the latter half of the first wave of COVID-19 in Japan, and on August 13, 2020, the latter half of the second wave, we distributed questionnaires to psychiatry departments at 82 universities nationwide via the mailing list of the Japanese Association of University Psychiatry Department Directors and requested responses. The questionnaire

was designed to offer two-alternative-answer questions, with respondents choosing either "yes" or "no" to reduce the burden of responding.

The questionnaire for the first wave consisted of 20 items (12 items for medical care, 3 items for community medicine, 4 items for education, and 1 item for research) and free answers. Since this was the first time anyone had experienced a declared state of emergency, the number of questions was kept to a minimum in order to minimize the burden for answering as much as possible. The questionnaire for the second wave consisted of 42 items (23 items for medical care, 6 items for community medicine, 10 items for education, 2 items for research, and 1 item for operating classes) and free-response items, with additional items added to the items in the first wave questionnaire, because the situation had stabilized. Due to the timing of the questionnaire, the responses reflected the impacts of the first and second waves, respectively.

Based on the opinion of the Clinical Investigation and Research Unit, Gunma University Hospital, it was judged that research ethics review was not necessary for medical research involving human subjects, and the submission of voluntary responses to the questionnaire was regarded as consent to conduct the questionnaire

survey. The results of this study were presented after obtaining the consent of the Japanese Association of University Psychiatry Department Directors, and information that could be used to identify the names of universities was removed from the answers to free-response questions.

For brevity, the term "corona" is used for the novel coronavirus and its infection (COVID-19).

II. Results

The first-wave questionnaire received responses from 64 universities (response rate: 78%) by May 8, seven days after distribution, and the second-wave questionnaire received responses from 38 universities (response rate: 46%) by August 29, 16 days after distribution. Based on the timing of the responses, the responses to the first-wave questionnaire reflect the situation from the beginning of the COVID-19 pandemic to April (Table 1), and the responses to the second wave-questionnaire reflect the situation up to August including that period (Table 2).

The total number of responses to each question may not equal this total number of responses. This is because, in addition to unanswered questions, some universities did not meet the requirements for the question (No ward, new hospital, no day care, etc.). In addition, regarding the item on

community medicine asked about the situation in each prefecture, the overlap of responses in prefectures where multiple universities responded was not controlled. Therefore, the items on community medicine asked about prefectures, but the number of responses was from the perspective of universities. Although free answers in the first and second waves were voluminous and, in some cases, redundant, we judged them to be valuable raw data that conveyed the realities in the field at that point in time. Thus, we have purposely included them in their original text as supplements to the web version of this journal.

Since most of the responses to the second-wave questionnaire reflect the situation up to August, including the period of the first-wave questionnaire, a summary of the results, focusing on the responses to the second wave, is as follows:

For outpatient visits, 34% restricted first visits and 68% reduced first visits. Regarding return visits, 95% of the universities provided telephone care, 82% extended the intervals between visits, and 75% discontinued day care. In terms of hospitalization, 35% of hospitals restricted admissions, 27% zoned new admissions, and 97% restricted outings and overnight stays. The impact on ECT and the response were largely divided, with 45% of the

universities implementing the same measures as adopted prior to the COVID-19 pandemic, and 55% of the universities either stopping ECT or requiring pre-PCR testing. Coronavirus infection prevention measures were implemented in 97% of outpatient and 94% of inpatient settings using each method, but the responses regarding psychological testing and electroencephalography differed markedly. Psychological testing was conducted just as before the COVID-19 pandemic in 32% of the universities, and was discontinued or minimally conducted in 68% of the universities. Electroencephalography was performed in 55% of the universities just as before the COVID-19 pandemic, and 45% of the universities discontinued hyperventilation activation or limited it to the bare minimum necessary.

Psychiatric patients were admitted to COVID-19 wards in 39% of cases, 47% had staff sent to provide COVID-19 treatment and wards, and 83% provided psychological support for COVID-19 patients and treatment staff. Six universities converted their psychiatric wards into COVID-19 wards (including one university that converted it into a waiting room), and six universities were approached to do so (first-wave questionnaire). A total of 55% experienced an outbreak of coronavirus infections at the medical institutions

where they worked outside the university, 39% had their outside employment restricted by the university because of this, and 24% were asked by their outside employers to restrict their outside employment.

