Symposium

The 6th Congress of Asian College of Neuropsychopharmacology
— Neuropsychopharmacology to the next generation: New wave from Asia —

Part 1 Community Care and Global Mental Health: Innovative Psychiatric Pharmacotherapy Strategies in Asia*1

Invited lecturers

Tae-Yeon Hwang (Division of Mental Health Service and Planning National Center for Mental Health (NCMH), Ministry of Health and Welfare, Korea)
Tiur Sihombing (Duren Sawit Mental Hospital Jakarta, Indonesia)
Yen Kuang Yang (Department of Psychiatry, National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Taiwan)

Discussants

Frederick Jacobsen (The George Washington University School of Medicine, US)
Lillian Comas-Díaz (The George Washington University School of Medicine, US)

Organizers/Chairpersons

Chieko Kurihara[1] (Bioethics Policy Study Group, Japan)
Kazutaka Shimoda (Department of Psychiatry, Dokkyo Medical University, Japan)

(Friday, October 11, 2019, Fukuoka International Congress Center, Japan)

Part 2 Open Lab Meeting

Invited lecturers in the Part 2

Comentators

Chieko Kurihara
Takeo Saio[2] (Department of Internal Medicine and Psychiatry, Fuji Toranomon Orthopedic Hospital, Japan)

(Saturday, October 12, 2019, Fukuoka Sunpalace Hotel & Hall, Japan)

Part 3 Additional message on COVID-19 and mental health

Messages from the above invited lecturers and Takeo Saio

(By e-mail, December 2020; January 2021)

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*1 This is a record of a symposium and succeeding meeting held in the 6th Congress of Asian College of Neuropsychopharmacology — Neuropsychopharmacology to the next generation: New wave from Asia — , October 11-13, 2019, in Fukuoka, Japan, chaired by Kazutaka Ikeda, Tokyo Metropolitan Institute of Medical Science, vice chaired by Kazutaka Shimoda, Dokkyo Medical University, and Toshiyuki Someya, Niigata University; Alliance Head Hiroyuki Uchida, Keio University with Secretary by Shinya Kasai, Tokyo Metropolitan Institute of Medical Science.

1 Specially-appointed Professor, Kanagawa Dental University

2 K&S Consulting Office for Occupational Mental Health

Abstract

This is the transcription of an international meeting in the 6th Congress of Asian College of Neuropsychopharmacology (AsCNP), held from 11 to 13, October, 2019, in Fukuoka, Japan, and additional message from invited lecturers on COVID-19 and mental health, provided in December 2020 and January 2021.

Part 1 is a symposium entitled “Community Care and Global Mental Health: Innovative Psychiatric Pharmacotherapy Strategies in Asia”, held on 11 October, with three invited specialists of community care of mental health in Korea, Indonesia and Taiwan; two discussants from the United States; and chaired by a psychiatrist and a bioethicist of Japanese.

Part 2 is “Open Lab Meeting”, convened next day to extend the discussion in the Part 1, especially focusing on the issue of human rights in the context of community care, with an additional Japanese psychiatrist.

Part 3 is additional messages on COVID-19 and mental health, provided in December 2020 and January 2021 from the invited lecturers of the above meetings.

We believe that this transcription contributes to global efforts to improve and promote mental health with effective implementation of already established norms to protect human rights of people with mental illness.

Key words

community care, human rights, mental health, global health, Asia

Rinsho Hyoka（*Clinical Evaluation*）. 2021；48 Suppl XXXVII：73-146.

Part 1 Community Care and Global Mental Health: Innovative Psychiatric Pharmacotherapy Strategies in Asia

Opening remarks

Chieko Kurihara
Bioethics Policy Study Group, Japan

Thank everyone for your participation. As an opening remarks, I will talk about the objective of this session.

Mental, neurological and substance use disorders have been revealed to contribute to the Global Burden of Disease. To overcome this situation, cost-effective community care respecting human rights in various cultural contexts needs to be achieved. Evidence-based interventions, including psychiatric pharmacotherapy along with community engagement and capacity development are needed. Especially in the recent years, in the era of global drug development and worldwide big data analysis, both medical professionals and patients are drastically moving around the world due to rapid development of information technology facilitating global communications, as well as the growth of an easy and inexpensive transportation means.

In such circumstances, some people are seeking better working places or better healthcare services and other people are evacuating from conflict or disaster situations. Considering such situations, the need is to seek evolutional drug development strategies, along with community care, with a perspective of psychiatric pharmacotherapy to achieve Global Mental Health.

In this symposium, speakers from Asian countries will introduce their experience in their activities to facilitate community care, towards the achievement of Global Mental Health.

Kazutaka Shimoda
Department of Psychiatry, Dokkyo Medical University, Japan

I am very much pleased to invite three speakers, from Asia, South Korea; Indonesia; and Taiwan. We wish to discuss pharmacotherapy in the community care setting, based on Asian view and having global perspective.

The first speaker is Professor Hwang from the National Center for Mental Health, Korea.

Integrating psychopharmacology and psychosocial rehabilitation for recovery of SPMI

Tae-Yeon Hwang
Division of Mental Health Service and Planning National Center for Mental Health (NCMH) Ministry of Health and Welfare, Korea

1. Introduction: Evolution and value shift

It is a great pleasure to speak about the psychopharmacology and psychosocial rehabilitation situation of Korea. The presentation does not have any conflict of interest.

As a clinician, many psychiatrists focus on the patient, the symptom or the diagnosis or the deficit under the medical treatment model. But in terms of the rehabilitation model, the definition and value are totally different from the medical treatment model. One should think about the synergistic effect between the medical treatment and rehabilitation. This is the definition of psychosocial rehabilitation (Fig. 1).

Although the purpose of psychosocial intervention is to decrease the symptom and reduce the hospitalization days, the main goal is to improve the patient functioning and their quality of life in the community. For psychosocial rehabilitation, one should develop the patient skill and the management of their own lives.

The WHO has already mentioned about the objectives of the psychosocial rehabilitation. First is symptom reduction with novel antipsychotics and other medications without any side effect for the patient. Second is to reduce long-term hospitalization to reduce the iatrogeny and other skill improvement. Family and social support are also objectives of the psychosocial rehabilitation.

These are the closely coordinated intermediate objectives of psychosocial rehabilitation. In psychosocial rehabilitation, the psychological well-being of the chronic mentally-ill patient is very important. The clinician/psychiatrist should try to reduce the adverse effect of treatment. The

Fig. 1　Evolution of medical treatment model to rehabilitation model

* Redefinition and Value Shifts	
Pathology	↔ Disability
Symptoms	↔ Functions
Therapy	↔ Training and Teaching
Syndromal Diagnosis	↔ Functional Assessment
Hospitalization	↔ Community Support
Deficits	↔ Strengths
Prescribing for Patient	↔ Collaborating with Patient
General Treatment Planning	↔ Individualized Plans

Anthony, Cohen, and Farkas.1982

family and the caregivers' support is very important for rehabilitation and recovery of the chronic mentally-ill patients. The consumers should be empowered for their recovery.

2. Schizophrenia treatment

These are the changes of the treatment goal for schizophrenic patients since 1960s. When chlorpromazine was introduced to manage the manic symptom or psychotic symptom, only the positive psychotic symptom reduction was thought about. As time went by, the treatment goal was changed to reduce the psychological and cognitive deficit. The subjective wellbeing of the mentally-ill patient is now very important. The function of the patients and the recovery should be thought about (Fig. 2).

The typical antipsychotics are chlorpromazine or haloperidol that contributed much towards deinstitutionalization in the 1960s. Following that, many atypical novel antipsychotics were developed for schizophrenia or psychotic disorder patients. In the 21st century, the normalization of psychotic patients is possible. This is the main question that many psychiatrists ask.

Regarding schizophrenia, we should think about three areas. There are illness-related events, such as symptoms and cognitive deficit. In the medication-related area, there are many side effects like extrapyramidal symptoms and tardive dyskinesia. Due of these side effects, the chronic mentally-ill patients show low adherence or compliance to medication. After cessation of medication, one can see many homeless patients on the street and many criminals or mentally-ill patients in the society. There are many stigmas attached to the chronic mentally-ill patients.

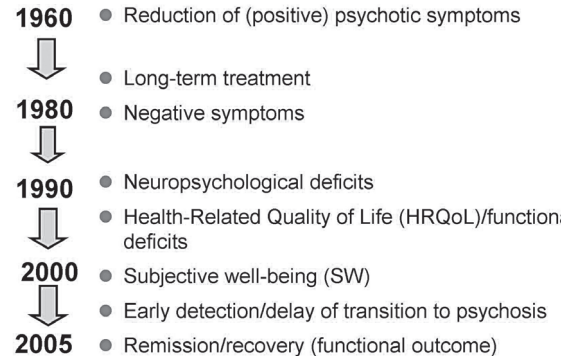
My study titled "Benzodiazepine use among patients with schizophrenia in Korea" analyzed National Health Insurance data. The number one benzodiazepine for schizophrenia was lorazepam, diazepam and clonazepam. A recent increase in the use of zolpidem for chronic schizophrenic patients can be seen.

Why benzodiazepine use is so popular among schizophrenic patients needs to be studied. The data from the University Hospital shows that benzodiazepine use is just 8%. In Korea, there are many large mental hospitals with over 500 beds. There are many prescriptions of benzodiazepine in mental hospitals. In the private psychiatric clinics, the psychiatrists prescribed many benzodiazepines for schizophrenic patients.

When we look at the number of antipsychotics among benzodiazepine users, we can see that many schizophrenic patients received more than two or even more than three antipsychotics. The polypharmacies are very popular among the mental hospitals in Korea right now. Because of this polypharmacy, patients are suffering from many adverse events or side effects. Benzodiazepine was prescribed to deal with adverse events or side effects of antipsychotics.

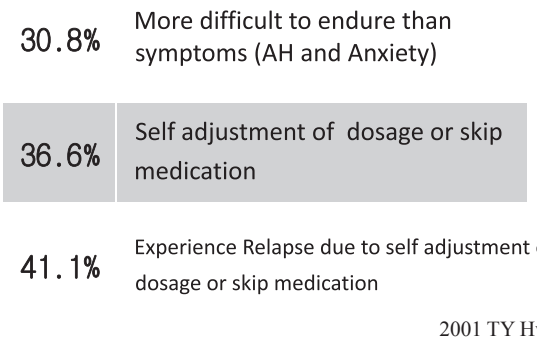
In early 2001, a survey was done

Fig. 2 Change of treatment goals in schizophrenia over past decades



to see how patients feel with their side effects. More than 30% patients stated that it is more difficult to endure a side effect than the auditory hallucination or anxiety; 37% stated that they did self-adjustment of antipsychotic medication dosage and/or skipped the medication maybe 3 days per week or once per week. More than 40% patients experienced relapse due to self-adjustment of antipsychotic medication dosage or skipped medication (Fig. 3).

Fig. 3　Patients coping to side effects



Schizophrenia relapse has severe long-term consequences or sequelae. Deterioration of symptoms of schizophrenic patients can be seen. More treatment resistance cases of schizophrenia are visible. As time goes by, cognitive or neuropsychological function of schizophrenic patients is decreasing. For the patient, it is also very hard to recover their functionality to their original level.

3. Psychoeducational program

In terms of the factors that influence the patient's compliance or adherence to the medication, there are four factors. With respect to the treatment-related factor, there are many contributing factors such as side effects. Dosing pattern or the polypharmacy contributes to low adherence to medication. Physician-related factors are also important. The doctor-patient relationship is very important. The provision of information about the antipsychotic side effect is very important to improve the adherence to antipsychotic medication (Fig. 4).

The WHO has already mentioned the strategy on how to improve the compliance with the treatment. Firstly, there should be a trusting physician-patient relationship. With a solid doctor-patient relationship, the patient can come to the clinic and maintain their medication. The WHO recommends that the doctors should spend more time and energy on patient education in terms of the goal of antipsychotic or psychiatric treatments. For better compliance, there should be a negotiated treatment plan between the physicians and the patients. If the patients are responsible for their decision making, they will take more medication and prevent their future relapse.

In Korea, the psychoeducational program has already been translated. It was developed around the mid-90s by Eli Lilly and Company in the US, named as the Team Care Solutions. I had bought this package and after returning back to Korea, I translated it with the support of Lilly Korea Ltd.

There is the Patient Empowerment Programme for Schizophrenia that was developed by European Union, EUFAMI, and supported by Sanofi Aventis, the pharmaceutical company. It was very influential for the empowerment of schizophrenic patients in Korea.

Family psychoeducation is also very important because in Korea, family members are the primary carer for schizophrenic and other mentally-ill patients. The concept of disease disorder or their attitude towards the medication is very important for medication compliance (Table 1).

Fig. 4 Factors that influence patient adherence to medication

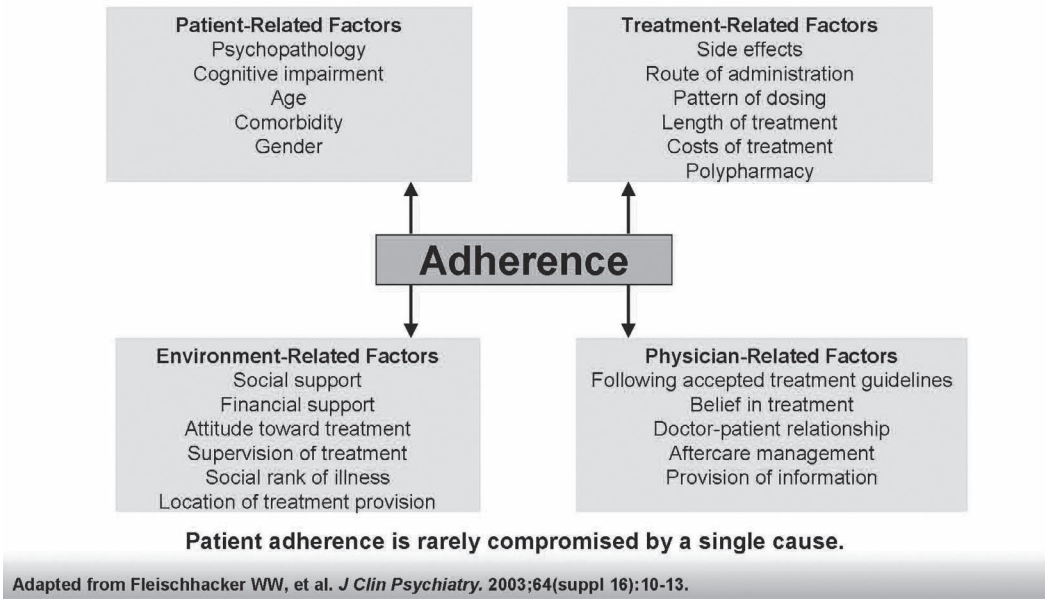


Table 1 Effectiveness of family psychoeducation

- Extended community stay
- Lower utilization of in-hospital services
- Prolonged non-psychotic time
- Increased stability & predictability of family environment
- Reduced anxiety
- Better self-confidence
- Better understanding of symptom and illness
- Positive regard to the potentials of the patient

Anderson, et al., 1986; Falloon, et al., 1984; McFarlane, 1983.

4. Consumer-driven process

In Asia, since 2004, the Family Link Asia Program was developed with the support of Janssen. Many countries like Hong Kong, Malaysia, the Philippines and other Asian countries are involved in the Family Link Asia Educational Program.

During the last 10 years, many Family Link lecturers were developed in Korea. More than 200 family lecturers now give information and share their experience with the first episode of schizophrenic families or other mental disorders (Fig. 5).

The recovery model in the care of severe and persistent mentally-ill patients shows that (SPMI) can rede-

Fig. 5　Family Link lecturers during 2009-2018

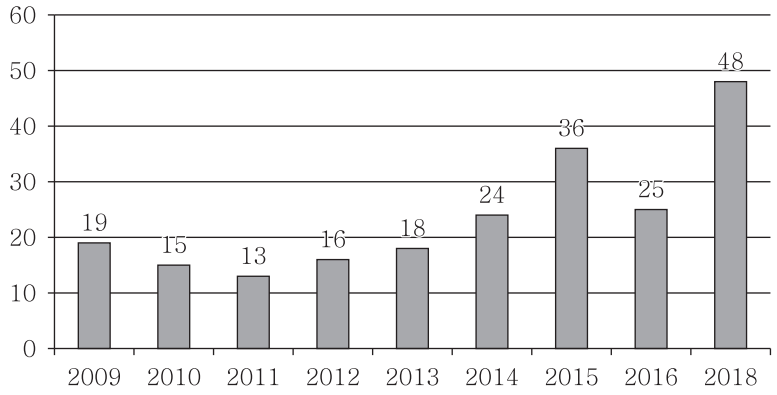


Table 2　Recovery Model in care of SPMI

- Theory
  - SPMI can redefine themselves through life roles and relationships
- Treatment
  - Consumer-driven change process
  - Clinician as consultant, facilitator
  - Shift from pt role to meaningful life role
  - Motivational interviewing
- Goal
  - A meaningful life
  - Professional interventions to facilitate progress in recovery

fine themselves through the life roles and relationships. These recoveries are consumer-driven changing process. Clinicians are just a consultant and a facilitator (Table 2).

5. Shared decision-making (SDM)

In terms of the medical decision-making model, the traditional role of psychiatrists is just under the paternalistic model. The psychiatrist has all the information. The patient's role is just passive acceptance of the doctor's suggestions. The shared decision making for the patient's future treatment and rehabilitation needs to be thought about. More information should be given to the patient and their opinion should be received (Table 3).

In terms of the shared decision making, doctor-patient relationship is the base for the shared decision making.

If professional power and consumer power is nearly equal, the rehabilitation program can be co-designed and many programs can be co-produced for the patients.

Table 3 Models of decision making

	Paternalistic Model	Shared Decision Making	Informed Choice Model
Doctor's Role	Active: - Has all information - Selects the therapy that he/she thinks is the best	Active: - Shares all information and treatment options with the patient - Can recommend an option - Decides on the therapy together with the patient	Passive: - Shares all information and treatment options with the patient - Does not make any decision
Patient's Role	Passive: - "Accepts" the doctor's suggestion	Active: - Receives all information - Forms own opinion - Discusses preferences with the doctor - Decides on the therapy together with the doctor	Active: - Receives all information - Forms own opinion - Decides alone
Responsibility for the decision	- With doctor	- With doctor and patient	- With patient

6. Psychopharmacology and psychosocial rehabilitation

This is the advantage of combining psychopharmacology and psychosocial rehabilitation. Through the medication, the neurocognitive function can be improved and the psychotic symptoms can be reduced. This makes the patient more receptive to rehabilitation (Table 4).

Table 4 Advantages of combining psychopharmacological and psychosocial rehabilitation

Psychopharmacology (Medication)
- Improves neurocognitive performance
- May enhance learning capacity
- Reduces psychotic symptoms
- Makes patients more receptive to rehabilitation

Psychosocial Rehabilitation
- Improve neurocognitive performance
- Teaches compensatory skills
- Helps manage the environment
- Reduces secondary negative symptoms
- Improve drug compliance through psychoeducation

Noodsy DL, O'Keefe C (1999)

Psychosocial rehabilitation also improved neurocognitive performance. It taught many compensatory skills to the patients to recover their functioning.

In terms of the hypothesized outcomes of antipsychotic medications, proximal outcomes will reduce ancillary symptoms and side effects. But the long-term and distal outcome should cover the functional status, quality of life and familial wellbeing. With this proximal and distal outcome, the cost to manage the schizophrenic disease can be saved.

As a clinician, the goal of antipsychotic therapy needs to be thought about. Rather than improving the symptom, we should think about the accelerated progress in rehabilitation and recovery. There should be a synergistic spiral of the improvement of symptom. Functioning, maximizing of function and integration of the patient into the community should be the goals.

7. Conclusion

The pharmacologist's role for long-term treatment should be to deliver medication service, integrated rehabilitation and recovery principle. The focus should be on the treatment with the distal outcome perspective such as quality of life or family wellbeing.

This is the conclusion of the presentation.

Following are the key elements for good outcomes of long-term treatment of severe persistent mentally ill:

New antipsychotics, combined with psychosocial rehabilitation program, should be prescribed. Family intervention is very important. Family members should be made a member of the team to make future plans. Coordinated service in the community with case management by mental health professionals is very important to support the patients in the community.

Through these integrated efforts, people with mental illness, including schizophrenia, will happily recover their functioning and live happily in the community (Table 5).

Thank you for your attention.

Table 5　Key Elements for good outcomes of long-term treatment of SPMI

- Novel antipsychotics
- Psychosocial Rehabilitation Programs
- Familial Intervention
- Coordination of services in the community with Case Management

Through these integrated efforts,
People with Mental Illness
will be happy in the community

Q&A

Shimoda Thank you for the presentation. I now open the paper for discussion and questions or comments. I am happy to invite discussants from the US.

Lillian Comas-Díaz
The George Washington University School of Medicine, US

The presentation was excellent in terms of integrating clinicians with the aspect of what works and what works has to do with collaboration with patients.

I will introduce a concept that was in use in the US and Latin America. It has to do with increasing empowerment and focusing on strength and resilience of patients. Even though they are patients, they are very resilient. Going through what they go through requires a lot of resilience.

