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Research Activities

Psychopathology, psychotherapy and child study group

We have performed research in psychotherapy, psychopathology, and child psychiatry. We have investigated the care systems for developmental disorders in the psychiatry unit. We began a study of the attention problems of patients with developmental disorders or psychotic disorders. This study investigated the quality of attention in Autistic Spectrum Disorder (ASD) autism-spectrum disorders, but when many tasks were added, the quality of attention tended to decrease. In psychotherapy, we attempted to develop prototypes of dialectical behavior therapy for Japanese patients, diary therapy, and the self-psychological psychotherapeutic approach, which maintains the self-esteem of patients with developmental disorders. We have been investigating the possibility of a psychoanalytic approach for development disorders.

Our social psychiatry team investigated background factors related to depression in white-collar workers. This study suggested that male workers exhibiting perfectionism tend to undertake too much work and to become exhausted when trying to cope with complex human relationships in the workplace. Female workers having the double burden of family commitment and perfectionism tended to be isolated in terms of personal relationships, leading to exhaustion both inside and outside the workplace.

Morita therapy group

We have been continuously promoting comparative studies between Morita therapy and the third generation of cognitive-behavioral therapies, such as acceptance and commitment therapy and mindfulness-based cognitive therapy, and the results have been reported at several conferences. Recently, we have applied Morita therapy to traumatic stress or posttraumatic stress disorder, pain disorders, and emetophobia and reported clinical studies of these topics. In addition, studies continuing this year examined the subtypes of obsessive-compulsive disorder, the psychopathology of social anxiety disorders, and factors in the recovery from depression with inpatient Morita therapy.

Psychopharmacology group

In basic research, we performed the following studies in rodents: 1) effect of a novel psychotropic agent on monoamine neurotransmission using microdialysis and radioimmunoassay techniques, 2) the formation mechanism of drug addiction, 3) the neural basis of

addiction-related impulsivity, and 4) the development of a novel anticraving agent (the latter 3 studies were performed in collaboration with the NTT Communication Science Laboratories and the Department of Psychology, Senshu University). In clinical research, we have performed the following studies in humans: 1) the effect of second-generation antipsychotics on anxiety and stress-related disorders, 2) the effect of antipsychotics on dopaminergic neurotransmission using positron emission tomography (in collaboration with the National Institute of Radiological Sciences), 3) exploratory research on novel blood biomarkers for mood disorders (in collaboration with the Department of Virology, The Jikei University School of Medicine), and 4) the effect of modified electroconvulsive therapy on regulatory factors for gene expression, and 5) the symptoms of menstruation-related mental disorders, atypical psychosis, and acute psychosis. Integration between basic and clinical research is a fundamental concept of the Psychopharmacology group.

Psychophysiology group

Our studies included: 1) a study of changes in sleep structures and cognitive function with the menstrual cycle by means of the cyclic alternating pattern method, 2) empirical research regarding the efficacy of group cognitive behavioral therapy for primary insomnia and depression, 3) clinical research with the multiple sleep latency test of hypersomnias of central origin, and 4) an investigation of biomarkers of fatigue for sleep disorders.

Psychogeriatric group

First, a study of the neuropsychological evaluation of neurodegenerative disorders using brain-imaging modalities, such as magnetic resonance imaging and single-photon emission computed tomography, suggested that a reduction in hippocampal volume in Alzheimer's disease is related to delayed responses on neuropsychological tasks. Second, an epidemiological survey in Itoigawa City showed no differences in the mortality rates of patients with dementia, although patients with vascular dementia required higher payments from the Long-Term Care insurance system than did patients with Alzheimer disease. Third, a longitudinal study of the prevalence of psychiatric disorders in patients with breast cancer was performed in collaboration with the Department of Surgery.

General hospital psychiatry

In a study of interventional therapy based on cognitive-behavioral therapy aimed at preventing recurrences of depression, a computer system and sleep evaluation methods were introduced to a previous evaluation system for more effective presentations and for more precise estimation, respectively. Furthermore, an investigation of new indications for this intervention for patients with atypical depression, bipolar depression, and insomnia was performed. Another study investigated the issues associated with mental care services for patients with cancer. We are focusing on risk factors for postoperative delirium in patients with digestive tract cancers.

Clinical electroencephalography group

We reported a case of epilepsy in a patient with ring chromosome 20 syndrome, and from

a review of the literature, we discussed the characteristics of patients with ring chromosome 20 syndrome. Furthermore, we reported a case of elderly-onset partial epilepsy with manic state due to postictal psychosis. A study was performed to prevent the recurrence of depression in patients with epilepsy. We are planning a study of the management of epilepsy in pregnant women.

Clinical psychology group

We have continued to discuss and study psychotherapeutic processes and the treatment techniques of cognitive behavior therapy, Morita therapy, relief care, psycho-oncology, and mental care after natural disasters. We have also examined the characteristics of developmental disorders and higher brain dysfunctions through psychological assessments. We invited Mr. Shu Morioka to a clinical conference and studied “social brain” in neuroscience. Furthermore, we trained graduate students of a clinical psychological course.

Publications

Nagata T, Shinagawa S, Nukariya K, Yamada H, Nakayama K. Association between BDNF polymorphism (Val66Met) and executive function in patients with amnesic mild cognitive impairment or mild Alzheimer disease. *Dement Geriatr Cogn Disord.* 2012; **33**: 266-72.

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Reviews and Books

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