Research Center for Medical Sciences Division of Clinical Epidemiology

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General Summary

The Division of Clinical Epidemiology is promoting the activity of clinical research and clinical epidemiology and of education concerning them. Our specific aim is to support clinicians to solve their own problems in daily practice by epidemiological and clinical research skills.

The research themes of our division are medical communication, quality assessment of medical care, behavioral medicine, outcome research, qualitative research, and disease-oriented epidemiological research. In particular, in the field of primary care we aim to produce evidence owing to the lack of evidence, although primary care is a frontline of practice.

As a contribution to undergraduate education, our division holds classes on evidence-based clinical practice to help turn medical students into skillful physicians who are able to employ an evidence-based approach.

Our postgraduate education concentrates on the methodology of clinical and epidemiological research and biostatistics. "The educational program for primary care on clinical research methodology," which was started in 2007 with the financial support of the Ministry of Education, Culture, Sports, Science and Technology in Japan, was renewed as "The Jikei Clinical Research Program for Primary-care" in 2009. Furthermore, as a subprogram of the project "New Paradigms: Establishing Centers for Fostering Medical Researchers of the Future," supported financially by the Ministry of Education, Culture, Sports, Science and Technology in Japan, "Community Health and Primary Care Medicine" was launched in the doctoral course in 2014. The main aim of these programs is to turn primary-care physicians into clinician researchers.

Research Activities

The EMPOWER-JAPAN study: Elderly Mortality Patients Observed Within the Existing Residence

Little is known concerning the prognosis of patients receiving home medical care in Japan. The EMPOWER-JAPAN study was started as a multicentered prospective cohort study to describe in-home mortality and to clarify its predictors. The cohort consisted of patients who had been newly introduced to home medical care at more than 10 teaching clinics in Tokyo, Kanagawa, and Saitama. The follow-up period was until January 31, 2017. This study was financially supported by the Japan Society for the Promotion of Science.

Development of Japanese version of Patient Centered Assessment Method

With the aging population and with increases in single households and in poverty caused by a disparate society, opportunities to respond to patients with complex problems in the bio-psycho-social aspect are expected to increase in the primary care setting. Preparing a scale to evaluate patient complexity is important. In this research, we plan to develop a Japanese version of the Patient Centered Assessment Method to evaluate patient complexity. The procedures done were forward translation, reverse translation, checking by the original author, and cognitive debriefing. After data collection at family medicine clinics, data analyses were started to evaluate the validity and reliability of the scale.

Relationship between drinking habit and patient complexity: a cross-sectional study at a remote island

As the aging progresses, not only the frequency of multimorbidity, but also social and psychological problems may increase; therefore, understanding of the complexity of patients from bio-psycho-social perspective is indispensable.

Alcohol consumption, on the other hand, causes various social problems such as restrictions on medical access as well as biomedical problems. If we can clarify the relationship between alcohol problems and the scale to evaluate patient complexity, we think that we can clarify a part of what approach should be taken on the bio-psycho-social aspects of patients with alcohol problems.

The aim of this study is to clarify, by means of a cross-sectional survey on a remote island, the relationship of problem drinking measured with the Alcohol Use Disorders Identification Test to patient complexity measured with the Patient Centered Assessment Method.

Education about lesbian, gay, bisexual, and transgender people at medical schools in Japan: a cross-sectional study

Lesbian, gay, bisexual, and transgender (LGBT) people are reportedly exposed to various risks in terms of bio-psycho-social aspects. A systematic review revealed that the knowledge and attitudes of medical staff, such as physicians and students, improved with education about LGBT.

Therefore, in this research, we conducted a questionnaire survey to clarify the current state of time and educational contents spent on education about LGBT at medical schools throughout Japan. Moreover, by comparing our survey data with the present situation in Canada and the United States, we plan to find problems in education about LGBT at medical schools in Japan.