One of the areas that empowers patients is known as Liberation Psychology. It originated in Latin America. It focuses on the context of the patient. It helps the patient to develop a critical consciousness and awareness of how the psychosocial environment impacts on them, and how they can impact on how they react to the psychosocial environment. This kind of relationship was found to be crucial in collaboration between the doctor and the consumer.

I also appreciate what was mentioned about clinicians as consultants and facilitators. Clinicians actually are instruments. They are not the ones that are causing the effect. In a way, they just channel professionals in order to be able to connect with the patients and consumers and help them find within themselves, the areas of strengths, resilience and how they can connect with significant others, whether it is a family or a community. As was indicated, mental illness affects not only the patient and the family but the whole community not only in terms of financial cost, but also in terms of the morale and the sense of being of the community.

Additionally, the issue of subjective wellbeing was excellent. Within research, it was found that illness is like a path, a journey, from feeling unwell, to feeling sick, to then becoming a mental health patient. But the journey of healing does not stop when the person is healed. It has to continue to a sense of wellbeing and thriving through adversity, whether it is mental health challenges, the psychosocial context of poverty, marginalization, all kinds of things that are external but connected with the patient.

By moving through that path of healing into thriving, we can not only address the major problems that the patients and families have, but also touch the community wellness and thriving process.

Shimoda The situation about the prescribing pattern of benzodiazepine and antipsychotics in Korea is very similar to that of Japan. Japan has a serious problem about the polypharmacy of antipsychotics and frequent use of benzodiazepine. Twenty years ago, I had spent 1 year in Stockholm, Sweden, where I was surprised to see that they did not use much benzodiazepine.

In Korea, does the government do something? In Japan, if three kinds of antipsychotics are prescribed, the health insurance organization does not pay. I wanted to learn about the Korean situation to stop that kind of prescribing pattern.

Hwang　The Korean national insurance companies also worry about more prescriptions of benzodiazepine. The national health insurance companies would like to reduce the length of prescription of zolpidem or lorazepam. Usually, it is less than 28 days for one prescription, because there is abuse or overuse of benzodiazepine. In many patients, zolpidem addiction can be seen. For the polypharmacy, each antipsychotic has a dosage ceiling. In case of olanzapine, if more than 20 or 30 milligrams is prescribed, there is no reimbursement over 20 milligrams for the prescribing doctors. There is an effective dosage limitation from the national health insurance companies.

In case of large mental hospitals, there are many refractory schizophrenia patients. Recently, the combination of clozapine plus paliperidone or Abilify was seen. This kind of prescription pattern in large mental hospitals means that there are many refractory schizophrenia patients. This is the reality.

Frederick Jacobsen
The George Washington University School of Medicine, US

What percentage of these refractory patients were actually being treated with clozapine?

Hwang　There are no exact statistics about clozapine. Recently, the use of clozapine is increasing. Experientially, in the National Center for Mental Health, more than 10% antipsychotics prescribed is clozapine.

Jacobsen　Recent data shows that clozapine is the only medication-outside of lithium-demonstrated to have an anti-suicide effect in schizophrenia, which may also occur in affective illness. What percentage of those chronic schizophrenics might also be treated with a very tiny dose of lithium of 150 milligrams added to a typical antipsychotic additionally, as a neuroprotective agent? There is good evidence that it works even with these tiny doses. A huge study that came out from Denmark in nearly 74,000 patients (with 730,000 controls) showed that low-dose lithium appears to have a protective effect Alzheimer's disease. There are other demonstrated neuroprotective effects, so that may be one thing to look at.

Hwang　Thank you for the information.

Holistic approach for treating schizophrenic patients in Duren Sawit Mental Hospital Jakarta, Indonesia

Tiur Sihombing
Duren Sawit Mental Hospital Jakarta, Indonesia

1. Introduction: Therapeutic modalities for patients

My talk is about Holistic Approach for Treating Schizophrenic Patients in Duren Sawit Mental Hospital Jakarta, Indonesia. My presentation has no conflict of interest.

I live in Jakarta, the capital city of Indonesia. The Duren Sawit Hospital is the only mental hospital owned by the Government of Jakarta.

To deal with the patients, promotive and preventive, curative and rehabilitation programs are done (Fig. 1).

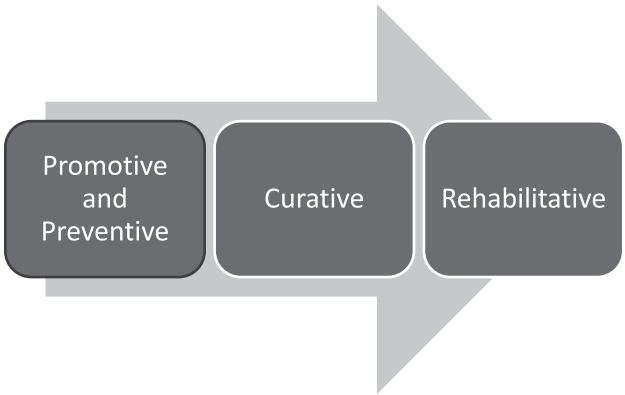
For promotive and preventive program, the patients and the family are given psychoeducation. While they are waiting to see their doctors, they are educated on the importance to take medication regularly and see their doctors every month.

A program named Family Gathering is done thrice in a year. In this program, a family and a caregiver share their experiences with each other. There is knowledge-sharing on how to detect symptoms of recurrence and how important it is to supervise their family member for taking medication regularly.

The Duren Sawit Hospital has nine psychiatrists. Turns are taken once a month to impart psychoeducation to the community about mental health issues such as social phobia or traumatic stress disorder.

Social media, like Instagram and Facebook, is also used to give information to the community.

Fig. 1 Therapeutic modalities for patients



2. Curative programs

For curative program, treatment is done with reference to guidelines. It is very effective and efficient for patients. During the short duration of stay between 14 to 21 days, for the first 2 or 3 days, the patient is in the acute ward. They are given a short-acting injection for treating their acute phase. The patient is then transferred to subacute ward for 3 or 4 days. After the patient is in a stable condition, they are transferred to stabilization ward to take part in a psychosocial rehabilitation program until they are discharged.

For treating cases of comorbidity with physical symptoms, the patients are placed in a special ward that involves collaboration between psychiatrists and other specialists such as internists, neurologists, dermatologists, pulmonologists, nutritionists, of which psychiatrist is the leader. Consultation is done. The length of stay for these comorbid cases varies.

In terms of curative, inpatient and outpatient services are provided. This is the number of outpatients (Fig. 2). Jakarta government has about 15 shelter homes. Schizophrenic patients receive treatment as well. In terms of the child and adolescent outpatient patients, there are about 2,000 patients a month for patient with

Fig. 2　Number of outpatients

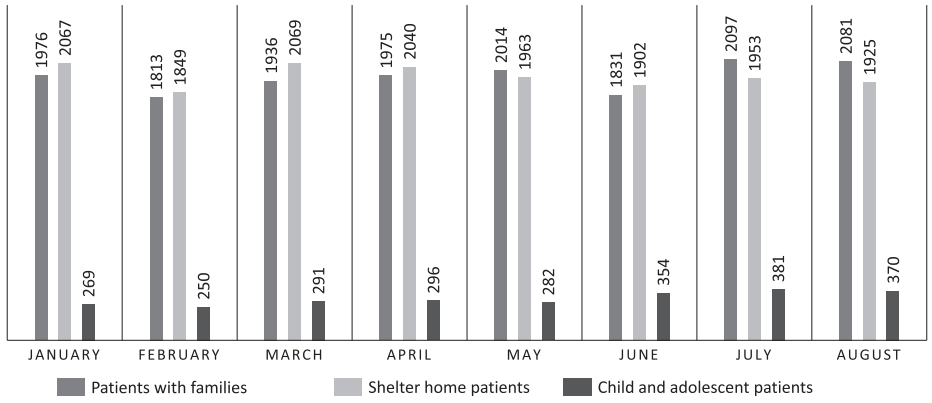
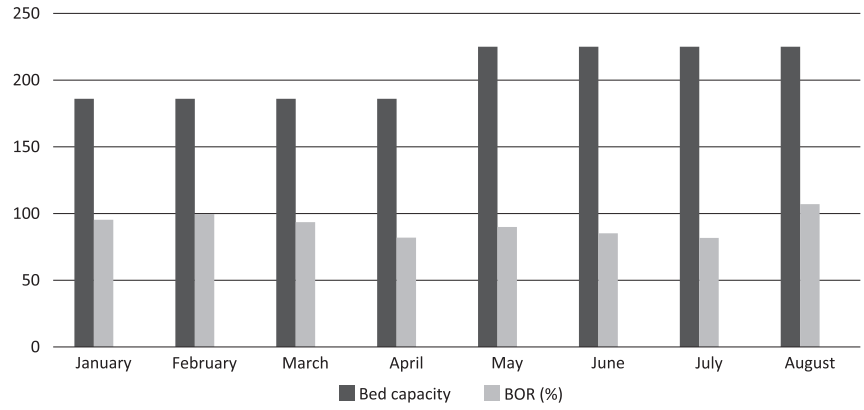


Fig. 3　Number of inpatients



families and shelter home patients and above 300 patients for child and adolescent patients.

Previously, there were 195 beds. Now, there are 225 beds. The bed occupancy rate is about 90% and up to 100% (Fig. 3).

3. Treatment of schizophrenic patients

Schizophrenia is a chronic debilitating disorder and needs long-term treatment. There are many variations in antipsychotics-prescribing patterns for schizophrenic patients. Up to 30% of schizophrenic patients respond poorly to antipsychotics monotherapy. More than half of the patients are being treated with multiple antipsychotic combinations.

An atypical antipsychotic monotherapy is the choice for treating patients. It is about 90% and is based on National Formularium, even though in some chronic cases it is given through a polypharmacy. The importance of accuracy of the strategy in dealing with patients, whether it is the real schizophrenic patients or those who are comorbid with physical illness, is the psychiatrist's main role as a leader.

High use of monotherapy and oral atypical antipsychotics still is the preferred management of schizophrenic patients in the Duren Sawit Hospital. With regards to the effect of positive and negative symptoms, cognitive function, atypical antipsychotics benefit patients and have low extrapyramidal syndrome side effects. Frequently used low-acting injection antipsychotic was the combination with oral antipsychotic. This is because more chronic patients need higher doses of antipsychotic to reach remission.

The number of outpatient prescription during January to August 2019 is approximately 6,000 a month (Fig. 4).

The number of inpatient prescriptions during January to August 2019 is about 5,000 a month (Fig. 5).

This is one of the prescription patterns. In Duren Sawit Hospital, only one antipsychotic, such as risperidone or aripiprazole, is used.

Fig. 4 Number of outpatient prescriptions (January – August 2019) (1)

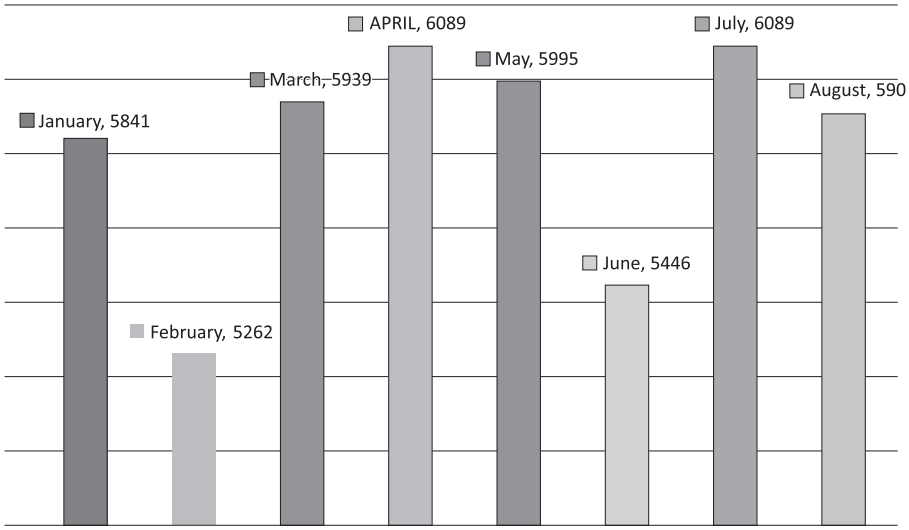
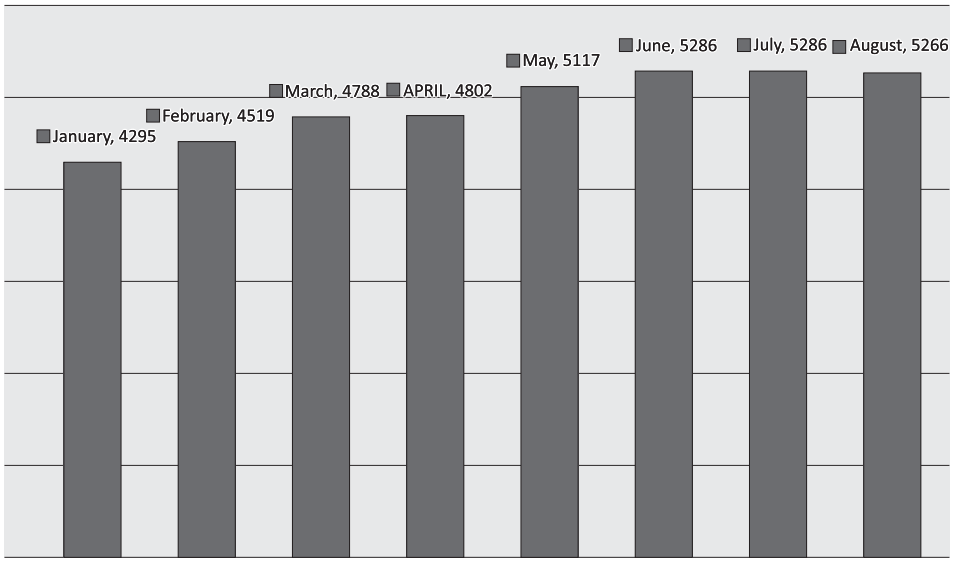


Fig. 5　Number of inpatient prescriptions (January – August 2019) (2)



4. Psychosocial Rehabilitation and day care

In 2005, psychosocial rehabilitation was imparted under the name of Mental Rehabilitation. After 2014, it was changed to be Psychosocial Rehabilitation.

In terms of the activities, there are many activities in psychosocial rehabilitation, such as painting (Fig. 6), sewing, and batik painting.

Fig. 6　Psychosocial rehabilitation

Since April 2015, there is a day care as well. I learned about psychosocial rehabilitation in a mental hospital with Hwang-san, when I was young. This is one of the needs for rehabilitators who have returned to their community or family but do not have activities at home and need some skill trainings.

It is very important to treat schizophrenic patients with a holistic approach. Family and community care should take a part of healing and recovery process.

Q&A

Comas-Díaz Thank you for your holistic approach that looked at what is needed not only in mental health but in physical health as well.

I commend you and your team for using media, because there is a lot of stigma in mental illness. It is very important not only to educate the family but educate the whole country in a way that reinforces the negativity and the stigma with mental illness.

I also commend you for using creativity in treatment. Although a significant amount of highly-creative individuals may have some issues with mental health, that creativity becomes an avenue for functioning in society and eventually helps in transcending the illness.

Are there any kinds of cultural beliefs that see mental illness as a negative scene or as personalized scenes from parents and how is it handled? How is the public educated with that?

Sihombing Indonesia has a lot of diversity. With regards to the community in the rural area, it is very difficult to get information about mental health. But Indonesian psychiatrists are now raising awareness about mental health issues through social media, TV programs, and radio talks. Fortunately, the awareness about mental health is increasing in the community. Rural areas also have one of the traditional healing methods for mental health patients.

Hwang I commend you for your great achievement in the hospital. To run psychosocial rehabilitation, money and more staff is needed to support those programs. With regards to the financial issues from the hospital or from the Jakarta government, are there any special budgets for rehabilitation?

Sihombing Fortunately, Indonesian government paid attention to this. Psychosocial rehabilitation can be paid through insurance, so there is no problem in that regards. Patients for recovery can join the psychosocial rehabilitation without any payment at all, so the government gave full cover for this.

Jacobsen Thank you, Sihombing for your interesting presentation. Korea or the US were made up of only one landmass, whereas Indonesia was made up of different islands and was spread over a

larger area. It would be interesting to know how it was all brought together for the groups for mental health distribution, also because there are many different microcultures in different communities.

Sihombing　This was our big homework. Indonesia does not have more than 2,000 psychiatrists and the population is about 250 million. The Indonesian government policy about mental illness was of great help. This is how we learned about it. Slowly and steadily, we tried to do our best.

Shimoda　I am pleased to know the situation about the psychiatric treatment status in various countries in Asia. I want to confirm if Duren Sawit Hospital accepted more than 4,000 patients in the outpatient clinic per month and what about the number of psychiatrists.

Sihombing　It is true that Duren Sawit Hospital accepted more than 4,000 patients in the outpatient clinic per month and there were nine psychiatrists.

Shimoda　I am working for a private university where I am the Chief Psychiatrist and have 15 subordinates who work under me. The university accepted 2,700 patients per month. I am very worried about you and your working condition.

Sihombing　We have to skip our lunch on some days but we were able to perform even with lesser number of psychiatrists.

Shimoda　I want to confirm if you mainly used atypical antipsychotics for schizophrenic patients.

Sihombing　It is true that we mainly used atypical antipsychotics for schizophrenic patients.

Shimoda　The adverse effect pattern has changed from the first generation, like haloperidol or chlorpromazine, which is good. But there is another kind of very serious side effect which is the metabolic syndrome.

In Japan, three universities performed the National Survey for Metabolic Syndrome in Schizophrenic Patients, especially in outpatients. Approximately, 34% of schizophrenic outpatients have suffered from metabolic syndrome. I want to ask about the situation in Indonesia's Duren Sawit Hospital. As I was not a nursing personnel, I want to know if the general psychiatrists know about the serious side effect of atypical antipsychotics, like olanzapine.

Sihombing　We do educate the patient and the family or caregiver about the side effect, especially metabolic syndrome. Whenever the patients come, their vitals are taken and if there is weight gain, psychiatrists collaborate with nutritionists. They check the blood glucose and liver function tests every 6 months on a regular basis.

Shimoda　I want to know about the education pattern of food taking, since some patients like cheap fast food like McDonald's or

Kentucky fried chicken or hotdogs or coke.

Sihombing We ask the patients to reduce the intake of carbohydrates and take up sports. Indonesian people like to eat a lot of fries as they say that anything without fries is no eating. This is why licensed psychiatrists' consultations are doing well in Duren Sawit Hospital. If there is a problem, the patient is referred to another specialist.

Jacobsen One of the things that we are starting to discover in the US, with respect to this concern, and there have been some studies from other countries as well, is having psychiatrists learn to prescribe metformin to many of their patients at the outset, when they start to notice some weight gain, to prevent and reverse the weight gain and prevent it from occurring.

I want to know if the psychiatrists in Indonesia were doing that, as not enough psychiatrists in the US are doing it. Knowing this could be very helpful because this issue of metabolic syndrome is very severe and is leading to an increased incidence of Alzheimer's disease.

Comas-Díaz I commend you for your concern about the patients' wellbeing and I am amazed at the great work that you and nine other psychiatrists were doing. I want to know about your self-care and if you are comfortable, so that others can learn from you.

Sihombing I am enjoying my life.

Comas-Díaz This is the best philosophy.

Kurihara The recent revision of the Geneva Declaration by the World Medical Association stated that the physician's well-being is very important for healthcare. When I visited the Duren Sawit Hospital, I learned that there were fewer psychiatrists and there were many patients to handle and the hospital resource was very limited.

On the other hand, the hospital had plentiful of interdisciplinary teams, including internists who took care of the metabolic syndrome or other diseases which mental health patients have to deal with. I want to understand this discrepancy of very limited human resource of psychiatrists and plentiful multidisciplinary teams. Since the Duren Sawit Hospital is a government hospital, so it may be a model case to show idealistic style to provide care through a multidisciplinary team. Do the internists or other kinds of doctors work as hard as psychiatrists?

Sihombing It was only the psychiatrists who were working hard, as there were only nine psychiatrists, but I hope that other psychiatrists would join soon.

The Key Strategies for treating severe mental Ill (SMI) patient in Taiwanese community

Yen Kuang Yang[*2]
Department of Psychiatry, National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Taiwan

1. Introduction: typical course of schizophrenia illness

Thank you for the invitation to share my experience on The Key Strategies for Treating Severe Mental Ill in Community. Since I had participated in many clinical drug trials, I need to declare a lot of conflict of interest.

Schizophrenia is a very chronic disease and its deteriorating condition should be emphasized.

A small patient study in the lab showed that in the beginning, schizophrenic patients' core cognitive deficit is significantly poor as compared to major depressive disorders. Some of these patients were followed up at the beginning and their cognitive deficit is as shown here. Three months later, some of the patients' domain could be improved, while some of the domain could not be improved. Two years later, although enough treatment was provided, patient adherence is good enough, however, some of their cognitive deficit is still observed.