At the prefectural level, 38% of respondents had patients with COVID-19 seen in the emergency department, 32% had patients with COVID-19 examined for involuntary admission, and 47% of psychiatric emergency systems had a coronavirus-testing system. Totals of 56% of respondents had psychiatric patients who were admitted to a COVID-19 ward, 70% had an established admission system for psychiatric patients with COVID-19, and 70% had a consultative organization for the treatment system for psychiatric patients with COVID-19.

Regarding education, 59% of the respondents reported that there was a period of suspension of lectures for medical students, and 95% implemented online lectures, which made it difficult to be interactive, raised concerns about motivation to learn, and made examinations difficult. For clinical training, 89% had a period of suspension and 68% conducted online clinical training, with open-ended comments indicating that they felt online clinical training was fundamentally unreasonable. For medical students, 84% of the

universities had campus-access restrictions, 89% had hospital-access restrictions, 55% had infection testing for medical students, and 100% had restrictions on extracurricular activities and movement. The impact on clinical training was observed in 66% of the universities, and the impact on education of medical specialties was observed in 50%.

Regarding research, 32% of the universities had a prohibition period and 61% had restrictions, with various effects, especially on clinical research.

Regarding department management, 71% had online meetings within the psychiatry department, which had a significant impact on communication among staff and interaction with medical students and residents.

III. Discussion

The purpose of this paper was to report on the impact of the first and second waves of the COVID-19 pandemic on the work of university psychiatry departments as real facts and experiences at the respective time-points. The first- and second-wave questionnaire surveys were conducted at very different times of the year, when the infection situation and dissemination of infection-prevention measures such as masks and alcohol were very different. The responses to the second-wave questionnaire included

some information from the first-wave questionnaire, and the response rates (First: 78%; Second: 46%) differed significantly, making comparisons difficult, so both questionnaires are discussed together. Since the impact on typical out- and inpatient care is common to general psychiatric institutions, we will focus on the contents that are unique to university psychiatry departments.

What stood out about psychiatric care was the wide divergence in responses to ECT, psychological testing, and electroencephalography. This may have been due to differences in the infection status by region, differences in the need for ECT, psychological testing, and electroencephalography, and the lack of uniform standards for infection control measures.

In terms of COVID-19 medical treatment, university hospitals were often the main centers for receiving patients with COVID-19 during this period, and it was notable that they were required to play the roles of psychiatry in general hospitals, including admitting psychiatric patients to COVID-19 wards (39%), sending staff to offer COVID-19 care and wards (47%), and providing psychological support for patients with COVID-19 and treatment staff (83%).

The conversion of psychiatric wards to COVID-19 wards, a situation that could

not be expected in normal times, was implemented at 6 universities and 6 other universities were approached about it, accounting for 15% of the 82 medical schools nationwide, including those that did not respond to the survey. The reasons why such conversion was considered necessary included the need to secure COVID-19 wards in university hospitals, the locations of psychiatric wards were deemed suitable for infection prevention, ward structures were deemed suitable for dealing with infectious diseases, and the impact on hospital management was small, in addition to the operation criteria change for conversion of psychiatric beds to general beds in the Medical Law. The universities that actually converted psychiatric wards to COVID-19 wards faced issues such as how to supplement the functions of the university hospitals' psychiatric wards during the conversion period and what psychiatric staff would do during that period, in addition to arranging for the transfer of inpatients. Furthermore, the timing of the conversion of wards once converted to COVID-19 wards back to psychiatric wards was a difficult decision related to the subsequent course of the infection situation. Care must be taken to ensure that such ward conversions do not lead to prejudice or disregard for psychiatric patients or care.

One of the roles of doctors working at

university hospitals is to complement community health care, but the outbreak of coronavirus infections in the medical institutions where they worked outside the university (55%) resulted in restrictions of their work by the universities (39%) or by the medical institutions (24%). This restriction of support for institutions that needed to respond to COVID-19 in addition to their usual psychiatric services had an impact on community psychiatric care. University involvement was also an issue when dealing with cases of COVID-19 infection within the psychiatric emergency system or on examination for involuntary admission.