This figure is quite important for every clinician. Unfortunately, not every clinician, particularly psychiatrists, emphasized and took care while treating schizophrenic patients. Why some patients' condition deteriorated sooner than others needs to be studied. Currently, this was being looked at by not just emphasizing on pharmacological treatments. Since the very beginning, the patients should be differentiated into different subgroups, particularly based on their biological basis.

Some patients, that the psychiatrists are very familiar with, are dopamine dominant and receive antipsychotic treatment after several years. Later, their response could be better than those patients at the beginning

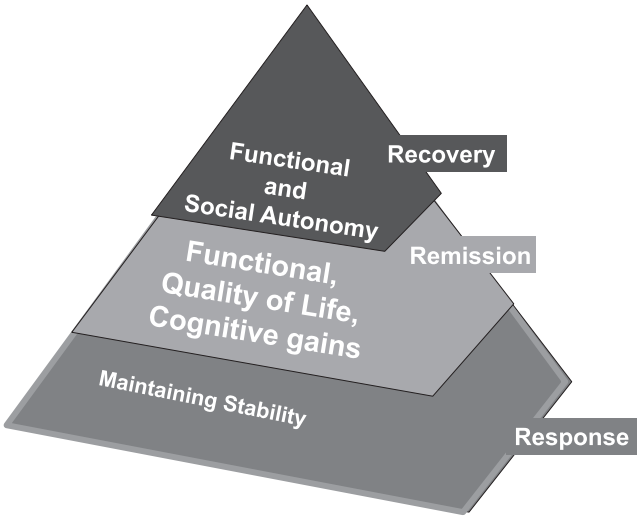
[*2] Disclosure: Conflict of interest
- Honoraria:
  Astra-Zeneca, GlaxoSmithKline, Eli Lilly, Pfizer, Janssen-Cilag (J&J), Wyeth, Otsuka, Fujsawa (Astellas), Sanofi-Aventis, Organon (Schering-Plough), Servier
- Advisory board:
  Jassen-Cilag (J&J), Pfizer, Eli Lilly, Lundbeck
- Research grand:
  GlaxoSmithKline, Eli Lilly, Pfizer, Janssen-Cilag (J&J), Sanofi-Aventis, Wyeth, Otsuka, Astellas, Dai Nippon Sumitomo, Atomic Energy Council, Lundbeck, Roche, Mitsubishi Tanabe, Boehringer Ingelheim

of their illness onset. Their symptomatology and their outcome could be different.

The question that still remains is whether a very clear biological marker or a molecular marker can be found to predict patient outcomes in the future.

The hypothesis is that the treatment outcome should be really emphasized from the response to the recoveries (Fig. 1).

Fig. 1 Different goal of treatment outcome



Adapted from Weiden et al, *J Clin Psych*. 1996; 57: 53-60.

The study tries to evaluate the national survey for health insurance databank. At the beginning of the hospitalization, when the patients were discharged from acute wards after 4 months, 25% patients relapsed again in Taiwan. This demonstrates that community or maintenance treatment is not so good. Even for those in Taiwan, all of these patients had health insurance reimbursements and they just need to pay a very little copay. But their outcome is not so good. Most of their poor outcome is due to poor adherence.

2. Key strategy

Using Professor John Kane's framework (Kane J et al. Am J Psychiatry. 2016), the key strategies were divided into four components: (1) psychopharmacology; (2) individual resilience training; (3) family psychoeducation and support; (4) supported employment and education.

2.1 Psychopharmacology

The first is the pharmacological aspect.

This is John Kane's study for the first episode, early intervention. The result is quite convincing. Money or medical resources are quite important. Pharmacological treatment is quite a critical issue.

The second-generation antipsychotics are better. But in the real world, there is not enough money to offer everyone to use the best drugs. It is still a question whether pharmaceutical companies have conducted long-acting antipsychotic injectable compared to first and second generation. International Diseases study was conducted and the hypothesis was that a second generation long-acting injectable is better.

A nationwide study in Taiwan shows quite surprising results. Long-acting injectable risperidone (2 weeks/injection) is not as good as compared to the first-generation drugs (4 weeks/injection). In some aspect, this comparison may be unfair as for this part of the drugs, the duration for each shot in not equal. Currently, several pharmaceutical companies are seriously looking at the issue of how to conduct and which is better: 1 month versus 1 month or 3 months versus 1 month. Currently, Taiwan does not have enough long databank. The comparison result is just ongoing (Table 1).

Table 1　A comparison of medical utilization between the pre-LAI and post-LAI periods

	Pre-LAI period		Post-LAI period		p value
	Mean	SD	Mean	SD	Wilcoxon signed rank test
Risperidone (N = 199)					
Emergency room visits	0.12	0.44	0.05	0.30	0.047
Acute admissions	0.37	0.75	0.44	1.06	0.50
Duration of admission	11.97	26.24	15.70	33.69	0.23
Relapse	0.39	0.68	0.40	0.67	0.88
Flupentixol (N = 284)					
Emergency room visits	0.16	0.61	0.06	0.46	0.0001
Acute admissions	0.12	0.38	0.15	0.46	0.33
Duration of admission	4.92	16.76	5.81	22.04	0.72
Relapse	0.23	0.58	0.20	0.61	0.28
Haloperidol (N = 449)					
Emergency room visits	0.20	0.55	0.07	0.37	<0.0001
Acute admissions	0.19	0.56	0.19	0.48	0.97
Duration of admission	6.20	20.85	7.98	24.71	0.07
Relapse	0.32	0.62	0.24	0.54	0.01

Yu HY et al. *Schizophrenia Research*. 2015 169: 400-5.

2.2 Individual resilience training

Based on John Kane's framework, the second issue of resilience is quite important, but here only long-term follow up is mentioned.

This is a study which investigated schizophrenic patients in the university hospital. The data was correlated 20 years later. This databank was the National Mortality Registration Databank. Quite surprisingly, in addition to the so-called metabolic risk factors, like diabetes mellitus, cardiovascular problems, pneumonia and other problems, committing suicide, standard mortality ratio (SMR), is at the top (38) in terms of the standard mortality ratio (Table 2). That's why the individual resilience training for patients with schizophrenia is important.

When I wanted to publish this paper, a lot of the reviewers asked why Taiwan's data was so bad. Later, Taiwan carried out a survey with a nationwide study that revealed that the SMR was up to 60. I felt more comfortable with this number as the university hospital's average is better than the national average. It is a very important issue that not only focuses on physical problems but linear regression and related issues are also quite important. Otherwise, the worst outcome is committing suicide. The years of potential life lost is around 13 to 14 years' loss which is bad news for treating these patients.

Strategy-wise, Taiwan has the National Center for Suicide Prevention. Patients with mental illness after their hospitalization or patients with some suicidal attempts need to be reported to the government by the psychiatrist or the clinician. The government then assigns some case managers to try to monitor or help these individuals to try to decrease the suicide-related issues.

For more than 10 years, it was noted that the suicide committing rate has decreased remarkably. Unfortunately, during the 3 years, it increased slightly again. The lawmakers get angry as to why they should invest a lot of money on the patients when they are not getting better gradually. This is still a big challenge in Taiwan (Table 3).

Table 2 Cause of death of schizophrenia with observed deaths

Cause of death	Observed	SMR	95% CI
Malignant neoplasms	60	4.8	3.5-5.9
Cardiovascular diseases	30	8.2	5.1-11.2
Cerebrovascular diseases	16	5.5	2.8-8.5
Diabetes mellitus	20	8.6	4.7-12.5
Pneumonia	11	10.7	4.5-17.9
Hepatitis and liver cirrhosis	16	6.2	3.1-9.5
Nephritis and renal failure	4	4.1	0.7-9.6
Accidents and injury	37	7.7	5.1-10.2
Suicide	74	31.3	23.3-38.0
Homicide	2	10.9	0.3-35.8
All causes	367	8.8	7.8-9.6

Ko et al. *Psychiatry Research*. 2018.

Table 3 Years of Potential Life Lost in Patients with Schizophrenia (1998-2010)

Cause of death	Schizophrenia				General population			
	YPLL	Deaths	Mean	SD	YPLL	Deaths	Mean	SD
Malignant neoplasms*	1,430	54	26.5	11.3	5,288,868	332,151	15.9	11.1
Cardiovascular diseases*	706	28	25.2	10.3	1,255,221	97,052	12.9	12.1
Cerebrvovascular diseases	231	14	16.5	11.3	1,067,164	85,844	12.4	11.5
Diabetes mellitus*	430	17	25.3	10.0	856,564	75,571	11.3	10.2
Pneumonia*	200	8	25.0	11.4	264,976	23,929	11.1	12.2
Hepatitis and liver cirrhosis	366	15	24.4	9.6	1,138,552	56,571	20.1	13.9
Nephritis and renal failure*	122	4	30.5	15.0	334,443	28,559	11.7	11.3
Accidents and injury	1,348	37	36.4	13.4	2,762,716	93,339	29.6	19.6
Suicide*	2,928	74	39.6	12.2	1,182,771	40,156	29.5	18.9
Homicide	93	2	46.5	9.2	104,665	2,969	35.3	15.5
*All causes**	10,460	342	30.6	13.7	17,474,525	1,031,764	16.9	14.1

Ko et al. *Psychiatry Research*. 2018.

2.3 Family psychoeducation and support

The third is family education and support. As is known, de-institutionalization is quite important.

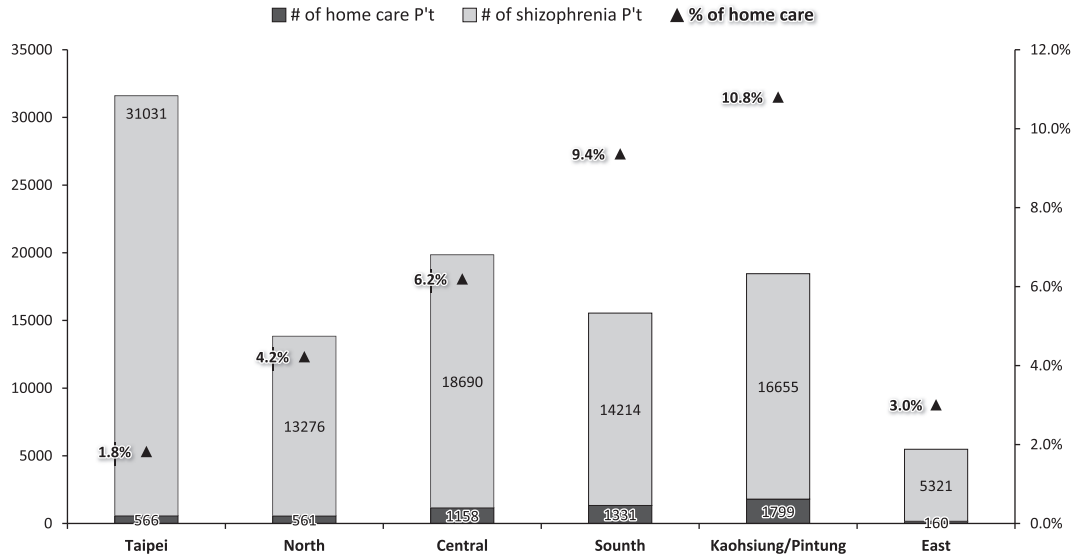
Taiwan has health insurance programs from acute to daycare to community rehab center, home care, and a lot of these programs are reimbursed by Taiwan's health insurance system.

It is quite important to build this process and provide a good enough case manager who will provide services not only for monitoring patients' mental but also empowering families' skill and know-how for caring

their patient families. Currently, Taiwan's health insurance system has provided this kind of health insurance homecare services for years (Fig. 2).

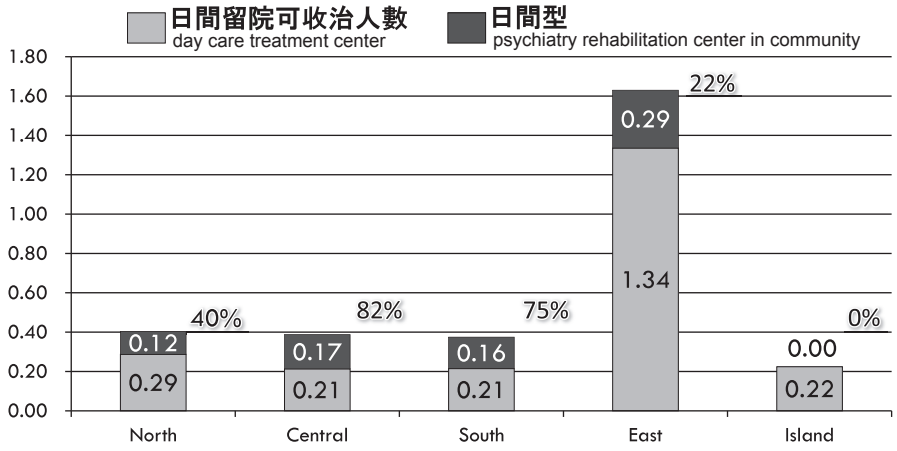
There are a lot of different areas in Taiwan, like psychiatrists and their services for healthcare services. The proportion is quite different. There is also reimbursement for daycare treatment program, rehabilitation and treatment program. It is quite similar in Taiwan (Fig. 3). The equal distribution of each psychiatric community care service is still a big challenge.

Fig. 2　Home care service by BNHI branch in Taiwan, 2012



Source: 2012 BNHI

Fig. 3　Distribution of day care/rehabilitation center service in Taiwan (1 unit per 1,000 persons)



Source: 2013 National Mental Health Resource Report, MOHW
North: 台北、新北、宜蘭、桃園、基隆**(9.48M)** Central: 新竹、苗栗、台中、彰化、南投**(6.02M)** South: 雲林、嘉義、台南、高雄、屏東 **(7.03M)**East: 花蓮、台東**(0.56M)** Island: 離島 **(0.26M)**

2.4 Supported employment and education

The final part is supported employment and education.

This is the comparison of financial cost for a patient with substance abuse. For this substance abuse, the sample is opioid abuse. In schizophrenic patients, more than 87% of the cost is indirect cost. The medical costs are only 13% of the total cost. This is indirect cost. Most of the direct cost comes from the patient and the caregiver job list. Restoration of linear functionality is quite important, particularly in Taiwan. For Taiwan, the least economic cost is almost equal to 1 GDP, so it is a very huge burden for patients with schizophrenia and their long-term care (Fig. 4).

The indirect costs and the linear functionality were also analyzed. We can find a very high correlation using GAS and adverse side effect of EPS Rating Scale.

Based on evidence data, the final common pathway could be through the supported employment service. It could be like a leverage to conquer or to improve the best situations.

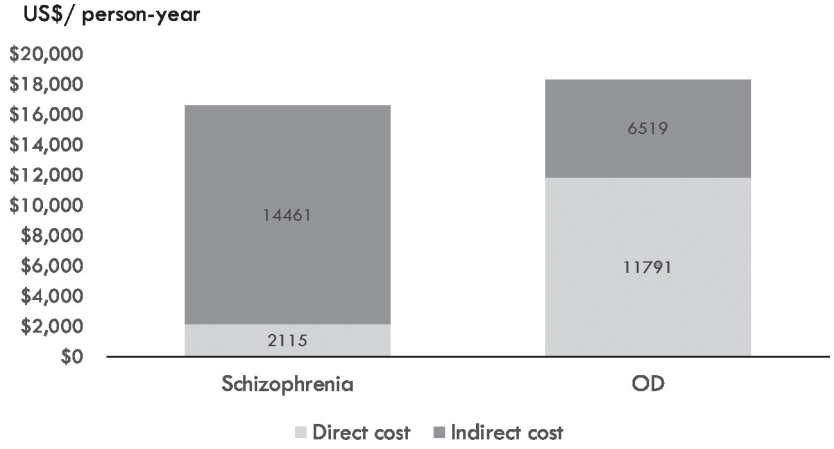
This is the rehabilitation center in the NCKUH. After intervention, the relapse rate is significantly lower as compared to what was previously reported. The regression analysis is significantly high.

This is the Idea Treatment Model. The NCKUH has only 30 beds. More than 80 or 90 beds will be added and made available for Daycare Treatment Center. More rehabilitation sites and rehabilitation programs need to be provided for those patients in the communities. More case managers or outreach teams need to be provided to cover up for their lesser numbers, and if the patient's outpatient number is this kind of model (Fig. 5).

In Taiwan, the health insurance system and the public mental health nurses provide a case manager in the government. They cooperate with each other. This is a recent nationwide study that analyzes this program when the patients are treated and discharged from the hospital.

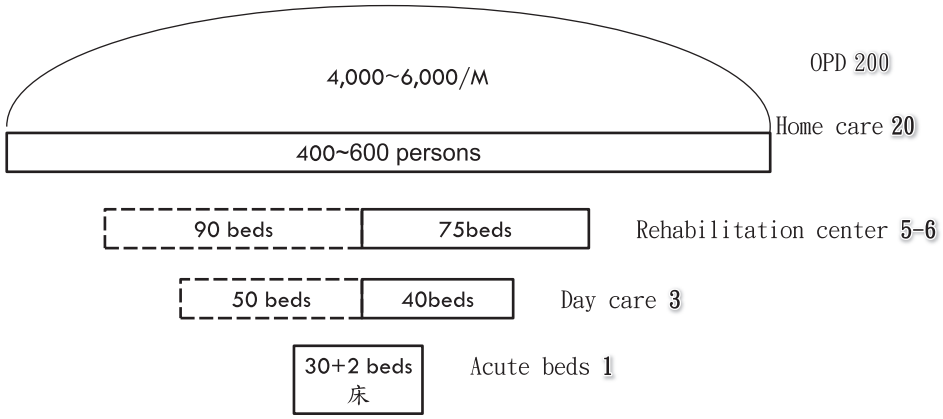
There is a law that regulates such patients to be reported. Lots of these patients with severe mental disorder need to be reported to the government. The government sends a case manager for them. After this process,

Fig. 4 The economic cost of opioid user vs schizophrenia (US$/ person-year), (1.07 GDP)



Lee IH et al. *Psychiatry Research*. 2008.
Lin SH et al. *Psychiatry Research*. 2013.

Fig. 5　Idea treatment modality in department of psychiatry



the patients are followed up 3 years later. Their results are compared with their previous 3 years' result using mirror-analysis. It is found that the result is quite convincing.

Using this data, there was an effort to convince the government to inject more funding for case managers and system in the community for a severe mental illness.

This is the mental health care services rating among Asia-Pacific countries that uses environment, opportunities, access to treatment and governance as index in 2016. Compared to Oceania countries like New Zealand or Australia, Taiwan is using very low cost to achieve some kind of mental healthcare (Table 4).

Table 4　Overall score

1 New Zealand 94.7
2 Australia 92.2
3 Taiwan 80.1
4 Singapore 76.4
5 South Korea 75.9
6 Japan 67.4
7 Hong Kong 65.8
8 Malaysia 54.1
9 China 45.5
10 Thailand 44.6
11 India 29.4
12 Philippines 25.5
13 Vietnam 20.6
14 Indonesia 16.7
15 Pakistan 12.8

(Environment/Opportunities/Access to treatment/Governance)
Source: The Economist Intelligence Unit 2016

3. Conclusion

A comprehensive intervention in the initial stage is quite important. Not just pharmacological intervention, but subtyping is also quite important.

The second issue is that the medical resources are not good and also not enough till now. There is still some dilemma as some of the inpatient bed availability is still increasing slightly which is not so good. Even though the government is trying to inhibit, they are still encountering some political conflict.

The functionality outcome is quite important, particularly for long-term care.

Finally, the health insurance sector should cooperate with the public health sector together to make this treatment better.

Q&A

Comas-Díaz It was quite delightful to hear your presentation. I and Jacobsen have come from Taiwan, after attending an Annual Congress for Mental Health in Taipei.

My question/comment has to do with suicide and how suicide is becoming not only a mental but also a public health problem certainly in the US as well. Are there any kinds of interdisciplinary approaches to address suicidality? For instance, spiritual, religious, philosophical approaches that could be conveyed to the community. Since these are the severely affected population, the family context can also be very helpful.

Yang The suicide-related issue is quite complicated. Currently, the National Center for Suicide Prevention has been established in Taiwan. The suicide committing rates have become a priority for the central government that tries to evaluate local government and their performance. Each local government, like a city government, has their own committee that tries to evaluate its performance. At the end of the year, each local government's performance is compared.

I have observed two different cities, but we can find different mayors with different strategies. Some mayors could be very energetic and ask all their men/keypersons, like the Chief of Education, Chief of Finance, Chief of Agriculture, to be mindful that some of the drugs that are being used could be used to commit suicide. Some cities incorporate, while other cities do not. The government has another bonus for these local governments. Suicide prevention is not just for a psychiatrist or mental health, it is for all countries. If the level of central governments is raised, there will be more efficiency. This is my personal opinion.

Kurihara When we invited you for the Japanese Society of Psychiatry and Neurology Annual Meeting in Yokohama, 2014, titled "Learning from psychiatric care in Asian countries" you had made a fantastic presentation where you were working and collaborating with the local government and there was a drastic decrease in suicide rate. How is this impact being achieved through the national policy or national regulation for competitive citizen innovation?

Yang It is important to interact with the mayor or the local government. In the NCKUH, the mayor of the local government, is a physician. It was quite easy for me to communicate with the mayor who was my student a long time ago.

Currently, I have moved to another county which has political men who do not think this issue to be quite

important. I had quite some difficulty to meet the mayor. Sometimes the chairperson, who should be the list editor, was always absent. The final data has a lot of differences. As this kind of professionals, some politics is needed to try to influence the director to try to emphasize these issues. Again, this is my personal opinion.

Kurihara　You mean that your achievement was superior than other cities.

Hwang　I have two questions.

Firstly, in Korea, hospital-based case management program was recently started for the very high risk with regards to committing suicide or some violence towards the family or neighbors. Is there any limit or frequency per month on the reimbursement for the home visit by the psychiatrists?

Secondly, there was a mention that NCKUH's bed size is increasing. Both, Japan and Korea have many long-term hospitalization cases. But recently, in Korea, it was witnessed that the bedside is decreasing. Is there a bed size increase in public or private sector and what is the reason for that?

Yang　Firstly, with regards to the homecare services for each psychiatrist in Taiwan, the health insurance regulation is once per month. In the same month, they also provide two times for psychiatry nurses. During this period, at least three different professionals visit the patient. The homecare service budget is totally different from the general practitioner budget.

In Taiwan, the health insurance is very restricted. Currently, it has a global budget. For example, NCKUH has a global budget of 1 million. If the patient exceeds more than 1 million, the psychiatrist provides his services, but the health insurance does not pay anymore.

At the end of each year, physicians are encouraged to have their vocation. Therefore, the patients become a decoy to find their physician which is not so good. This is the total budget capturing. Taiwanese govern-

ment does not care how many antipsychotics are prescribed. Psychiatrists can prescribe 4, 5, 6, if the hospital can tolerate.

The bed size is increased during traditional chronic events, but some of the halfway house beds increased. But in Taiwan, it is not only a halfway house that is provided in a limited way, there is a modified form, the so-called halfway house, but they provide services for 24 hours. This is another transformation for chronic or distributed in the community. The total care volume is being used for 24 hours.

This volume or capacity increased a long time ago. This different program is a 24 hours' program. All reimbursement is done by the health insurance. The final calculation is that to try to decrease 24 hours' services and reimbursements by health insurance, the need is to provide more daycare or home visits. Unfortunately, the first part (24-hour care unit) is more and more preferred by Taiwan's institutional owners, as they can then make more profit.

This is a political issue, not a scientific issue.

Shimoda I thank the three speakers from Korea, Indonesia and Taiwan. I hope that all the participants are pleased to learn about the three barriers as well as the situation of a psychiatric treatment or psychiatric medicine situation currently in Asia. After hearing about the situations in a friendly country, I now feel better as I am not the only person that suffered the very severe working conditions. This was the best treatment. Thank you everyone for your participation in the symposium.

Part 2 Open Lab Meeting

Opening remarks

Chieko Kurihara
Bioethics Policy Study Group, Japan

Thank you everyone for your participation in yesterday's symposium.

Today as the second-round session, we requested you to have another presentation expanding the topic of yesterday's session.

Yesterday the discussion focused on pharmacotherapy and at this session we wish to discuss more about community care and human rights of people with mental disorders. We regard such Asian collaboration would contribute to some kind of consensus development in Asian cultural situation.

Today Dr. Takeo Saio will talk about Japanese situation and then Dr. Tiur Sihombing from Indonesia; Dr. Yen Kuang Yang from Taiwan; and Dr. Tae-Yeon Hwang from South Korea will talk, and then have a free discussion.

So, Dr. Saio, please start your presentation.

Psychopolitics and contemporary issues of Japan – The Nation of Nowhere

Takeo Saio
Fuji Toranomon Orthopedic Hospital, Japan

1. History of modern psychiatry into Japan

I will make two presentations; one on the psychiatric situation in Japan, particularly of the psychopolitics, and second on the deaths suspected adverse drug reaction at the time of launch of once-monthly paliperidone palmitate long-acting injection (PP-LAI).

I have no conflict of interest to declare on these two presentations.

I am a member of the Committee of Pharmaceutical Affairs as well as the Committee of Mental Health of Japanese Society of Psychiatry and Neurology (JSPN) which has over 16,000 members.

Japan was a less-developed and a poor country at a time in the past. From 1900 (late Meiji era) to 1945(the year of the end of the World War II), modern psychiatry was introduced from Germany. It was not much implemented because Japan, was poor country and couldn't afford the cost of psychiatric practice well as a poor country at that time,

About 100 years ago, there were a lot of parlor prisons run by families of mentally ill persons to confine them without treatments (Table 1). Finally, in 1950, the Mental Hygiene Law prohibited parlor prisons officially.

About ten years after the World War II, a lot of private psychiatric hospitals were established in a relatively short period of time because of the enriched financial support of Japanese government to the maintenance and operation costs of psychiatric hospitals. Though their standard of care was not good at large, Japanese government condone the situation. The president of Japan Medical Association, Dr. Taro Takemi, then criticized the owners of psychiatric hospitals as "stockbreeders" by analogy against the poor standard of care in them.

In the 1960s, many scandals in mental hospitals came to light including deaths caused by abuse to the patients and bill-paddings. From October 1967 to February 1968, Dr. David Hazell Clark, the medical superintendent of Fulbourn Hospital UK and the World Health Organization (WHO) adviser, visited Japan to inspect psychiatric services of Japan in order to meet the demand of Japanese government to the WHO. He criticized in his report to the WHO the institutionalism of Japan*[3], but a section chief of Japanese Ministry

Table 1　Chronology of modern psychopolitics in Japan

Late term of Meiji Era～End of WW2

- 1900 A.D.: Law for Control of the Mentally Subnomal
  - Police oversighted parlor prisons run by families of mentally ill persons.
- 1919 A.D.: Mental Hospital Law
  - urging construction of mental hospitals
  - but only 6 public mental hospital was settled in the war period

Post WW2～2000

- 1950: Mental Hygiene Law
  - repeal of 2 former laws
  - prohibit parlor prisons
  - systematization of involuntary hospitalization
- 1958: Notice of the Secretary-General of Ministry of Health; Special standards for psychiatric wards
  - Government permitted to assign psychiatric wards much smaller number of health professionals than other clinical departments
- 1960: Dr. Taro Takemi (the president of Japanese Medical Association) assaulted top executives of psychiatric hospitals as “stockbreeders (cattle breeders)”
- 1965: Revision of Mental Hygiene Law
  - obligation of police officers to report governors on apparently mental ill persons
  - publicly funded health care for mental ill persons
- 1968: Admonishment by Dr. David H. Clark
  - criticism on institutionalism-hospitalization of Japanese mental hospitals
- 1969: Kanazawa Assembly of Japanese Society of Psychiatry and Neurology (JSPN)
  - dismission of the President, Prof. Hiroshi Utena (Tokyo Univ.)
  - dismantling struggle of doctor toward pyramid system of medical doctors apotheosizing the chief professor.
- 1969: Statement from the administrative board of JSPN; “Appealing to all JSPN members in relation to high incidence of scandals in psychiatric hospitals”
  - blaming on abuse-torture of patients in psychiatric hospitals
  - bogus claims of health insurance reimbursement by psychiatric hospitals
- 1987: Mental Health Act
  - repeal of Mental Hygiene Law
  - protection of human rights
  - Prefectural Committee on Psychiatric Practices postaudit the legitimacy of each involuntary admission to psychiatric hospitals
- 1993: Revision of Mental Health Act
  - Centers for social rehabilitation of mentally handicapped persons
- 1995: Act on Mental Health and Welfare for the Mentally Disabled
  - repeal of Mental Health Act
  - mentally handicapped persons legally defined as disabled
  - social inclusion of mentally handicapped persons

2000～today

- 2005: Services and Supports for Persons with Disabilities Act
- 2005: Act on Medical Care and Treatment for Persons Who Have Caused Serious Cases Under the Condition of Insanity (Medical Treatment and Supervision Act: MTSA)
- 2005: Developmental Disorders Support Act
- 2005: “Medical consultations for long-time workers” [countermeasure to death induced by overwork]
  - revision of Industrial Safety and Health Act
- 2006: Basic Act on Suicide Countermeasures
- 2013: Total Supports for Persons with Disabilities Act
  - revision-rename of Services and Supports for Persons with Disabilities Act
- 2015: “Stress checks” [countermeasure to rash of depressive workers]
  - revision of Industrial Safety and Health Act

[*3] Clark DH. Assignment report, November 1967-February 1968. WHO regional office for the Western Pacific ; 1968. (known as “Clark’s Admonishment” in Japan) (Available from: http://nvc.webcrow.jp/CK5a.htm) [Cited 2021 Jan 4th]

of Health allegedly scoffed off it saying "We have nothing to learn from decaying UK" in the press conference about the report. From 1970s to 1990s, ugly stories around psychiatric hospitals were sometimes covered by the media such as punitive abuses of electric convulsion, unlawful confinement to the isolation rooms, group bashings and violations to the patients, and corvees in psychiatric hospitals. Statutes and regulations on mental health policy were often promulgated in response to these scandals.

In 2000s to 2010s, some influential policies related to psychiatry were implemented. First, legislation of suicide prevention was established to tackle with rapid increase in suicides. Second, to consolidate the system of dealing criminals with mentally ill persons, Medical Treatment and Supervision Act (MTSA) was enacted despite long-lasting stiff opposition against preventive detention of mentally-ill persons. Third, as remedies for increasing number of suicides of persons of productive years, the Industrial Safety and Health Act was revised to detect depressive or overwhelmed workers by their overwork or psychological burden.

Of course, there are much strong oppositions against these policies pointing out scarcity of underpinning robust scientific evidence of them.

2. Infilling gaps between society and psychiatry

For at least for 30 years, Japan has long-lasting social perplexities around psychiatry.

As you might know, or as is well known in the world, long hospitalization and polypharmacy are particularity of Japanese psychiatry. Too many psychiatric beds and too long hospital stays reflect the particularity of Japanese psychiatry*[4]. The expenditure for medication is high in Japan*[5]. As of psychiatry, megadose-multiple prescriptions are not rare. Sometimes over 10 kinds of psychotropics with maximum doses are prescribed for one person with other drugs like oral hypoglycemic agents, antihypertensives, laxatives etc. Only large reduction of medications can often improve symptoms of patients which suggests they are not symptoms of underlying or primary disease but mere adverse drug reactions.

In addition, new issues around psychiatry emerged in 2010s.

There are three affairs that shook the Japanese society recently (Table 2).

First is the Sagamihara Affair where a former employee of a disabled facility massacred the disabled for his eugenic belief.

Second is the Saint Marianna University affair. Many university psychiatrists got designated license for forced hospitalization by cheating in the exam to get the license.

The third is the E-clinic affair that a famous psychiatrist was criticized for running akin to poverty business suggestive of exploitation of patients.

3. Occupational mental health

In occupational mental health, there is an increase in the number of workers with depressive symptoms. To

*4 Ito H, Setoya Y, Suzuki Y. Lessons learned in developing community mental health care in East and South East Asia. *World Psychiatry*. 2012; 11(3): 186-90.

*5 Organisation for Economic Co-operation and Developmen. Health at a Glance 2017: OECD Indicators. OECD Publishing: Paris; 2017. (Available from: https://www.oecd.org/social/health-at-a-glance-19991312.htm)

Table 2　Current affairs in Japan

2016: Massacre in a facility for the disabled people by an alleged psychotic patient (Sagamihara affair)

- Massacre in a facility for the disabled people by an alleged psychotic patient
  - 19 handicapped people were killed (26 others injured) in a disabled facility in Sagamihara city, Kanagawa prefecture (about 1 hour car ride from Tokyo)
  - The murderer is 1) former employee of the disabled facility who asserts that killing the disabled is social justice, 2) was committed to forced hospitalization to a University hospital (Kitasato University East Hospital) 5 months before the affair as psychotics (delusional disorder , bipolar disorder, cannabis provoked psychosis).
- The manslayer has eugenic belief of "Lebensunwertes Leben" (Life unworthy of life).

2015: Improper acquisition of a university psychiatrists with the qualification of involuntary hospitalization power using fake case-reports (St. Marianna University affair)

- Improper acquisition of a university psychiatrists with the qualification of involuntary hospitalization power ("Seishin-Hoken-Shitei-I" meaning designated license for forced hospitalization) using fake case-reports.
- 20 university psychiatrists of a university psychiatric division forfeited their qualification of involuntary hospitalization power and suspended their medical licenses.
- Reportedly, after this affair, over 100 psychiatrists in all over Japan were deprived their qualification.
- But some **disqualified psychiatrists won law cases** against the government's decision afterward.

2015: A series of media coverage of allegedly poverty business by the outpatient clinics run by a famous psychiatrist (E-clinic affair)

- District social workers in Tokyo detached from the clinic group referred their clients to the clinics they come.
- Those who referred to the clinics were given a lot of psychotropic drugs for dubious psychiatric indication.
- The clinic used cheap lodging houses as some kind of psychiatric wards.
- The official report on the E-clinic affair was issued in Feb 2019 by Japanese Society for Day Care Treatment concluding the president of E-clinic should be canceled its membership to the society.

tackle with this, in accordance with the revised Industrial Safety and Health Act, the government ordered to business enterprises to reduce working hours of workers significantly, and to screen psychological stress serving as triggers of depressive symptoms with "Stress check" questionnaire. The new occupational mental health policy includes consultations to workers of long hours or highly stressed workers by medical doctors (mostly by industrial physicians).

So-called "Re-Work Program" for sick-left workers are in vogue as a new business of psychiatry. though the program varies every provider, all aims to reinstate the sick leaves with group work and group psychotherapy for about 4 to 7 months.

4. New movements

New movements in Japanese psychiatric scene emerging now. Finnish-origin Open Dialogue (OD) approach is also in vogue in Japan. OD is a kind of patient-oriented talk therapy with team which treat patients at their home by care team with frank conversation among them. Though its original objective is to treat acute psychosis, Japanese promotors use OD approach to treat social withdrawal, *hikikomori*, and developmental disorders, but its indication is doubtful. Mindfulness-based intervention (MBI), such as mindfulness-based cognitive therapy or mindfulness-based stress reduction, are also heavily promoted to treat many mental disorders mainly for depression and anxiety, but for schizophrenia. But my review on the side effects of MBIs reveals that they may worsen delusion and hallucination suggestive that mindfulness-based interventions for schizophrenia is a contraindication. As MBIs rooted Japanese tradition of Zen meditation, the

vogue in Japan now is not surprising. But we should be cautious about their adverse reaction, particularly to apply to schizophrenic patients.

In summary, Japanese psychopolitics and other vogue therapies in general lack robust evidence of their effectiveness and safety as well as outcome studies. A good intention often provokes bad consequences. For example, in Japan, a suicide prevention program known as the Fuji Model paradoxically increased suicide.

5. Conclusion: Japan as Erewhon

Japan is a weird country. Samuel Butler, 19th-century English novelist, described dystopia “Erewhon” which is an allegory of a country of odd habits. Japanese mentally-ill persons stay unnecessarily long in hospitals, without being socially included. A lot of discriminations are justified as the freedom of speech. Such bad manners are permitted because of lack of empirical thought and evidence-based policy in Japan. Without outcome studies, flowery psychopolitics have been implemented in Japan.

Thank you for your patience.

Q&A

Hwang Is the Re-Work Program just for depressed patients or for schizophrenic patients as well? How many patients participate in the Re-Work Program in Japan? Are many fields included in the Re-Work Program in Japan? Is the program successful?

Saio The Re-Work Programs are mostly for depressed patients and a little bit for the bipolar and developmental disorder patients. Each group has 8 to 10 patients for group therapies. But Re-Work Programs serve only for sick left employees with mental illness and does not support those who are unemployed or disemployed for their mental illness. Most employees would like to return to their workplaces where they belong with completing the program. The promoters of the Re-Work Programs often tells that there are many evidences of their effectiveness, but I doubt it because the researches on the effectiveness of the Re-Work

Programs is insufficient with rigor in their research design. I don't know the precise number of people getting the Re-Work Programs.

Hwang In Korea, a study was done about the absenteeism and presenteeism of depressed patients. Due to depression, their interpersonal relationship was not good with their colleagues. In Korea, it is sometimes difficult to return to the previous workplace after suffering a major depression or other mood disorders. Is it the same for Japanese workers?

Saio I think it almost the same in Japan. But for Japanese workers, it is difficult to change a company as well as changing workplaces in the company. In case if someone changes the company or workplaces, their salary and position get a downward trend. The sick employees want to come back to the same position when they are healed to the stage sustainable to work.

Yang In Taiwan, lots of companies are small. Employees have to be careful about whether their company can survive a high-competition situation. In Taiwan, most employees would like to become a government employee as government jobs guarantee lifetime employment. With regards to private companies, the situation is different from that of Japan.

Saio The largest problem in the Re-Work Program is that it is used mostly by relatively big company employees or government employees who cannot easily fired. The small company employees seldom use the program as the employees are fired easily in sickness. The fired person cannot use the Re-Work Program because the program is not designed for unemployed or disemployed persons. I think the Re-Work Program is some sort of cream skimming by mental health industries in Japan because it virtually discards poor workers.

Hwang In Korea, Samsung Electronics Company is hiring many psychiatrists for counselling their employees suffering from depression, anxiety or PTSD. Other companies, like LG or Hyundai, just hire some clinical psychologists or counsellors to provide some mental health services, but many employees are reluctant to use the counselling service as they worry about some counter benefit from the company.

Saio Most Japanese big companies, except for smaller companies, use the Employee Assistance Program (EAP) for the sake of taking care of mild mental health problems around their employees. But the EAPs would not treat psychiatric disorders and refer them to psychiatric clinics. I have been hired as the Corporate Occupational Health Manager by a big securities company. Most of my work is to provide psychiatric advices as second opinions to the company's staffs of human resources and employees who get treated at another hospital. Japanese big companies hire psychiatrists because the rash of depressive employees in their companies have occurred for years and the Industrial Safety and Health Act of Japan demands to hire industrial physicians to manage health issues around each company. But most of industrial physicians are not familiar with mental disorders which come to hire either psychiatrists aside from industrial physicians or industrial physicians familiar with psychiatry. Worryingly in such situation, most of psychiatrists do not know much about occupational mental health. Occupational mental health is a kind of niche business between industrial health and psychiatry.

The reason big companies hire psychiatrists specialized for occupational mental health like me are because the Japanese practices of psychiatry are low quality in general. Polypharmacy of psychotropic medications is still common and awful, and the doctor-patient relationship is sometimes not good. So those companies hire their own psychiatrists to protect their employees from the poor practice of psychiatric services in

Japan.

Kurihara Even if the patient goes to a famous university professor, the practice of prescription is poor. Dr. Saio wrote this in a Japanese book entitled *The Hidden Truth of Psychiatrists*.

Hwang Interestingly, mindfulness-based intervention for schizophrenia is a contraindication because it evokes auditory hallucinations and delirium.

Saio There is a small number of studies on the side effect of mindfulness-based intervention. I have reviewed and published the adverse reactions of the mindfulness interventions.

Hwang What is the reason or the components of mindfulness-based intervention?

Saio Mindfulness-based meditation occasionally provokes mania, depression, anxiety or dissociation.

Sihombing Is there any criteria for schizophrenia patients to take mindfulness intervention for severe symptoms?

Saio At least, it is not for acute phase. I think it is permissible with caution for chronic phase of schizophrenia. But it still remains the possibility of worsening of delusion or hallucination with mindfulness interventions to them because of their fragile ego boundaries.

Yang In Taiwan, with regards to mindfulness, my study works on the biological mechanism of mindfulness using functional MRI and psychological assessment as outcome variables. The study finds that GABA and glutamate levels changed and attention test performance improved after mindfulness training. The study used hyperthyroid patients who are in euthymic conditions and without any medication. This training will become better for the participants. The brain image change pattern is similar to the changes when benzodiazepine was used. Some relaxation effect is particularly seen for lots of patients.

Secondly, the brain stimulation was used to evaluate whether this effect of relaxation could be prolonged or not. Currently, samples are being awaited. Last week, the same hypothesis was tested.

With regards to some patients in meditation, there is an agreement that there could be some associated phenomenon which could become worse for schizophrenic patients. There will be another study. Some schizophrenic patients have been in post-traumatic experience of some associated experience. These true symptoms are overlapping each other. In patients with very severe association of post-traumatic symptom, their brain volume deficit correlated with their previous association of post-traumatic issues.

Some patients could be okay for mindfulness, but in others, there should be a contraindication, as their brain deficits could be existing before they experienced mindfulness. Schizophrenic patients are multifactorial and heterogeneous and need to be subtyped. For example, some patients may not be eligible for a dopamine antagonist. This is so-called treatment resist.

Currently, the focus will be to evaluate whether at the beginning the patients could be treated using different pharmacological strategies, as at least 10% to 30% are always treatment resist, even in those patients where dopamine blockade is being used. A large number of patients have induced EPS. However, their hallucination exists forever. These patients are only dopamine-treatment resist, not treatment resist. Another neurotransmitter or strategy could be better, but the patients should be treated earlier and not just for long-term goal when their brain has been damaged.