Restrictions on student access to campuses and online lectures were common to many universities, but medical schools were also required to deal with clinical training. In the survey, 68% of the universities had online clinical training, but the open-ended comments indicated that there were fundamental problems with such training. As is common in every department, but especially in psychiatry, due to the consideration for personal information, it became clear that the difficulties of not being able to introduce information about actual patients, and therefore not being able to get correct recognition on mental illness through direct contact with patients, and not being able to experience two-way

communication became marked.

University psychiatry departments have a role to play in training the next generation of psychiatrists. The results of the survey showed that not only was there a significant impact on clinical training (66%) and education of medical residents (50%), but also a long-term impact on the training of successors due to the difficulty in interacting with medical students and residents, which is a prerequisite for the training of psychiatrists.

Among the effects of the COVID-19 pandemic on university departments of psychiatry identified in the present survey, the impacts on the treatment of patients can be enhanced by exchanging information and deepening cooperation with the Japanese Society of General Hospital Psychiatry, with which we share a common role in clinical practice. The education of medical students and training of their successors are common issues that each university faces, and we hope to improve the level of psychiatry nationwide by further promoting the mutual cooperation that has been nurtured by the Japanese Association of University Psychiatry Department Directors to date, including the sharing of teaching materials and innovations for this purpose. University psychiatry departments often play a unique role in community psychiatry, and we hope that the COVID-19

pandemic will provide an opportunity to reaffirm our role in community psychiatry based on this experience.

Conclusion

In order to clarify the impact of the 2020 COVID-19 pandemic on the medical care, education, research, and management of university psychiatry departments nationwide, a survey was conducted by the Japanese Association of University Psychiatry Department Directors at 82 university psychiatry departments for the first wave in May and the second wave in August. Responses were received from 64 (78%) and 38 (46%) universities, respectively, indicating that various activities were affected, including a serious impact as the conversion of psychiatric wards into COVID-19 wards in medical care, marked difficulties in education, especially in conducting clinical training for medical students and educating residents and medical majors, and difficulties in working with medical students and residents who will become successors in the future.

There were no conflicts of interest in conducting this survey or writing the paper, and no costs were incurred for its implementation.

References

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Table 1: Results of first-wave questionnaire item tabulation

	Yes	No
1. Medical care		
1.1.1. Outpatient		
1.1.1.1. First visit		
1.1.1.1.1. Restriction	24 (37%)	40 (63%)
1.1.1.1.2. Reduction	54 (84%)	10 (16%)
1.1.1.2. Follow-up visit		
1.1.1.2.1. Telephone consultations	62 (97%)	2 (3%)
1.1.1.2.2. Extended intervals between visits	62 (97%)	2 (3%)
1.1.1.2.3. Discontinuation of daycare	24 (77%)	7 (23%)
1.2. Hospitalization		
1.2.1. Restricted admission	37 (63%)	22 (37%)
1.2.2. Ward zoning	20 (33%)	41 (67%)
1.2.3. Impact on ECT	38 (61%)	24 (39%)
1.3. System		
1.3.1. Admission of COVID-19 patients to psychiatric wards		

	5 (8%)	56 (92%)
1.3.2. Nosocomial infections on psychiatric wards	1 (2%)	62 (98%)
1.3.3. Staffing of COVID-19 operations and wards	32 (51%)	31 (49%)
1.3.4. Conversion of psychiatric wards into COVID-19 wards*		
	6 (11%)	51 (89%)
	(Only consultation, no implementation 6)	
2. Community medicine (in each prefecture)		
2.1. COVID-19 patients in psychiatry	22 (36%)	39 (64%)
2.2. COVID-19 patients with involuntary admission	11 (19%)	46 (81%)
2.3. COVID-19 review system in psychiatric emergency departments		
	41 (68%)	19 (32%)
3. Education		
3.1. Lectures		
3.1.1. Discontinuation period	56 (90%)	6 (10%)
3.1.2. Online implementation	62 (97%)	2 (3%)
3.2. Practical training		
3.2.1. Discontinuation period	59 (94%)	4 (6%)
3.2.2. Online implementation	42 (67%)	21 (33%)
4. Research-prohibited period	33 (52%)	31 (48%)

Percentage is the rate of "yes" and "no" responses and does not include non-responses.

* One of the "yes" answers included use of the COVID-19 ward as a break or conference room for staff.