Hwang It is true that meditation does make some biological changes in the brain. Some vulnerable schizophrenic patients who may be influenced by meditation should be selected.

Yang The subpopulation, that has been mentioned, is totally a contraindication for that.

Clinical development of new pharmaceuticals – Trouble with paliperidone palmitate in Japan

Takeo Saio

1. Trouble with paliperidone palmitate

Next I will make a presentation about the rash of deaths of patients suspected adverse drug reaction (ADR) at the time of launch of once-monthly paliperidone palmitate long-acting injection (PP-LAI) in Japan (Table 3). PP-LAI is already sold in USA (from 2009), EU (from 2011), China, Korea, Singapore, and Thailand.

PP-LAI was launched in November 2013 in Japan. As 21 deaths among about 10,900 patients were reported within 5 months of its launch, the regulatory authority on pharmaceutical affairs in Japan (the Pharmaceuticals

Table 3　Chronology around PP-LAI ADR issue in Japan

- Product launch in Japan: Nov 19, 2013
- Until Apr 16, 2014, 21 death among about 10,900 patients /PMDA warning "Blue Letter"
- 110th Scientific Meeting of JSPN; Urgent educational lecture
  - The risk of all-cause mortality on PPI-LAI was not high in comparison with other investigations.
- In Nov. 26, 2015, Committee on Pharmaceutical Affairs (CPA) of JSPN issued a position paper
  - It urges to use paliperidone palmitate products a) complying the direction of the package insert, b) to administer stable patients with good general condition, c) gradual increasing of dosage.
  - Preferably, PP-LAI should be switched from oral preparation of paliperidone after administration of at least 1 month of oral dosage.
  - No other co-administered drugs are recommended.
- In Jun 21, 2016, NPO-COmmunity Mental health & welfare Bonding Organization (COMBO) called MHLW for close investigation based on their analysis of cumulative data on death after products launch
- In Mar 4, 2019, CPA issued a follow-up report
  - It affirmed PP-LAI doesn't increase the risk of death if properly used because the risk of death is equivalent between PP-LAI and schizophrenic patients in general.
  - Based mainly on 1 year post marketing surveillance (PMS) data of 1,309 patients by the manufacturer in Nov 30, 2017.
- Until Aug 31, 2019, 221 deaths

Table 4　Japanese system of safety warning [*6]

Under Article 68-9 of Act on Securing Quality, Efficacy and Safety of Pharmaceuticals, Medical Devices, Regenerative and Cellular Therapy Products, Gene Therapy Products, and Cosmetics (Pharmaceutical Affairs Law) of Japan

- **Yellow Letter**
  "Dear Healthcare Professional Letters of Emergent Safety Communications"
  - contains emergent and important safety information about drugs and medical devices.
- **Blue Letter**
  "Dear Healthcare Professional Letters of Rapid Safety Communications"
  - contains information that does not require emergent communications as Yellow Letter but should be promptly provided to alert healthcare professionals.

[*6] PMDA. The Yellow Letter / Blue Letter. [Cited 2021 Jan 4th] (Available from: https://www.pmda.go.jp/english/safety/info-services/drugs/esc-rsc/0001.html)

and Medical Devices Agency: PMDA) ordered to its manufacturer to issue a warning-the Blue Letter warning (Table 4).

The Committee on Pharmaceutical Affairs of the Japanese Society of Psychiatry and Neurology (JSPN), I myself is one of the members, issued an advisory twice on this issue. For the former statement of 2015, it is cautious with the drug. Four years later, the second statement of 2019 is affirmative for the drug.

In 2016, an NPO issued an analysis of post-launch data of death. It was shocking because the cumulative number death from the launch of the drug were extraordinary larger than that of other LAIs and paliperidone oral formula.

2. Recent update and remaining issues

For about 15 years, we have insisted to establish Japanese CDC (Center for Disease Control and Prevention) to investigate rash of diseases and death of unknown origin to prevent so-called "drug-disaster" such as salidomide affairs and so on. But the Ministry of Health and Welfare have been hesitating to set such independent body to investigate drug adverse reaction. On the PP-LAI affairs, early survey was not conducted by the government. There is no well-designed epidemiological study that clarify causal inference on the adverse effect of the drug. The truth is shrouded in darkness. No one can say what happened then.

Most Japanese psychiatrists regarded this affair due to polypharmacy. Untill now, there is no clarity about the causal relationships. It is now prepared to apply for approval every 3-month paliperidone palmitate long-acting injection of paliperidone. Can the 3-month injection of paliperidone get approval regardless of the 1-month PP-LAI in trouble?

Thank you very much for your patience.

Q&A

Hwang It is unbelievable to see that there were many deaths with the paliperidone injection. In Korea, there were no deaths.

Yang The Taiwan TFDA does not do any regulation after post-marketing surveillance (PMS). After the launch, there is no obligation to report any update on mortality cases for new drugs to the government, FDA or TFDA. PMS could be extended longer when each drug is launched.

Pitfall for Each Clinician: On their phase IIIB studies, the recruited patient number could be several hundreds. The only problem is that several hundred was not reach large enough to detect mortality.

Kurihara Japanese regulation is quite strict for PMS, however, number of surveyed patients is limited, and actually under control of medical representatives from a company. The pharmaceutical company conducted PMS on paliperidone. The information on the accumulation of deaths was released before completion of PMS.

At the time of issuing the first position paper, I was also a member of the Pharmaceutical Affairs Committee of JSPN. At that time, the Committee Chairperson as well as some committee members regarded that we should make caution even before the completion of the PMS; meanwhile, there were also other opinions that we should wait for the result of PMS. After that, in 2017, PMS showed that there was no increase of death.

Now, at the time of second report, the majority of Pharmaceutical Affairs Committee of JSPM seem to be supportive to the result of this PMS, although inconsistent with the result of NPO (COMBO). I am worrying about the possibility influence of conflict of interest of the JSPN Committee members. I think there is a possibility that polypharmacy may have caused excessive death.

Hwang In the committee, there should be some review for the mortality case. How long or for how many months did the patients receive the injection?

Saio Before they died, most of the patients received just 1 or 2 injections, so it was not very long.

Hwang There was a mention about the polypharmacy pattern of Japanese psychiatrists. With regards to the mortality cases, are there any other oral antipsychotics combined with the injection?

Kurihara It is an assumption that antipsychotics are combined with the injection but there is no scientific evidence.

Hwang The prescription pattern of these mortality cases is very important. In Korea, paliperidone or Abilify's Maintena are started without any polypharmacy in the initial stages of the treatment. Is it right that many Japanese psychiatrists prescribe newer medication plus injection, as a mega dose, in the initial stages of the treatment?

Kurihara Some members of the previous committee assumed that and they wanted to conduct some study. However, the committee's power is not enough to conduct such epidemiological study. Some members wanted to wait for the results of the PMS.

Saio Another interpretation I think is that there may have been some problems in manufacturing or transportation. In such a case, my argument is that a Japanese CDC could investigate related bulks or lots directly.

Hwang The situation is same for all products imported to other Asian countries.

Sihombing Is there any information on the mortality data?

Saio With regards to post-mortality evaluation, only one autopsy was done (syndrome malign).

Yang Maybe this polypharmacy and the long-acting injection may have some bad effect on liver, lung or other internal organs. Is there any evidence about the cause of death?

Kurihara As of now, there is no in-depth analysis.

Yang What are the adverse events caused in other paliperidone injections? Compared to PMS results, do the pharmaceutical companies suppose the mortality situation before the launch of the study? Do they show any differences? Before the drugs are launched world over, many studies and trials are conducted, so they should have collected the clinical data to explain the mortality and the causality.

Kurihara In the situation of clinical trial before approval, there is no such problem. Just after the marketing starts, there is an increase in the number of deaths. At the time of PMS result, there is no significant difference. The information has to be followed.

Human Rights of schizophrenic patients

Tiur Sihombing
Division of Community Mental Health, Duren Sawit Mental Hospital Jakarta, Indonesia

1. Human rights issues in Indonesia

I will be presenting about Human Rights of Schizophrenic Patients in Indonesia.

There is no conflicts of interest.

With regards to human rights issues in Indonesia, community based is PASUNG and hospital based is RESTRAINT.

Has anyone ever seen this picture before of PASUNG?

PASUNG is a wooden frame that is attached to the feet, hands or neck. With a tree trunk that has been cut, the legs are stretched and shackled. Is it not scary? In Indonesia, PASUNG is an old-fashioned traditional way of dealing with people with mental illness.

This is a PASUNG. This is a research on PASUNG of some places in Indonesia.

Some mental disorder people are in PASUNG in the open, as indicated in the left picture, while the right picture indicates that some people are in PASUNG in a small isolated space.

The last data is from February 2019. There were about 22,296 people. The three biggest provinces are in Jawa Islands. The biggest one is in East Jawa, with about 3,700 people. With regards to Jakarta, it has the third smallest number in Indonesia. Indonesia has 34 provinces, about 11,000 islands, with a population of about 250 million people (Fig. 1).

These are the reasons why PASUNG is done (Table 1).

First may be due to aggressive and agitation behavior of mental illness people. Actually, it can be preventable and manageable.

Second is for protection from violent risk, missing and accident and the lack of understanding, misperception and negative perception about mental illness. Mistreatment happens when it is assumed that PASUNG is a therapy. Inaccessible or unaffordable health services. Unsatisfied experience related to health services. Family cannot look after and help people with mental illness, especially in acute phase.

Fig. 1　The number of people with mental disorder who are put in a PASUNG by province in 2019

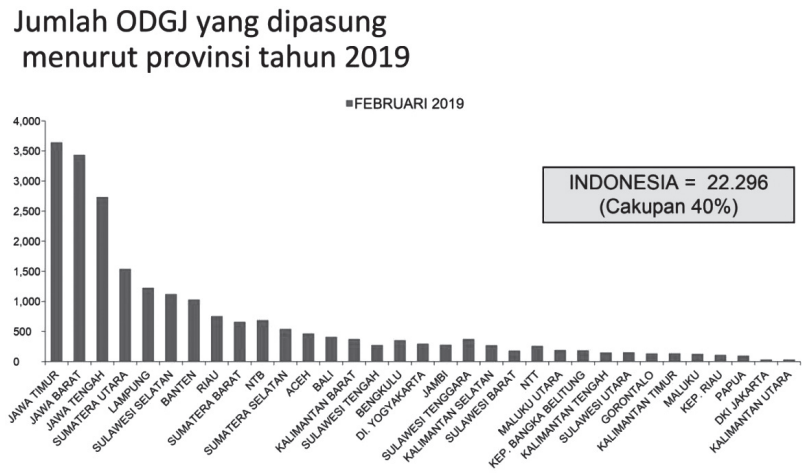


Table 1　WHY do they PASUNG?

a. **Aggressive and agitation behaviour – preventable and manageable**
b. Protection – violent risk, missing, accident
c. Lack of understanding, misperception, and negative perception about mental illness
d. “Mistreatment” – pasung is a “therapy”
e. Inaccessible or unaffordable health services
f. Unsatisfied experience related to health services
g. Family can't look after and help people with mental illness especially in acute phase

Minas, Diatri, 2008, Minas, Puteh, 2012

2. Basic health research, 2018

The proportion of families that have family members with schizophrenia who were put in a PASUNG in 2018 is reflected here. About 14% of families have done PASUNG. About 31.5% of families have done PASUNG in the last 3 months. This data is based on Basic Health Research, 2018.

The proportion of families that have family members with schizophrenia who were put in a PASUNG based on their residential area in 2013 and 2018 is reflected here. In urban area, it was about 10.7 in 2013 and it was the same in 2018. In the rural area, it was 18.2 in 2013 and decreased to about 17.7 in 2018. In the whole of Indonesia, in 2013 it was about 14.3 and decreased to 14 in 2018 (Table 2).

Treatment Coverage for Schizophrenia in 2018: People with schizophrenia who got treatment was about 84.9%. People with good compliance was about 48.9%.

There are many reasons for not routinely taking medication in the past 1 month based on Basic Health Research. It is about 36.1% for people that maybe feel healthy. It is about 33.7% for people who will not visit their doctors. It is about 23.6% for people with insufficient money to buy medicines. It is about 7% for people

Table 2 The proportion of family that have family members with Schizophrenia who are put in a PASUNG based on their residential area

	2013	2018
Urban	10.7	10.7
Rural	18.2	17.7
Indonesia	14.3	14

Basic Health Research, 2018

Table 3 Treatment coverage for schizophrenia in 2018

- Get treatment: 84.9% --> have a good compliance 48.9%.
- Many reasons for not routinely taking medication in the past 1 month:
  - feel healthy: 36.1%
  - won't visit their doctors: 33.7%
  - insufficient money to buy medicine: 23.6%
  - feel uncomfortable with side effects: 7.0%
  - often forget to take medicine: 6.1%
  - feel the dosage is inappropriate: 6.1%
  - medicine is not available: 2.4%
  - others: 32.0%

Basic Health Research, 2018

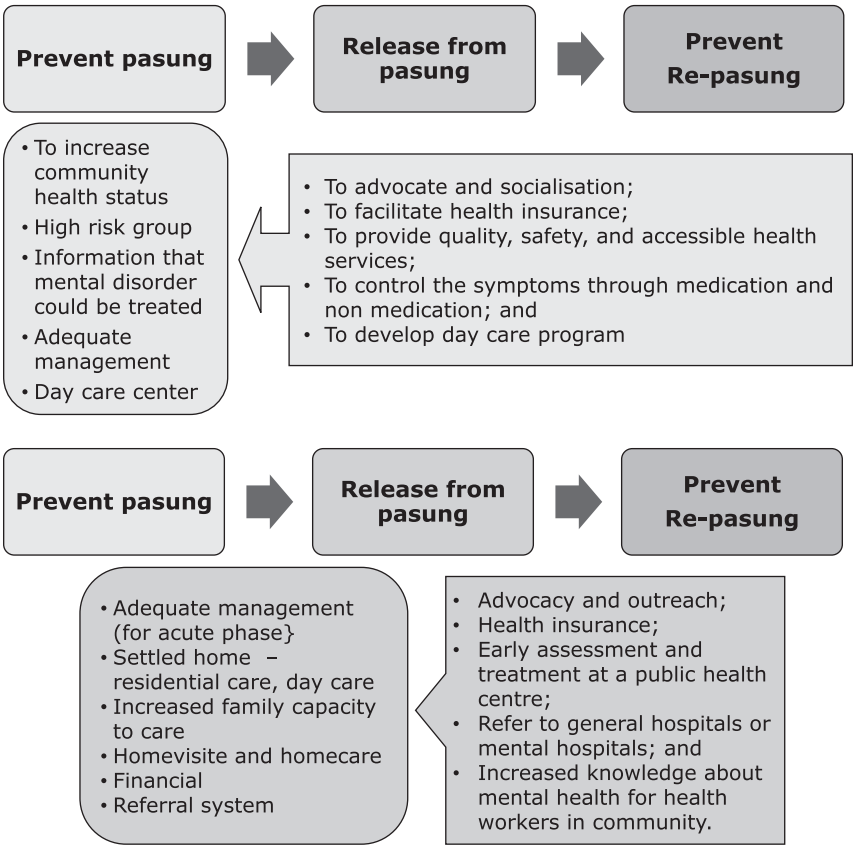
who feel uncomfortable with side effects like EPS. It is 6.1% for people who often forget to take medicines. It is about 6.1% for people who feel that the dosage is inappropriate. It is about 2.4% for people who feel that the medicine is not available. Other reasons constitute 32% (Table 3).

3. Elimination PASUNG Program (Fig. 2)

First is Prevent PASUNG which looks to have advocacy and socialization; facilitate health insurance; provide quality, safety, and accessible health services; control the symptoms through medication and non-medication; develop daycare program; how to increase community health status, focus on the high-risk group, give information that mental disorder could be treated and give an adequate management and provide daycare center.

Second is how to release from PASUNG which looks to have advocacy and outreach; health insurance; early assessment and treatment at the Public Health Center; refer to general hospitals or mental hospitals; and increased knowledge about mental health for health workers in the community. These results are from Minas and Diatri, 2008; Minas and Puteh, 2012. The patients can get adequate management for acute phase; have a settled home like residential care and daycare; increased family capacity to care; home visit and homecare; financial; and referral system.

Fig. 2　Fig. 2 Elimination PASUNG Program



Minas, Diatri, 2008, Minas, Puteh, 2012

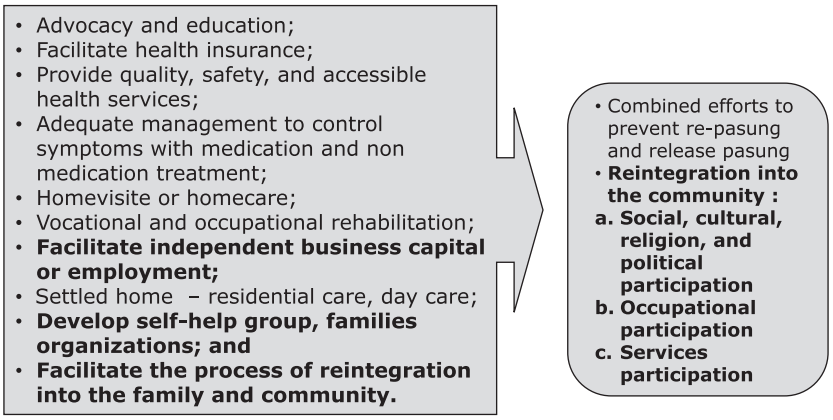
Third is how to prevent Re-PASUNG which looks at combined efforts to Prevent Re-PASUNG and Release PASUNG; reintegration into the community; social, cultural, religion and political participation; occupational participation; services participation; advocacy and education; facilitate health insurance; provide quality, safety and accessible health services; adequate management to control symptoms with medication and non-medication treatment; home visit or homecare; vocational and occupational rehabilitation; facilitate independent business capital or employment; settled home like residential care and daycare; develop self-help group, families, organizations; and facilitate the process of reintegration into the family and community (Fig. 3).

4. Mental Health Law

In 2014, 5 years ago, Indonesia came up with a Mental Health Law. This is the Mental Health Law, Chapter 1 Article 3.

Mental health efforts aim to guarantee that every person can achieve a good quality of life; have a healthy mental life, free from fear, pressure and other distractions that can interfere with mental health; guarantee that

Fig. 3 Prevent re-pasung



Minas, Diatri, 2008, Minas, Puteh, 2012

every person can develop a variety of intelligence potential; provide protection and guarantee service mental health for people with mental disorder-based human rights; provide integrated health services, comprehensive and sustainable through effort promotive, preventive, curative and rehabilitative for people with mental disorder.

Guarantee availability of resources power in Mental Health Efforts; improve the quality of mental health efforts accordingly with the development of science and technology; and give an opportunity to people with mental disorder to be able to obtain his/her rights as an Indonesian citizen.

5. National Health Insurance

In Indonesia, health insurance guarantees have actually existed since the Dutch colonial era. After independence in 1945, efforts were made to guarantee the need for health services for the community, especially government employees and their families only.

In 2005, Indonesia came up with a Health Insurance Program for poor families, for as many as 60 million people.

In 2014, Indonesia formed the Health Social Security Organizing Agency which is a public legal entity that reports directly to the President and has the task of organizing National Health Insurance for every Indonesian.

Data from 2019 shows that about 83.94% of Indonesia citizens, or about 221,580,743 million people, had registered for the National Health Program.

6. Post-PASUNG challenges

The precipitating factors are social interaction and activities, self-stigma, family conflict, prevent relapse, heart problem, self-care, community belief and productive activities.

The precipitating factors are access to services, knowledge, homecare, belief, community stigma, family

conflict, economic burden, worries and fears.

Duren Sawit Hospital has a special ward for patients with mental disorders, comorbid with physical symptoms. Sometimes, patients suffer from anemia, malnutrition, diarrhea or something that needs blood transfusion IVF or nasogastric tube. As patients do not cooperate with the medication, they have to be restrained.

This is the sample restraint for schizophrenic patients during blood transfusion because they always pull out the tubes.

7. Standard operational procedures for restraint

Wearing a safe and comfortable restraint. At the Duren Sawit Hospital, nurses developed a safety restraint called *SIWA* which comes from the names of the two nurses, *Sigit* and *Wawan*. This is a very safe and comfortable restraint for patients. In the restraint procedure, one nurse acts as a team leader. Before restraining, the purpose, procedures and duration of restraint is explained to the patient and the family. An informed consent is obtained. It is important for the nurses to know the restraint technique.

The problem is restraint. Does it violate human rights or is it for saving lives needs to be discussed.

Thank you everyone for your attention.

Q&A

Saio Is the PASUNG procedure prohibited by the Mental Health Law or not? Is it not a human right violation? Is it Illegal or legal?

Sihombing It is illegal but the government cannot do anything about it. It is traditional. Indonesia has about 1,000 or more than 1,000 ethnics who still believe that mental illness is a curse, so PASUNG is a kind of therapy for them.

Yang In medical prospect, PASUNG might feel like a criminal activity. However, from an indigenous prospect, it is a religious behavior.

Kurihara Is it that the government cannot prohibit it since it is a religious belief?

Sihombing After maybe two decades, the government has prohibited it and now the number of PASUNG has decreased. In Indonesia's capital city of Jakarta, the number is not too big but it exists. Doctor or mental health professionals just educate the family or caregiver and bring the patient to the mental hospital for medication.

It is not easy to deal with belief, religion and traditional customs. People need to be educated by raising awareness about mental health. With regards to a procedure, there is the PASUNG outreach. A doctor or a nurse from a mental health center come for a home visit and educate the family to bring the patient to the hospital. There is no punishment for the family.

Kurihara Is there such kind of caution from the United Nations' Committee? The Japanese have already experienced such criticism from the UN Committee of Human Rights. How is it for Indonesia?

Sihombing Indonesia is aware about the human rights. As a psychiatrist, it is the job of the mental health workers to educate, keeping in mind the beliefs and religion as they cannot be excluded.

Saio In terms of the statistics of PASUNG, Jawa province and Sumatra are the top four provinces. Is it

due to any special religion or traditional influence? What is the reason for so many PASUNGs in Jawa province?

Sihombing The population density is higher. The proportion is not high because the population in Jawa Island is huge. About 41% people live in Jawa.

Saio Keeping this in mind, the data should be changed to maybe per 10,000 population to look at how many PASUNGs exist. The religion or any local influences on PASUNG can then be compared. What is the most influential religion to PASUNG?

Sihombing Indonesia has five religions. It is not only about religion but also about the traditional culture. Some religions do not agree with the practice of PASUNG. The most difficult thing about traditional culture is that it is strong, and there is some stigma attached to it.

Yang The alternative resolution for PASUNG is the National Health Insurance launch which could provide more friendly and more resourceful treatment to lots of patients. The friendliest patients do not struggle with this problem by themselves. PASUNG may be one of their choice in such a mental condition where they try to solve their problem. If a better choice can be provided, they could move to it due to the belief that the counter treatment could be better.

It is good to know that Indonesia has a National Health Insurance Program. The question is why only 84% of citizens have the Health Insurance Program? Why is it not 98% or 99%? Even the citizens who have the Health Insurance Program, why are they suffering?

Sihombing Since Indonesia is scattered, it could be that some remote areas did not get the information about health insurance. The government will cover the areas gradually.

Yang For the Health Insurance Program, do Indonesian citizens need to pay entrance or any insurance fee or not; or anyone could be serviced by this program?

Sihombing There are levels; first, second and third, according to which people have to pay to the government. It is free for poor families. It resembles the US' Medicaid which is for poor people. Unfortunately, private insurance does not cover mental health disorder since this is National Insurance. It is public. It is not private. But it is National Health Program.

The reason why patients like to see the doctor in the hospital is because all the medications, like Quetiapine, Seroquel, are covered for 28 days as they are expensive. One tablet of Abilify costs about US $3 in Indonesia. The duration of prescription is 28 days for one period. After 28 days, the patients come back to the hospital to visit the doctor. The patients come to the hospital once a month.

Saio It was also mentioned that the families that treat patients with PASUNG is only 14%. Is there any pressure from the family members or the community to make a psychotic patient a PASUNG? Are there complaints from neighbors or any decision-making from the town or is there such kind of behavior in an urban or a rural setting? The question is: If the family does not want PASUNG but the others want PASUNG, what happens?

Sihombing In rural areas, people might be very annoying and aggressive towards psychotic patients. There is a pressure from the community as well. Usually, the families do the PASUNG as they are under pressure from their neighbors. They also do it due to lack of knowledge or information. This is also because the families are poor and due to beliefs in the traditional culture.

Kurihara In Japan, there are many people who are in the situation of restraint.

Saio There was a big scandal when a New Zealander suffering from bipolar disorder died due to deep vein thrombosis because of too long restraint in a Japanese hospital.

Sihombing In rural areas, it may be that people are only aware about PASUNG for as long as 10-20 years. People who get PASUNG become atrophied and cannot walk again sometimes until they pass away. Restraints are only done in the hospital and they are done for 15 minutes only. It is not for too long. If the patient is in a good condition, is stable and not aggressive, the restraint is removed.

Kurihara What proportion of people of PASUNG are moved to restraint situation?

Sihombing I do not have the statistics.

Kurihara In absence of any statistics, how is the compliance? Is it that many of the hospitals follow the SOP or only some hospital follows?

Sihombing A majority of the hospitals follow the SOPs. This is why a discussion is required to decide if it is restraint. What is the opinion with regards to PASUNG violating human rights or it being lifesaving?

Yang Under special circumstances, the physician orders a patient to be restrained as there could be delirium, psychotic thoughts or aggressive behavior. In Taiwan, this is done under special situations. But the patient needs to be checked on every 15 minutes, and it has to be recorded. Every 4 years, the medical accreditation reviews this record. If the record is not good enough, the hospital can lose its license to operate. Although restraint is important, there should be quality control.

When it comes to the safety of each building, care has to be taken that when the patient needs to be transported outside of the building in case of an earthquake or a fire. This is important for the safety of patients in Taiwan.

Saio The accreditation process appears to be quite strict in Taiwan. How about Korea?

Hwang It is the same. There are review committees. The National Human Rights Commission investi-

gated many mental hospitals on human rights situation.

The Human Rights Commission in Korea is immensely powerful and is above the law. In terms of informed consent, physical restraint is usually used in very urgent conditions of psychotic patients. Is it possible to get some informed consent from the patient to be restrained?

Sihombing Informed consent is given in advance for the first time on admission.

Yang Yesterday, there was a mention that in Indonesia about nine psychiatrists serve a huge number of patients. Today, you said that Indonesia has launched the National Health Insurance Program. The service demand has probably increased in the market as most of the decision could be to get some benefit from this program. How is the situation of not having enough psychiatrists dealt with? Since there are not enough human resources, how is the situation balanced? As the National Health Program has been launched, there might be a lot of unmet demands as lots of patients could say that they need mental health services but there are not enough psychiatrists to provide the services.

Sihombing We do not experience such problems.

Hwang There might not be much demand or need for hospitalization. In Duren Sawit Hospital, nine psychiatrists cover 225 inpatient beds. Their condition is better than Korea. According to the Mental Health Act of Korea, one psychiatrist can take care of 60 or up to 60 and no more than 60. The condition of psychiatrists in Duren Sawit Hospital is better than the reality of Korean mental hospitals. Duren Sawit Hospital is a good hospital.

Yang This is a comparison between the psychiatrists' numbers and the total population, as to how much population from each country does each psychiatrist serve. In Taiwan, each psychiatrist serves around 20,000 general population. In terms of manpower comparison, Taiwan is equal to UK, but lower compared with Canada, Australia or the US. In terms of Indonesia, what is the ratio? How many patients does each psychiatrist serve?

Sihombing It is 250 million divided by not more than 2,000 psychiatrists. One psychiatrist has to serve around 12,500 patients.

Yang Taiwan has only 10% of Indonesia's population. But Taiwanese psychiatrists see around 2,000 patients. Indonesian psychiatrists should serve tenfold the population of Taiwan.

Sihombing This is the reason why in rural or in remote areas, traditional healers are everywhere.

The Key Strategies for treating severe mental ill (SMI) patient in Taiwanese community

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1. Psychiatry/Community care for Mental Health Disorder

I will briefly introduce/extend my report of yesterday.

This is my conflict of interest.

With regards to psychiatry or community care for mental health disorder, the issue of budget allocation is not the government's priority as they would like to utilize the money for other purposes. If the government allocates the budget, the citizens could be more in favor of community psychiatry.

2. Treating early psychosis

In Taiwan, useful data was generated to convince the government to pay attention towards treatment of early psychosis. It is not easy to build a relationship with the legislators. Importantly, the government needs to be persuaded to change their behavior using an appropriate news that has impacted the society.

Nationwide data was collected to persuade the government to think on the issue of treating early psychosis. Currently, there is no plan to treat patients diagnosed with psychosis as early as possible in Taiwan. The patients with longer illness duration are just sent to rehabilitation. Most patients with psychosis need rehabilitation in case of chronic causes. The best way from the viewpoint of public health principle is treating patients as early as possible. This is our mission.

The government needs to be persuaded about limited budget. Budget needs to be allocated more effi-

[*7] Disclosure: Conflict of interest
- Honoraria:
  Astra-Zeneca, GlaxoSmithKline, Eli Lilly, Pfizer, Janssen-Cilag (J&J), Wyeth, Otsuka, Fujsawa (Astellas), Sanofi-Aventis, Organon (Schering-Plough), Servier
- Advisory board:
  Jassen-Cilag (J&J), Pfizer, Eli Lilly, Lundbeck
- Research grand:
  GlaxoSmithKline, Eli Lilly, Pfizer, Janssen-Cilag (J&J), Sanofi-Aventis, Wyeth, Otsuka, Astellas, Dai Nippon Sumitomo, Atomic Energy Council, Lundbeck, Roche, Mitsubishi Tanabe, Boehringer Ingelheim

ciently. This can be possibly encouraged by using a long-acting medication as it could reduce human resources costs. It has been particularly well established that in a lot of cases the patients were rightly diagnosed.

3. Suicide prevention

Although the National Center for Suicide Prevention has been established, most workers pay more attention towards patients with depression or mood disorder. They do not pay attention towards patients with severe mental illness. This data of schizophrenia in Taiwan is used to inform the workers that the standardized mortality ratio of death with committed suicide is quite high compared to metabolic issue, pneumonia or cardiovascular issue.

After the status is defined by the government, they will educate the community staff working in the community for the purpose of suicide prevention. The staff needs to cooperate with the community and mental health nurses to help them develop their skills, try to pick patients with mental illness and try to notice early signs of suicidal behavior. Quite importantly, this data could be used to persuade the government to change or modify their behavior or the training program for the staff.

4. Five critical issues

4.1 SMI Patients with disturbing behavior

There are five issues that I will elaborate on.

Table Current issues in Taiwan for mental health

1	SMI patients with disturbing behaviors
2	Budget of health care for SMI
3	Substance use
4	More elderly patients in community, long term care
5	Early intervention problem

Currently, the most important issue is that of patients having a disturbing behavior in the community. However, they are not serious enough to be admitted into the hospital. The citizens, and even policemen, think that the patient is disturbed. When these patients are sent to the hospital emergency, the psychiatrist cannot admit them into the hospital and they should be discharged. The psychiatrist refuses to hospitalize such patients as their aggressive behavior is not to attack others or cause self-harm. The is the currently law regulation in Taiwan. Unfortunately, when these patients return back to their homes, sometimes, they create nuisance. Due to this, the neighborhood gets angry. This is a very difficult issue to deal with.

After discussion, the government stated that if possible, they could come up with some program, like day-care or rehabilitation program. However, lots of patients refused to enroll for such programs.

It is possible to empower the Community Mental Health Center (CMHC). They have an outreach center, where a psychiatrist, a nurse and other psychologists try to provide services if unstable patients with SMI were noted in community. This needs to be supported with a huge budget. Each area has such Community Mental Health centers (CMHCs) that admits patients that refused treatment as their health insurance company could not cover the costs. The government should take the role of funding for such patients. Currently,

this is an unresolved problem in Taiwan.

4.2 Budget of mental healthcare for severely mentally Ill

Although the demand for medical care with SMI is not so high (direct cost), the entire indirect cost is very high. This cannot be paid through health insurance. Not much attention is paid to Health Insurance Program. Although this program is public, more high-level government officials need to be informed about the huge costs, so that they can allocate more budget to help these patients.

Other than the programs for community mental health nurse or special community worker for suicide prevention, the government specifically created a special program for the patients who have some problem. It is mostly social workers or clinical psychologists who try to serve such patients. This strategy is being used to try to negotiate or discuss with the government to allocate more budget for them.

This data shows that if patient functionality is improved, the cost could be decreased.

The problem for all of mental healthcare, not just severe mental illness, is that only 6.5% of GDP is allocated for the health budget in Taiwan as compared to the US or Canada, where it may be higher than 10% of GDP. Although it is significant, it has become impossible to increase this percentage. For percentage, it is the upper limit. Each specialist try to protect their own percentage. This is similar to each country to protecting their territory. The government needs to reinject a budget for some special programs, like substance abuse. As of now, substance abuse as well as a compulsory hospitalization have been excluded. To cater this, the budget needs to be expanded.

The mental health budget includes inpatient care is only 4% of total national health budget in Taiwan. This is very low. Compulsory admission is directly budgeted from the central government. It is not covered by insurance.

The government has another compulsory community care. After discharge and return back to the commu-

nity, if it is proposed or predicted that a patient's adherence is not good, the psychiatrist could initiate the Compulsory Community Treatment Program. If the patient in the community refuses medication, policemen can accompany psychiatrists or nurses to inject the patients at their home.

Compared to hospitalization, community care is compulsorily less restrictive. It is better than compulsory hospitalization. Although this regulation is good, this law is used less. When we need to operate and ask the policemen to accompany us, they try to refuse and say that there are many issues and it is not their obligation.

Additionally, our health insurance program has reimbursements that could provide homecare services. For psychiatrists, it is once a month and for a nurse, it is twice a month visits to the patient. If it is claimed that a patient should receive compulsory community services, the psychiatrist/nurse will receive the same reimbursement but there is a lot of paperwork.

In terms of a patient's human rights, if a patient wants to receive homecare services, the psychiatrist would need the patient's consent, so as not to violate the human rights. The psychiatrist would prefer to persuade the patient to issue a signed consent so that they can be provided the services.

The counter issue is that the Mental Health Insurance Program has to come up with public sector's Community Health Program. The health professionals need to be aware that the budget that comes from the national health insurance is not always enough. The government needs to provide more budget for this.

4.3 Substance use

Another issue is substance abuse.

Combined with substance abuse and others, currently it is easy for psychiatrists to receive funding from the government. This is because compared to traditional severe mental illness, the government pays more attention towards substance abuse. Currently, the budget for substance abuse in psychiatry has increased dramatically, but it is always the same for severe mental health illness.

Furthermore, the National Health Insurance Program does not renew imbursement for substance abuse. The government needs to pay more attention towards this. There are specific programs for treating alcoholism, opioid use and amphetamine-dependence. Currently, lots of traditional drug-dependence problem is not very difficult. It is more difficult to deal with the newer drugs as their composition is not well known. Drug dealers with pharmaceutic skill make new drugs and launch them without TFDA approval. This is very dangerous as it is not known how damaging or effective the drugs are for our brains.

Unfortunately, it has become a business in Taiwan. Lots of these drugs are sold as small coffee packets that are attractive and delivered as a free sample. Several days or weeks later, people can independently buy these. Some teenagers, adolescents or young adults buy these illegal drugs in pubs or other areas, where these drugs are easily available. In Taiwan, this is currently a difficult issue to resolve. The authorities have no idea about how to cope with this issue.

4.4 More elderly patients in community, long-term care

Another issue is more elderly patients in the community.

Our 2 years' proposal will help the government to analyze. The government has allocated some budget for the community care case manager. This project is combined with the Health Insurance Program which also

provides a case manager for severe mental illness. These two programs are put together to find their efficacy. When surveyed 3 years later, it still had significant better results from a nationwide cohort. Allocating some budget for community case manager system is important to improve the quality of care for patients with SMI.

The hospital and the basic staff could not afford long-term care during each visit. In Taiwan, during each visit, the law regulation states that a patient with severe mental illness should be reported. When the patients are discharged from the hospital, they should be reported to the authority of health administration. The authorities assign a case manager who will manage and remind the patient to followup at the hospital clinic. If the patient fails to followup, the authorities inform the hospital who in turn discontinue the patient follow-up.

The health insurance is also a special program. If these patients are treated regularly, the medical personnel receive extra rewards from health insurance program. This system ensures that adherence improves. More money needs to be allocated for this process. This study analyzes the result for each case received during the past 10 years. We can find and compare whenever the patient received this treatment before. Using the past 3 and the next 3 years as a comparison, we can find if their hospitalization rate had decreased remarkably.

This year, the Taiwan population decreased greatly, like in Japan. Birth rate is less than the mortality rate. In Taiwan, the total number of population decreased greatly since last month. Two years later, the population of more than 65-year olds will increase to be 20%. The society elderly community is similar to Korea, Japan and Taiwan. Long-term care is very important, although it is another program.

The issue is that for a patient with severe mental illness, it is very difficult to use so-called long-term care. For long-term care, assessment based on Activity of Daily Living (ADL). When the outpatient receives long-term care ADL assessment, very mild degree of disablement is noted as the allocation of resource will be very limited. The ADL assessment needs to be modified as there could be a difference between other disabled patients and the patients with mental illness.

It is possible that patients with SMI could use other ADL assessment tools. the traditional tool is to emphasis how to measure the disability level of physical handicap, like difficulty in walking or climbing upstairs. The patient with is okay with this aspect. This is an unresolved and a difficult problem that will become a huge debate. They want to keep their resources and we need to reallocate some resources back to the mental health space. There will be three categories of long-term care program for elderly individuals in Taiwan in near future which will be general individuals, dementia, and SMI individuals.

4.5 Early intervention problem

The issue of early intervention problem is very difficult as it is not popular in every country. Korea and Hong Kong have some special programs for this issue. Which program has the best efficiency, not like as a long-acting program, is well established. Early intervention is very critical for treating patients.

The government will be persuaded to allocate funding for three centers to initiate, establish or integrate other countries' experience and try to help with it. There is a special program for child and adolescent mental illness. There are many child psychiatrists, as school teachers are not familiar to picking children with mental illness in the early stages. In case of children with early stage mental illness, schoolteachers used to send them to psychologists. Some school psychologists do not have good training when it comes to mental illness

for children. For this reason, the connection needs to be resolved.

Our hospital has special outreach for child psychiatrists funded directly from the central government. Each elementary or junior high school psychologist is helped to collect data about some of their students with mental health problem. It could be autism, ADHD or early psychosis. These students are then persuaded to visit the hospital. Some special out-reach program could be also developed for this purpose. That is the intention in the future.

5. Functional assessment tool

I would like to introduce my work as this is a very useful tool. Although evaluating functionality is quite important, functional assessment could take a long time. This cartoon and a big picture was developed. The English version has been published in Schizophrenia Research. It can be downloaded from the journals[*8].

It is quite easy for a patient to evaluate themselves using a separating scale. If the clinic outpatient number is huge and the physicians do not enough time to evaluate the patients, they can rate themselves using a separating scale. A record of patient's functionality on each visit can be easily maintained. Since each clinic is comprehensive, they are persuaded, not just to prescribe about hallucination or delusion only, but to have more and more detailed data about their functionality. This scale can also save time in clinical practice.

Q&A

Sihombing Do you administer long-acting injection to people with mental illness and aggressive behavior in community setting? Why are you not using short-acting injection?

Yang When patients are discharged from the hospital, their adherence is not good. In such situations, they are administered long-acting injection. In acute stage, short acting is a priority. For a patient in homecare services, we know that a patient had discontinued refills of our medication for 3 months before his hospitalization. After hospitalization, at the initial stage the plan is to inject the patient again.

In Taiwan, the acute phase hospitalization duration should be less than 30 days, although it is difficult to evaluate its adverse effect. It should be ensured that the patient uses long-acting antipsychotic. These patients are chronic and are re-hospitalized many times. They are injected immediately to evaluate whether for the next injection the dose needs to be increased or decreased.

Sihombing What is the duration of stay in the hospital for acute stage? Is it less than 30 days?

Yang Most patients return back to the community. If the hospital stay is for more than 30 days, the health insurance payout decreases. The health insurance manipulates the psychiatrist's behavior.

Sihombing In Indonesia, the regulation is 21 days or less. After this, they could shift to another clinic or discharge directly. In terms of substance abuse, the government covered the budget increase. In Indonesia, when it comes to substance use, Duren Sawit Hospital services opioid dependence. Suboxone is used.

Yang In Taiwan, suboxone and methadone were evaluated. Methadone was chosen as it is cheaper than

[*8] Bai YM, Hsiao CY, Chen KC, Huang K-L, Lee IH, Hsu J-W, Chen PS, Yang YK: The development of a self-reported scale for measuring functionality in patients with schizophrenia—self-reported version of the graphic personal and social performance (SRG-PSP) scale. Schizophrenia Research 2014 Nov; 159(2-3): 546-51.

suboxone. Suboxone is very expensive. The national insurance does not cover it. Suboxone has to be bought by the patients, while methadone is free. If the patient visits the clinic, they just have to pay very little registration fees. The rest of the treatment is free, though the patient has to visit the clinic regularly.

Currently, our role has modified. If the substance is used for criminal use, the judge asks the patient to visit to the Methadone Clinic for at least 1 year. If the regulator is okay, the judge cancels the patient's criminal record. Our law enforces substance use so that there is better drug adherence. Otherwise, the patient is reported to the judge who will put the patient into the jail. It is a kind of rehabilitation.

The patients need to receive two kind of treatments; one is methadone and the second is group psychotherapy. This is a compulsory course for them. If the patients do not complete group psychotherapy, they interrupt it or do not report to the clinic every day or report less than 80%, they will be reported and they need to go back to the jail.