Table 2 Results of second-wave questionnaire item tabulation

	Yes	No
1.1. Medical care		
1.1.1. Outpatient		
1.1.1.1. First visit		
1.1.1.1.1. Restriction	13 (34%)	25 (66%)
1.1.1.1.2. Decrease/cancellation	25 (68%)	12 (32%)
1.1.2. Follow-up visit		

1.1.2.1. Telephone consultations	36 (95%)	2 (5%)
1.1.2.2. Extended intervals between visits	31 (82%)	7 (18%)
1.1.2.3. Discontinuation of day care	12 (75%)	4 (25%)
		(no daycare 22%)
1.2. Hospitalization (no ward 1)		
1.2.1. Restricted admission	13 (35%)	24 (65%)
1.2.2. New inpatient zoning	10 (27%)	27 (73%)
1.2.3. Restrictions on outings and overnight stays	35 (97%)	1 (3%)
1.2.4. Zoning after going out/staying out	1 (3%)	35 (97%)
1.2.5. Impact on ECT	17 (55%)	14 (45%)
		(without ECT 1)
1.3. Preventive measures against COVID-19		
1.3.1. Outpatient	37 (97%)	1 (3%)
1.3.2. Hospitalization	34 (94%)	2 (6%)
		(no ward 1)
1.3.3. Psychological testing	25 (68%)	12 (32%)
1.3.4. Electroencephalography	17 (45%)	21 (55%)
1.4. Treatment for COVID-19		
1.4.1. Admission of COVID-19 patients to psychiatric wards	1 (3%)	36 (97%)
		(no ward 1)
1.4.2. Admission of psychiatric patients to COVID-19 wards	14 (39%)	22 (61%)
1.4.3. Nosocomial infections on psychiatric wards	1	0
		(no psychiatric admissions 37)
1.4.4. Staffing to provide COVID-19 care and wards	17 (47%)	19 (53%)
1.4.5. Psychological support for COVID-19 patients and medical staff	30 (83%)	6 (17%)
1.4.6. Conversion of psychiatric wards into COVID-19 wards	1 (3%)	34 (97%)
		(Only consultation, no implementation 2)
1.5. Outside work		
1.5.1. Restriction of outside work (from the university)	15 (39%)	23 (61%)
1.5.2. Restrictions on outside work (from outside employers)	9 (24%)	28 (76%)

1.5.3. COVID-19 outbreaks at the outside workplace	21 (55%)	17 (45%)
2. Community medicine system (at the level of each prefecture)		
2.1. COVID-19 infection of patients visiting the emergency room	13 (38%)	21 (62%)
2.2. COVID-19 infection of patients being seen for involuntary admission	10 (32%)	21 (68%)
	(unknown 2)	
2.3. Testing system for COVID-19 in psychiatric emergency system	14 (47%)	16 (53%)
	(unknown 3)	
2.4. Hospitalization of psychiatric patients on COVID-19 wards	19 (56%)	15 (44%)
	(unknown 1)	
2.5. Establishment of hospitalization system for psychiatric patients with COVID-19	23 (70%)	10 (30%)
2.6. Consultative organization of a medical care system for psychiatric patients with COVID-19	23 (70%)	10 (30%)
	(unknown 1)	
3. Education		
3.1. Lectures		
3.1.1. Discontinuation period	22 (59%)	15 (41%)
3.1.2. Online implementation	35 (95%)	2 (5%)
3.2. Clinical practice		
3.2.1. Discontinuation period	34 (89%)	4 (11%)
3.2.2. Online implementation	26 (68%)	12 (32%)
3.3. Medical student behavior		
3.3.1. Restriction of campus access	32 (84%)	6 (16%)
3.3.2. Hospital entry restrictions	34 (89%)	4 (11%)
3.3.3. Infection testing system for medical students	21 (55%)	17 (45%)
3.3.4. Restrictions on extracurricular activities and movement	38 (100%)	0 (0%)
3.4. Impact on clinical training	25 (66%)	13 (34%)
3.5. Impact on education of medical residents	19 (50%)	19 (50%)
4. Research		
4.1. Prohibited period	12 (32%)	26 (68%)
4.2. Restriction	23 (61%)	15 (39%)

5. Operating classes

5.1. Online meetings within psychiatry department 27 (71%) 11 (29%)

Percentage is the rate of "yes" and "no" responses and does not include non-responses.