Saio With regards to your community treatment order, are there any designated hospitals for the community treatment where the patient can visit regularly?

Yang Community treatment orders are performed by the hospital that has government permission. Each local government has its own regulation, which is based on whether the training hours for each psychiatrist is enough. The psychiatrist's behavior could violate some law, so they need to understand some regulation. The regulatory authorities will visit the psychiatrist. They will visit each hospital every year to ensure that the hospital is well-qualified to provide such services. These services include two kinds of services; one is compulsory or mandatory hospitalization and the other is compulsory community care.

Saio In case of compulsory community care, how long is the duration or is there any limit?

Yang We need to apply every 6 months; otherwise, we will be failed. In Taiwan, we have two special review committees, either for northern or southern part of Taiwan who try to review this situation. They have two kind of roles; whether to get permission for compulsory hospitalization or not and whether to permit compulsory community treatment or not.

Kurihara Which kind of therapeutic methodology is used for compulsory community care?

Yang There are four kinds of treatment strategies. Each treatment is individualized. Although there are four choices, only one or two can be chosen.

First is medication.

Second is drug panel screening, which looks if the patient could be comorbid with substance abuse and psychosis. If the patients are old, they receive drug and the drug panel urine screening.

Third is rehabilitation. The committee can ask if the patients should receive drug panel urine test and rehabilitation.

Fourth is blood test. It was found that some patients could be bipolar, so they need to be monitored lithium label before discharge.

If patients do not need antipsychotics and they do not indulge in substance abuse, they do not need rehabilitation or urine/ blood tests. If the patient is bipolar and somewhat violent, they may be administered lithium. Every 1 or 6 months, the patient's plan needs to be checked. For mortality, any of the four strategies can be chosen. The choice comes from the psychiatrist who has received approval from the committee. Each committee reviews it every 6 months to decide whether the order should be continued or discontinued.

Saio How about benzodiazepine dependence? Unfortunately, this is a problem in Japan. How can we

tackle this?

Yang I have no data to show you. But in my clinical sense, it is a big problem, particularly in private clinics.

Saio Taiwanese often come to Japan, where they are treated with benzodiazepine. But when they go back to Taiwan, they have a problem.

Yang Benzodiazepine prescription prevalence is significantly high. Some people revealed that Taiwan's benzodiazepine prescription is very high, maybe similar to Japan.

Hwang It is the same in Korea. Yesterday, I had presented on benzodiazepine prescription patterns.

Sihombing Are there no restrictions for prescribing benzodiazepine?

Yang We have benzodiazepine prescription. In Taiwan, we have three-level prescription that uses a prescription sheet. Benzodiazepine is one of them. Opioid is level one. Methadone and suboxone is level two. Benzodiazepine is level three. These are the three levels. Level one is highly controlling. Level two should be cautious. Level three should be reported. If each physician, other than psychiatrists, receives enough training of several hours, they can prescribe these drugs. It seems that not just psychiatrists prescribe these drugs, but all physicians prescribe these drugs, so it has become very difficult to control benzodiazepine prescription.

Mental Health Policy and community care for mentally ill

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1. National Mental Health Policy

It is my pleasure to introduce to you The Mental Health Policy and Community Care for the Mentally Ill in Korea.

There is no conflict of interest.

Let us start with the situation in 1984 that ends in the 1990s. We call this the Institutionalization Period.

In 1984, there was a special media report by the Korean Broadcasting System, Stalk 60 Minutes which reported a miserable situation of the mentally ill in the asylum. At the time, Mr Chun, who was the former Army General became the President of Korea. When he got to know about this situation, he summoned the Minister of Health and Welfare and inquired about the miserable situation.

He ordered the Minister to provide some comprehensive policy on the management of mental health patients. The Ministry of Health and Welfare wanted to improve the physical condition of all the asylums. Part-time psychiatrists were being hired for prescription in the asylum. It is a once-a-month visit, where the patient is interviewed and given some drugs.

Table 1　National Mental Health Policy

1984 - 1990 : Period of Institutional Care by Mental Hospital
- Role of Media(KBS: Stalk 60 minutes) - Special inspection by President Order - "Comprehensive Policy on the Management of Mental Patients" by Government * Improved physical environment of asylum * Part-time psychiatrist for prescription in the asylum - Increased public and private mental hospital beds - Institutionalization of homeless mentally ill during 1988 Olympic Game

Table 2 Mental Health Act in 1995

- Government got to have interests in
  - psychosocial rehabilitation of the people with chronic mental illness, who were neglected in the communities and in long-term institutions
  - their human rights and de-institutionalization
  - begin community-based rehabilitation services in the CMHCs and Social Rehabilitation Center

As Seoul was hosting the 1988 Olympic Games, the government wanted to remove the homeless mentally-ill patients from the streets. Many homeless mentally-ill patients were institutionalized. It is a very tragic story for the mentally-ill patients (Table 1).

Finally, the Mental Health Act arrived in 1995. The Korean government got to have interests in the psychosocial rehab, community care and human rights issue. Because of the Mental Health Act, community-based rehabilitation service had to be started (Table 2).

2. CMHC in urban area: Public-private collaboration

This is the typical organization of the Community Mental Health Center (CMHC) in urban areas. The Public Health Center provides the mental health budget. By contract, the private sector, the university hospital or mental hospital provide these community mental health services in the local city. At that time, there was no training of the staff or Psychosocial Rehab Program in the public sector. In the private sector, there were already many trained mental health professionals, so they provided the program in the community.

This is the first CMHC in Seoul. The Gangnam district actually is the richest district among the 25 districts of Seoul, though some areas of the district had very poor people's rented apartments. In the southern parts of the district, the citizens with rented apartments had some problems with substance use, suicide and domestic violence.

The first CMHC was set up on the fourth floor of this building and then moved to another building. The first floor is a restaurant for sashimi. The second and third floors were rented for the Gangnam CMHC. It is very near to the Samsung Medical Center. The CMHC still exists at the same place in the Gangman district and provides the Community Mental Health Program.

3. Mental health services in rural area: Public Health Centers

In case of rural areas, there are very few psychiatrists and mental health professionals, such as nurses or social workers, so it is hard to make the CMHC. In case of rural areas, the Mental Health Team is situated inside the Public Health Center. The organization is different from what exists in the urban areas.

This is the building of Seongnam CMHC. The third floor of the Public Health Center is the Seongnam CMHC. It is a small space inside the Public Health Center but provides many services in the community.

4. Statistics

Here are the CMHCs. There are 250 CMHCs. The Rehabilitation Center is more than 350. The Addiction Management Center is for alcohol or other substance abuse. It is the same from 2013, with 50 addiction centers (Fig. 1).

This slide shows the number of patients in the hospital and in the community. There are 6 National Mental hospitals and 12 Public Mental Health hospitals. Just like Japan, the private sector is more dominant in the patient care. There are 59 long-term care facilities that are called lunatic asylum. There are around 13,000 patients in the asylum right now. In the community, more than 92,000 patients are being taken care of in the Psychiatric Rehabilitation Center, CMHC and Addiction Management centers (Table 3).

5. Governance for CMHC

Through the Community Care Program, some governance for the CMHCs was developed. There is the national and regional government and the Regional Mental Health Center. At the local level, the hospital, private sector and public health sector make the Local CMHC.

The Seoul Metropolitan Mental Health Center is managing 25 Local CMHCs, located in the Gangnam district. They have moved to another district now. The Suicide Prevention Center was in the same building

Fig. 1 Annual increase of community centers

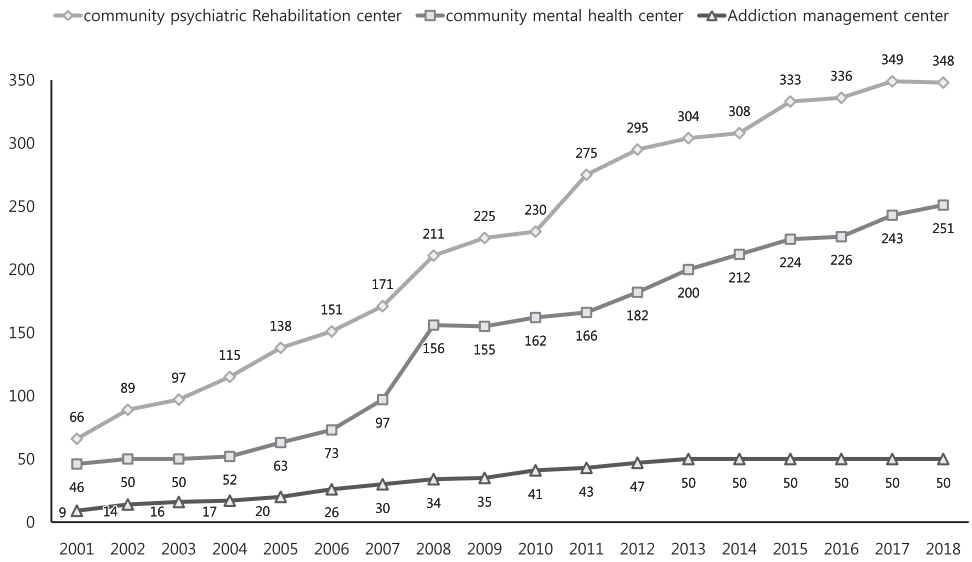

Table 3 Patients in hospital and community

			No. of Facilities	No. of Beds	No. of Patients admitted or registered
Total			**2,262**	**95,019**	**169,452**
Hospital-based care	Mental Hospital	National MH	6	2,990	2,029
		Public MH	12	3,643	2,903
		Private MH	136	35,842	29,820
		Total	154	42,475	34,752
	Hospital/ Clinic	General Hospital	198	5,289	3,957
		Secondary Hospital	181	30,484	25,764
		Primary Clinic	1,021	3,486	2,968
		Total	1,400	39,259	32,689
	Long-term Care facilities		59	13,285	9,720
	Total		1,613	95,019	77,161
Community-based care	Psychiatric Rehabilitation center		348	-	6,461
	Community mental health center		251	-	77,014
	Addiction management center		50	-	8,816
	Total		649	-	92,291

Dec 2017

Inpatients Care fee is reimbursed from National Health Insurance and Medicaid
Community Care is supported by Central and Local Government

but moved out 3 years ago.

This is the typical rural area. The Yongin City CMHC is inside the Public Health Center right now.

This is the Addiction Managing Center. The Seongnam Addiction Management Center rented a small office in the district.

The Case Management System in the CMHC includes counseling and registration service. After evaluation, the team can decide the level of care, whether if a patient is in crisis or needs intensive case management

Table 4 Magnitude of mental health problems

Lifetime & One year prevalence of mental illness

Type		2001	2006	2011	2016
Lifetime prevalence	All kinds of mental illnesses	30.9%	30.2%	27.6%	25.4%
	All kinds except smoking	25.8%	25.9%	24.7%	23.1%
One year prevalence	All kinds of mental illnesses	19.0%	17.2%	16.0%	11.9%
	All kinds except smoking	14.4%	13.0%	13.7%	10.2%

or just a temporary management. The case managers are usually the psychiatric nurses, social workers and very few clinical psychologists.

This slide shows the human resources of one CMHC. 80% of the budget constitutes staff salary. The majority of the staff is the social workers and the nurses are second. The average cases managed by these social workers and nurses is 73 for the chronic mentally-ill patients, but it differs with each center. The total annual budget is US $15 million.

The majority of the budget for service expenses is for the chronic mentally-ill patients. The child and adolescent mental health service, suicide prevention and addiction add just a little bit to the service expenses.

The epidemiologic study of the mental illness is done every 5 years. For almost 25% of the total population of Korea, the time prevalence of mental illness is 25, so one out of four have mental illness (Table 4).

Conventionally, severe mental illness, psychosis or alcoholism is a traditional issue, but currently it is suicide. Among the OECD countries, Korea is number one in school violence, stress, ageing problem, and the addiction problem which are the new mental health issues.

6. The UN Convention and Mental Health Plan

The UN Convention on the Rights of Persons with Disabilities (CRPD) recommended the Government of Korea to stop involuntary admission in 2014. For the human rights movements' activists, this declaration is very important. They think that the involuntary admission for the human right improvement should be abolished. But the reality is a bit different.

According to the CRPD recommendation, the Korean government amended the Mental Health Act in 2016. For human rights improvement, this amended act has strengthened the involuntary admission process strictly and provides many mechanisms to protect the human rights.

In 2011, the involuntary admission rate was 76%.

In 2015, 65% was also high when compared with Taiwan.

The process of involuntary admission will contribute to reduce the involuntary admission rate. If the patient admits involuntarily, there should be a review by another psychiatrist within 2 weeks. Within 1 month, the Committee for the Appropriateness of the Involuntary Admission should review this case. It

evaluates the process of transportation. If it is a very coercive transportation, just like a PASUNG. The committee ordered to discharge the patient as it violates human rights. Previously, if the patient was admitted to the hospital by involuntary admission, the patient can stay in the hospital for 6 months. The accepted duration of involuntary admission is less than 3 months. The total involuntary admission period was reduced. After 3 months, there will be a review by the local committee forthe extended admission. The committee can decide if patients should be discharged or should continue with their involuntary admission. This is a very forceful new process to protect the human rights of the mentally-ill patients.

7. Employment status of mentally disabled

The employment agency for the disabled works under the Ministry of Labor, not under the Ministry of Health and Welfare. According to the statistics on the type of other physically-disabled, the mentally-disabled patient unemployment rate is very high and employment rate is very low. The Korea Employment Agency for the Disabled (KEAD) develops more vocational training program for the mentally-ill patients (Table 5).

This is the photo of my previous Yongin Mental Hospital. This is a sheltered workshop in the mental hospital that provides job training. It is supported by the KEAD. The patient can earn money by scanning X-ray films. In this case, this person was my patient. His cognitive function improved in the sheltered workshops and he went to the university to study. It was a very successful story.

For the community of job after training in the sheltered workshop, we have contracts with the local job sites. If a local factory hires mentally disabled persons, the factory is supported with tax reduction and some salary support for the disabled patients.

This is a special cafeteria by the gas station. The patients work in this Happy Together café. If we go to this gas station, we receive a coffee coupon and we can enjoy our coffee. In the café, the mentally-ill patient can

Table 5 Employment status of mentally disabled

2016 Korea Employment Agency for the Disabled (KEAD)

		Over 15	Economically Active population			Unemployment %	Employment %
			total	Employed	Unemployed		
Total population		43,387,000	27,455,000	26,450,000	1,005,000	3.7	61.0
People with Disability		2,441,166	941,051	880,090	60,961	6.5	36.1
Types of Disability	Physical	1,279,197	610,272	575,715	34,557	5.7	45.0
	Visual	251,059	114,375	107,753	6,622	5.8	42.9
	Mental	279,232	60,197	53,200	6,997	11.6	19.1
	Inner Organ	122,937	32,737	29,575	3,162	9.7	24.1

*Ministry of Labor is supporting Disabled to promote their employment and support of companies and factories through KEAD

receive salary through these coupons from the gas stations. There are many cafes run by mentally-ill patients right now in Korea.

This is the Halfway House operated by Seoul City. A four story building was rented for the mentally-ill women patients. The total capacity of this Halfway House is 25. The total annual budget is borne by the Seoul City government.

The Family Link Psychoeducation Program started in 2004. It is supported by Janssen, Johnson and Johnson, and the Ministry of Health and Welfare. Here, the 10th year anniversary is being celebrated. This is Eva Teng of Taiwan. She was the Secretary General of the Family Link Association of Taiwan. She explained to us about her experience with the family members. She has quit her job now.

8. National Center for Mental Health and National Trauma Center

This is the old-style Seoul National Mental Hospital. It was established in 1962. The total number of beds were over 900 in 2011.

In 2016, it was destroyed. We built the new National Center for Mental Health (NCMH) in the backyard of the Seoul Mental Hospital. I moved from my private hospital to the NCMH, this year.

Previously, the Seoul National Mental Hospital just had the Division of Medical Service, but in this NCMH, I am the Chief of the Division of Mental Health Services and Planning. There is another Mental Health Research Institute inside the NCMH.

Last year, the National Trauma Center was established, as there are many natural or manmade disasters. There is an upcoming need for the psychological support for traumatized patients. The National Trauma Center is in the NCMH. We would like to develop other Regional Trauma centers in the rural national hospitals.

9. Homicides by isolated and untreated schizophrenics

This is a very tragic story. On December 31, 2018, a professor psychiatrist was killed by a bipolar patient in the Samsung Medical Center. He was the last patient of the day. Around 5:30, the professor was in an interview with a bipolar patient who killed the attending doctor. There were some homicide cases as well. These patients are socially isolated and psychotic. Since their medical condition remains untreated, they kill other people.

10. New Mental Health Policy in 2019

This year, the government would like to make the new Mental Health Policy which would strengthen community care for high-risk patients. Next year, we would like to see more community treatment orders for high-risk patients. The human rights of the mentally ill have to be kept in mind while strengthening the community care for high-risk patients. The text in blue shows how can we improve the human rights of the mentally ill.

11. Managing high-risk case in the community

Hospital-based case management needs to be started for major high-risk cases in the community. This case management service is different from that of the CMHC. As Dr. Yang mentioned, the hospital psychiatrist and nurses will visit the patient home, so hospital-based case management will be reimbursed by the national insurance from this year. The day hospital care needs to be improved. The information of the discharged patient is delivered to the local CMHC for collaborative care.

12. Psychiatric emergency care

Emergency psychiatric treatment is very important. There are psychiatric patients suffering from some physical illness. It is very hard for mental hospitals without internists, pulmonologists or other doctors to tackle this situation. Some hospitals for psychiatric emergency care and emergency unit need to be designated. Maybe through this emergency unit, the emergency admission is possible for administrative admissions which is a kind of compulsory admission. In this case, just like in Taiwan, the central government will pay for the administrative admission through the mayor.

13. Judicial mental health services

The mental health services for probation case is increasing right now. There are minor crimes. Dependent patients commit some minor crime. There should be collaboration with the Probation Office and the Youth Detention Center to take care of the mentally-ill patients in the Probation Office.

14. Development of integrated MH Information System

The Integrated Mental Health Information System is being developed. Admission management information system (AMIS) for involuntary admission case is always being developed in the hospital. The case management in the CMHC already exists in the community. The CMHCs are using the Mental Health Information System (MHIS). There is a lot of information about housing, employment and social support in the welfare system. These AMIS and MHIS needs to be linked to the welfare information system. The patient can be followed up from the hospital to the community and more welfare services can be provided to the patient.

15. Conclusion

In 1995, psychosocial approach was started under the Mental Health Act. The mental health prevention, promotion and taking care of high-risk patients in the community is an urgent issue as many citizens in the public are urging for public safety rather than human rights of the mentally ill. Public safety and human rights should be balanced together. The role of government and NCMH for the mental health service development

is crucial. We need to do more for the human rights of the mentally-ill patients.

Q&A

Yang In terms of the catchment area, what is the population for each community mental health centers?

Hwang That is a good question. In case of the US, maybe there is a limitation of population less than 200,000. In case of a bureaucratic area, the size of the population is different in local city or small districts. Big cities, with more than 1 million population, have their own district, hence they can provide three or more small CMHCs within the city. This depends on the size of the local city population.

Yang Who is running the community-based centers, is it the mental health hospitals, the government or the private sector?

Hwang This is a typical organization which is run by a contract between the Public Health Center and the private sector. The CMHC is a collaboration between public and private. The budget is from the local city, not the insurance. The funding stream is totally borne by the central and local government and the city. The employees in the CMHCs are from private sector and are trained staff. The salary is from public health centers. It is very difficult to understand what the Korean situation is.

Yang With regards to slide 16, what is the category C and category D?

Hwang It is not category. It is C Center and D Center. With regards to the center's case management, the staff-to-patient ratio is different.

Yang Currently, the suicide prevention is separate, but is that goal for psychosis patients with suicide tendencies?

Hwang Nationwide, there are less than 30 Suicide Prevention centers. The need was separated at the highest level of the Metropolitan Mental Health Center, but this is the local. The Local CMHC has some Suicide Prevention Program that runs together in a loop.

Yang Let me share Taiwan's experience. For diagnosis, we admit the patient for only 5 days. In Korea, it is at least 2 months. What happens if you do not apply again to the committee?

Hwang In Korea, it is 3 months. In our case, we are very harsh and serious about what to complete. When I visited Taipei, I visited the Review Committee. It was like a teleconference interview with the patient. In Korea, the Review Board does not directly contact the patient. The patient can appeal to the Review Committee about the inappropriate admission. The Review Committee then sends a reporter or an investigator who will directly contact the patient.

Yang In Taiwan, if the patient would like to appeal, the Committee cannot take any decision, so the patient's appeal will directly go to the court. The judge will ask the patient whether the admission is okay or not. At the same time, the judge will ask for the documentation from the committee as a reference. As it is not a specialist training, they may take a wrong decision.

Hwang It is the same in Korea. If the patient goes to the court, they can appeal directly to the judge. The judge calls the doctor and the patient together and investigates for appropriateness of the process of involuntary admission. It is separated to the Review Committee and the court system.

Kurihara In case of Japan, there are very limited cases of court decision. There is a long history of this kind of committee. Although the committee is very schematic, there is no impact of this committee. How is

it in Korea? Is there any commitment of human rights activists or some knowledgeable people in terms of human rights? In Japan, there will be some lawyer or some people who know about human rights but it is very much schematic and a lot of paperwork is involved.

Hwang The members of the Review Committee are lawyer, psychiatrist, the recovered patients, the family members and some bureaucratic officers in the local city, all can form a small committee. There are usually six members. Five national mental hospitals operate this Review Committee. Within my NCMH, there are 16 small review committees that actively review cases in Seoul, Gyeonggi Province, and Incheon. Only national hospitals have this kind of committee in Korea on involuntarily hospitalization. The patients can get admitted to other hospitals, private or public, but the Review Committee is only in private hospitals.

Kurihara Is it an external review?

Hwang It is an external review. The Human Rights Commission recommends the independent review committee. We think about the National Mental Hospital as an independent committee with lawyer, representatives from family members and the local mental health professionals.

Kurihara The evaluation of this kind of committee would be very much independent and quite high level.

Hwang Yes. If the review committee decides to discharge the patient, the clinic or local mental hospital should discharge the patient within 72 hours. It is a very forceful decision by the review committee.

Yang It is the same in Taiwan.

Taiwan only has two review committees; one is in Taipei and the other is in Kaohsiung. In Kaohsiung's case, the hospital should send the case to be reviewed to Taipei, as one or two employees could be the committee member there.

Hwang With the amendment of mental health, the involuntary admission rates have dropped from 61.6% to 36%. This is known as the Front Door Policy which prepares the involuntary admission case as soon as possible. The amended Mental Health Act mentions about social welfare services, like employment-supported education and family support, for the mentally-ill patients. Unfortunately, the budget was not allocated appropriately. More time is needed to start this educational program or some psychoeducation for the family members. More government budget is needed for patient welfare.

Yang In terms of employment, does your government have a special regulation at large or do huge companies need to hire several percent of patients who are mentally ill?

Hwang There is a regulation. By law, large companies like Samsung, LG or Hyundai, should hire at least three percent disabled persons. If they cannot hire, they should pay a fine to the government.

Yang In Taiwan, we used this quota to negotiate or hide our patients, as most of our patients have a disabled certification. We ensure that the company does not have to pay a fine. In my university or university hospital, when we make contracts with our sourcing agency, there is some special regulation of about 3% which is for employees. This is disclosed as it is quite easy to recruit disabled patients, so this strategy is used to try to help patients to return back home.

Hwang There is an incentive. If disabled women are hired, more incentive is given from the government to the company.

Sihombing I am very happy to see the pictures that remind me of my experience of psychosocial rehabilitation in Korea. I have not seen the new building but have visited the Seongnam CMHC.

Hwang Tiur visited many community health centers and metropolitan CMHCs 4 years ago.

Kurihara With regards to the homicide case, we also experienced a case in Japan where one person killed many patients. Even Taiwan has experienced such cases. In Taiwan, there was a case where a psychiatric patient killed around 20 people. Several years ago, there was a homicide in the subway.

Yang I have no idea as to how many people were killed. This is not the only case but there are many more such cases. In one such case, a patient killed mental school students in a park. This incident made the society very anxious. At that time, compulsory hospitalization increased. Human rights activists tried to go against it. Currently, this is the dynamic where citizens are more concerned for their own safety but the human rights activists fight for the protection of the human rights of the mentally-ill people. There is always a struggle. The center could be different in special situations.

Sihombing You stated that voluntary admissions have increased. It is known that mentally disabled patients have no insight. They are not aware about their disorder. How do you raise the awareness?

Hwang The Mental Health Act amendment provides another form of admission which is a consented admission wherein the patient, family and the doctors are all aware why the patient needs admission. The patient can then endorse the admission. It is a little different from voluntary admission.

In case of the voluntary admission, the patient can be discharged anytime he wants. But in this new category of consented admission, if the patient wants a discharge, the family members and the psychiatrists discuss whether the patient can be discharged or not. If the family members and doctors decide this is true only for the patient side, then the admission type can be converted to the admission by the family members. This is the midpoint of voluntary and involuntary admission. It was because of this consented admission, that the voluntary admission rate increased.

Kurihara Interestingly, in yesterday's lecture, you talked about some patient engagement strategy of negotiation between the physician and the patient. In Japan, many pharmaceutical companies want to take this kind of patient engagement strategy these days but not yet as your situation.

Hwang Shared decision-making regarding treatment, medication or admission is important for prognosis of the patient's behavior or their compliance with the medication in the future. It takes time and energy to persuade the patient to invite them for shared decision-making. But this process is time saving and cohort saving for future care.

Kurihara It was very interesting to learn that this kind of shared decision-making and negotiation process is included in even compulsory intervention.

Hwang The concept is important to respect the patient's opinion for medication decision or rehabilitation program decision or admission decision.

Saio In Japan, recently the concept of Open Dialogue from Finland was adopted. But the Japanese adaption is very much different from that of Finland. In Japan, it is only discussion about how good the Open Dialogue process is. Open Dialogue in Finland is early interventionfor acute psychosis. In Japan, it is sometimes applied to the chronic status or just discussing about that, but not put into practice. It only has philosophical value.

Hwang Sometimes, patients are very reluctant to take hospital admission or take medication. In case of Open Dialogue, we can invite the case managers from the community or family members or even some relatives. The patient is contacted frequently. Their opinion is important to give the patients some insight about

their treatments or their future plans. Open Dialogue needs more energy and more time. It is a process of shared decision-making.

Kurihara Is Open Dialogue also popular in Korean psychiatry?

Hwang It is not so popular but we would like to adopt the Open Dialogue concept in day hospitals to decide how long the patient will come to the day hospital. Such kinds of decision-making of Open Dialogue are very useful. We have just started.

Kurihara How is it in Taiwan, Open Dialogue or shared decision-making?

Yang In Taiwan, shared decision-making since last year became the important essential element for hospital accreditation. Not only does our government want to push principle of some good idea, but they will put them into hospital accreditation. If you do not pass hospital accreditation, your reimbursement committee will take a decision on your accreditation. In this way, it becomes very easy for our government to control hospitals.

Hwang In Taiwan, the hospital accreditation process is very important as it is linked to medical insurance reimbursement for acute care or rehabilitation or day hospital. In case of Korea, we do not link the accreditation to the reimbursement rates.

Yang For compulsory hospitalization, psychiatry residency training is important. On the first two days of the hospitalization, the psychiatrist's main task is to try to persuade the patient to sign hospitalization consensus, make a consent. Otherwise, we will initiate a compulsory hospitalization. The first 48 hours is a

critical period as only two psychiatrists decide if the patient could stay or not. No one can represent them. Using these 48 hours, the reason of attendance is to try to persuade the patient.

At the end of the second day, if the patient needs to be hospitalized longer, we will initially apply to the committee. The committee should take a decision within 3 days of approval and consent. The total time is 5 days. If the patient was initiated to apply for this process, the process is very hard and complicated. Everyone tries to persuade the patient to say a yes. Currently, the compulsory period is decreased. Over time, the total hospitalization number decreased as it has become very difficult and it is not easy to hospitalize.

Sihombing In our hospital, with regards to voluntary admissions, it is ethically impossible because if patients smoke, they do not want to be hospitalized. Smoking is prohibited in our hospital. Smoking is a bad behavior in the hospital.

Yang In our hospital, we immediately initiate the Smoking Quitting Program. As this program is reimbursed by the regional government, they cannot have patients who are on illegal drugs. A smoking specialist visits these patients. Even after discharge, the patients are assessed not only for psychosis but also for smoking.

Hwang It is a good chance for the patient to quit smoking but it is very hard. It is another stress.

Kurihara How is the Review Committee of involuntary hospitalization in Indonesia?

Sihombing In Indonesia, every patient is being hospitalized and family or caregiver signed the informed consent, so the patient knows the human rights to sign that.

Kurihara But there is no review committee, it is just a consent.

Sihombing Consent is compulsory.

Kurihara The time has come where we need to conclude. Thank you very much for the presentations and the discussion.

Part 3 Additional message on COVID-19 and mental health[*9]

Tae-Yeon Hwang Under the COVID-19 Pandemic situations declared by the World Health Organization, Korea is facing hard situation of 3rd wave. Now we can see the report of totally 36,332 infected patients nationwide since January 2020.

In respect to mental health field, a striking situation was happened.

In February, COVID-19 infected one psychiatric hospital's staff and most of the patients, around 103. Among these patients, 6 died because of the underlying physical illness and weakness by long-term hospitalization. No special medical facilities to treat the infected patients are near the psychiatric hospital that the patients are transferred to other University hospitals and to the National Center for Mental Health (NCMH).

While preparing to admit these infected patients, NCMH discharged many existing inpatients to prevent new infection. Drs specialized in infection and respiratory care joined to taking care of these infected mentally ill patients.

Fortunately most of the patients recovered from the infection that they transferred to another national mental hospital.

After this mass infection in the mental hospital, we observed 4 more infections in the private mental hospital and national and public hospitals were transferred infected patients and treated.

Most of community mental health centers, social rehabilitation facilities, and day-care centers closed and partly opened according to the guideline of social distance by Korean Center for Disease Control. For the patients in the community, it's very hard to develop and maintain the social network and contact with case managers that their clinical state went through relapse. Also for these patients under crisis situation, it's very hard to admit into the private hospitals that the government tries to designate emergency psychiatric bed in the public hospitals in each region.

Patients' right to be treated continuously in the community though in the COVID-19 pandemic situation is very important. Many community mental health centers and social rehabilitation centers were developing un-tact mental health services for the members. Case managers called to them by telephone to check their health status and Zoom telecommunication by smartphone was for group activities. Many applications developed for children and adult to support their home life with physical training, cooking, meditation to prevent relapse of symptoms or deterioration of their functions.

Another mental health issues among general population during social distancing is aggravation of mental health. Many people are suffering from anxiety, depression, insomnia, and finally suicidal ideation- so called 'Corona Blue'. Statistics tells us that surging of suicide among twenties female group because of frustrations to get a job and loss of their jobs by shut down of many shops and factories. So the government to develop mental health promotion services through counseling and psychological support in the community mental health centers.

To overcome mental health problems in the COVID-19 Pandemic situations, we should collaborate to

[*9] This part contains additional messages on COVID-19 and mental health provided between December 2020 and January 2021.

develop new tele-mental health services and delivery system to taking care of mentally ill patients and general population at risk in the community. (Dec 4, 2010)

Yen Kuang Yang In Taiwan, the positive case of COVID-19 is less than 650 cases till now. Most of COVID-19 patients are foreigners. Most of the citizens in Taiwan should follow the order of CDC regulation to avoid to be infected by COVID-19. Masking in the public and hand washing become compulsory behaviors for everyone in Taiwan. Honestly, COVID-19 seems no markedly impact for majority. (Dec 8, 2020)

Tiur Sihombing The first COVID-19 case in Indonesia have been found on March 2, 2020. And there are 592,900 cases until December 9, 2020. Data obtained from the Ministry of Health shows 487,445 patients who recovered and 18,171 patients who died. A total of 342 health professionals died from COVID-19 (192 doctors, 14 dentists and 136 nurses).

As a result of this pandemic, it has a wide impact in all fields such as economic, financial, job losses which causing mental health problems.

The Indonesian Psychiatric Association conducted a survey through its official website to all Indonesians independently using the GAD-7, PHQ-9 and PCL-C 17 instruments on April 23, 2020. The results showed that from 1,522 respondents (aged 14-71 years, 76.1% of women) found 63% experienced anxiety and 66% had depression. In addition, a self-examination of psychological trauma was also carried out on 182 respondents (aged between 16-60 years, 85% of women) using the Post Traumatic Symptom Check List-Civillian Version 17 instrument and found that 80% experienced symptoms of post-psychological stress due to experiencing or witnessing unpleasant events related to COVID-19.

On May 14, 2020, another survey was carried out by self-examination to 2,364 respondents (in 34 provinces, 72% women) and found 68% experiencing anxiety, 67% depression (49% thinking about death, 19% almost every day feel better off dying or want to self-harm), 77% experienced psychological trauma.

Five months of the pandemic occurred (September 2020) in Indonesia, a survey was conducted again of 4,010 respondents (71% women). The result is that 64.8% experienced anxiety, 61.5% experienced depression and 74.8% experienced trauma. Most psychological problems are found in the age range 17-29 years and over 60 years. 1,725 respondents who experienced depression found 62% of them with psychological problems of depression and 44% of them think they feel better off dying or want to hurt themselves in any way. Most experienced thoughts of death are aged between 18-29 years.

Even though Indonesia has implemented a health protocol known as 3M (Menggunakan masker/wearing a mask, Menjaga jarak/physical distancing, Mencuci tangan/washing hands), the incidence is still high.

Jakarta is one of the provinces with a high incidence rate. Almost all hospitals and some emergency hospitals are designated for COVID-19 treatment. In situations of isolation and treatment, of course, it will cause anxiety, panic, adjustment disorders, depression and some even experience acute psychotic disorders. In cases of serious mental disorders, they will be referred to a mental hospital. However, in Jakarta, there are not many mental hospitals that can also treat patients with COVID-19. Duren Sawit Hospital, a place where I work, is a mental hospital which owned to the Jakarta province. It is one of the hospitals that can treat COVID-19 patients who also have mental disorders. Approximately 10-15% of patients who experience COVID-19 also experience mild to severe mental disorders. Assisted by volunteer health workers as many as 121 people (42 doctors and 79 nurses) to this day treating 319 COVID-19 patients. Duren Sawit Hospital has treated 2,912 COVID patients during this pandemic.

The uncertainty of the end of the pandemic has made everyone in the world experience mental health problems that can affect immunity, causing physical problems. We all hope that a vaccine will be issued that can prevent the spread of this Corona virus and we can return to normal life like in previous years. (Dec 16, 2020)

Takeo Saio In Japan, some clusters of infectious patients in psychiatric hospitals have been reported but there is no common procedures to cope with COVID-19 outbreaks among mental health facilities. During the period of the first declaration of a state of emergency over coronavirus (From April 7 to May 6, 2020), difficulty in visiting day care centers or outpatient clinics were much discussed, and telemedicine was facilitated with deregulation for it.

The media reports that mental health of Japanese people is despairingly filled with anxiety, depression, and resignation with the COVID-19 plague. But to the contrary, most of my patients do not worsen their symptoms by the COVID-19 situation. Instead, they get less sick. They claim that they rather feel calm because a lot of activities around them slowing down for the pandemic. For example, their working hours are reduced and overworks are eradicated. Working from home is highly recommended by the Government which attribute to reduce rush-hour traffic and human relation problem in their workplace. For those who are suffered mentally, the "ordinary situation" before the pandemic around them is much stressful. Though Japanese society generally is tired to the situation, my patients feel that the pandemic is not incubus, but bless rain.

Although the situation around my patients seems to be favorable with COVID-19 pandemic, needless to say, SARS-CoV2 makes invasions on the most vulnerable people of the society such as poor persons, underground communities, handicapped persons, and elderly people. Those people often live in unsanitary condition or cannot access good medical care easily. To defeat the pandemic, we must eliminate inequity and make social system sympathetic to the weak. (Jan 20, 2021)

Chieko Kurihara Thank you so much for all of your contribution. Last October we organized a webinar, as members of the COVID-19 Task Force of Japanese Association for Bioethics, inviting Professor Dirceu Greco, who is a professor emeritus of infectious disease and bioethics of Minas Gerais University in Brazil. His important message quoting the statement of Brazilian Society of Bioethics for which he chairs is that "... it was not normal what we had before the pandemic, which was already very bad for most people. The hope is not to get back to normal, but to work together to make things different, to make people decide what they need and how they live and provide all with the means for this."*[10]

At the final occasion, I wish to quote a table (Table 1) which is included in our paper on COVID-19 prevention vaccine, contributed for Japan Medical Association*[11]. This shows how is the situation of prevalence and mortality of COVID-19 in the world and Asian countries as of January 6, one year after the first report of infection in Japan.

We wish to have another opportunity to discuss with you by webinar or hopefully by a real meeting. (Jan 20, 2021)

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*[10] Greco D, co-organized by the COVID-19 Task Force, Japan Association for Bioethics & Brazilian Society of Bioethics. COVID-19 and bioethics: Part1 Ethical Challenges and COVID-19: The Recommendation No. 01/2020 of the Brazilian Society of Bioethics (SBB). Clin Eval. 2020; 48(3): 661-84.
http://cont.o.oo7.jp/48_3/p661-84.pdf

*[11] COVID19 Japan Medical Association Expert Meeting. Kurihara C, Saio T. Ethics in COVID-19 prevention vaccine development: a milestone toward post-corona era.

Table 1　Statistics of COVID-19 infection and status of clinical trial and approval of COVID-19 prevention vaccine of each country [*11]

Statistics was downloaded from the following web-site of the World Health Organization (WHO), and information of phase 3 trial and approval of COVID-19 prevention vaccien were surveyed by the authors.
WHO Coronavirus Disease (COVID-19) Dashboard
https://covid19.who.int/
EU countries were given the mark of ○ because vaccine approval of each of EU country has not been surveyed as EU gave central approval.

- *Italic*：Deaths-cumulative total per 1 million population>100
- ***Bold & Italic***：Deaths-cumulative total per 1 million population>1,000
- Gray background：ASEAN＋Japan, China, South Korea, Taiwan

※Data of Taiwan is not included in WHO web-site thus complemented by the data from Japanese Ministry of Health, Labour and Welfare.

Name of country	Conduct of phase 3 trial	Approval	Cases - cumulative total	Cases - cumulative total per 1 million population	Deaths - cumulative total	Deaths - cumulative total per 1 million population
Global			**85,929,428**	**11,008**	**1,876,100**	**240**
USA	●	●	20,870,913	63,054	354,286	***1,070***
India	●	●	10,395,278	7,533	150,336	*109*
Brazil	●		7,810,400	36,745	197,732	*930*
Russian Federation	●	●	3,332,142	22,833	60,457	*414*
UK	●	●	2,836,805	41,788	77,346	***1,139***
France		○	2,660,740	40,763	66,184	***1,014***
Italy		○	2,201,945	36,419	76,877	***1,272***
Spain		○	1,982,543	42,403	51,430	***1,100***
Germany		○	1,835,038	21,902	37,607	*449*
Colombia			1,702,966	33,468	44,428	*873*
Argentina	●	●	1,662,730	36,790	43,785	*969*
Turkey	●	●	1,469,593	17,425	22,070	*262*
Mexico	●	●	1,466,490	11,374	128,822	*999*
Poland		○	1,356,882	35,852	30,241	*799*
Iran			1,261,903	15,024	55,830	*665*
South Africa	●		1,149,591	19,383	31,368	*529*
Ukraine			1,099,493	25,141	19,505	*446*
Peru	●		1,022,018	30,997	37,925	***1,150***
Netherlands		○	841,163	49,091	11,999	*700*
Czechia		○	794,740	74,212	12,621	***1,179***
Indonesia	●	●	788,402	2,882	23,296	85
Belgium		○	655,732	56,579	19,883	***1,716***
Romania		○	654,007	33,996	16,299	*847*
Chile	●	●	625,483	32,720	16,816	*880*
Canada		●	618,646	16,391	16,233	*430*
Iraq		●	599,965	14,916	12,865	*320*
Bangladesh		●	518,898	3,151	7,687	47
Pakistan	●		492,594	2,230	10,461	47
Philippines			480,737	4,387	9,347	85

Name of country	Conduct of phase 3 trial	Approval	Cases - cumulative total	Cases - cumulative total per 1 million population	Deaths - cumulative total	Deaths - cumulative total per 1 million population
Sweden		○	469,748	46,513	8,985	*890*
Switzerland		●	468,427	54,124	7,400	*855*
Israel		●	457,721	52,882	3,503	*405*
Morocco	●		447,081	12,113	7,618	*206*
Portugal		○	446,606	43,799	7,377	*723*
Austria		○	371,657	41,266	6,454	*717*
Saudi Arabia		●	363,377	10,438	6,272	*180*
Serbia		●	352,120	50,565	3,444	*495*
Hungary		○	334,836	34,661	10,325	***1,069***
Jordan	●	●	302,856	29,683	3,955	*388*
Nepal			263,193	9,033	1,899	65
Panama		●	259,770	60,205	4,238	*982*
Japan			258,393	2,043	3,791	30

Data of ASEAN＋Japan, China, South Korea and Taiwan were extracted.

Indonesia	●	●	788,402	2,882	23,296	85
Philippines			480,737	4,387	9,347	85
Japan			258,393	2,043	3,791	30
Myanmar			128,178	2,356	2,785	51
Malaysia			125,438	3,876	513	16
China		●	97,217	66	4,795	3
Republic of Korea			66,686	1,301	1,046	20
Singapore		●	58,780	10,047	29	5
Thailand			9,636	138	67	1
Viet Nam			1,505	15	35	0
Taiwan			819		7	
Cambodia			385	23	0	0
Brunei Darussalam			172	393	3	7
Laos			41	6	0	0

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