Publications

Wakabayashi H, Matsushima M, Momosaki R¹, Yoshida S, Mutai R, Yodoshi T, Murayama S, Hayashi T, Horiguchi R, Ichikawa H (¹Teikyo University School of Medicine). The effects of resistance training of swallowing muscles on dysphagia in older people: A cluster, randomized, controlled trial. Nutrition. 2018 Apr; 48: 111-6.

doi: 10.1016/j.nut.2017.11.009. Epub 2017 Nov 27

Kaneko M, Motomura K¹, Mori H², Ohta R³, Matsuzawa H⁴, Shimabukuro A⁵, Matsushima M (¹Okinawa Chubu Hospital, ²National Hospital Organization Nagasaki Medical Center, ³Unnan City Hosp, ⁴Teine Family Medicine Clinic, ⁵Okinawa Miyako Hosp). Gatekeeping function of primary care physicians under Japan's free-access system: a prospective open cohort study involving 14 isolated islands. Fam Pract. 2018; Sep 8. doi: 10.1093/fampra/cmy084. [Epub ahead of print]

Okonogi H, Kawamura T, Joh K1, Koike K, Miyazaki Y, Ogura M, Tsuboi N, Hirano K, Matsushima M, Yokoo T, Horikoshi S², Suzuki Y², Yasuda T³, Shirai S⁴, Shibata T⁵, Hattori M⁵, Akioka Y6, Katafuchi R7, Hashiguchi A8, Hisano S⁹, Shimizu A¹⁰, Kimura K⁴, Maruyama S¹¹, Matsuo S¹¹, Tomino Y² (¹Tohoku Univ Graduate Sch Med, ²Juntendo Univ, ³Kichijoji Asahi Hosp, ⁴St. Marianna Univ Sch Med, ⁵Showa Univ, ⁶Tokyo Women's Medical Univ Sch Med, Natl Fukuoka-Higashi Medical Center, ⁸Keio Univ, ⁹Fukuoka Univ, ¹⁰Nippon Med Sch, "Univ Nagoya); Special IgA Nephropathy Study Group. A grading system that predicts the risk of dialysis induction in IgA nephropathy patients based on the combination of the clinical and histological severity. Clin Exp Nephrol. 2019 Jan; 23: 16-25. doi: 10.1007/ s10157-018-1657-0. Epub 2018 Oct 26.

Hayashi T, Matsushima M, Bito S¹, Kanazawa N², Inoue N², Luthe SK³, Wee CC⁴ (¹National Hospital Organization Tokyo Medical Center, ²National Hospital Organization Headquarters, ³Asahikawa Med Univ, ⁴Beth Israel Deaconess Medical Center). Predictors Associated with Survival Among Elderly In-Patients Who Receive Cardiopulmonary Resuscitation in Japan: An Observational Cohort Study. J Gen Intern Med. 2019 Feb; 34: 206-10. doi: 10.1007/s11606-018-4747-5. Epub 2018 Nov 27.

Komatsu T, Iguchi Y, Arai A, Sakuta K, Sakai K, Terasawa Y, Mitsumura H, Matsushima M. Large but Nonstenotic Carotid Artery Plaque in Patients With a History of Embolic Stroke of Undetermined Source. *Stroke*. 2018 Dec; **49:** 3054-6. doi: 10.1161/STROKEAHA.118.022986.

Nakano Y, Matsushima M, Nakamori A¹, Hiroma J², Matsuo E³, Wakabayashi H, Yoshida S, Ichikawa H, Kaneko M, Mutai R, Sugiyama Y, Yoshida E, Kobayashi T¹ (¹Japan Small Animal Cancer Center, Japan Small Animal Medical Center, ²Minamino Veterinary Clinic, ³Aster Animal Hospital). Depression and anxiety in pet owners after a diagnosis of cancer in their pets: a cross-sectional study in Japan. *BMJ Open.* 2019 Feb 19; **9:** e024512. doi: 10.1136/bmjopen-2018-024512.

Yoshida S, Matsushima M, Wakabayashi H, Mutai R, Sugiyama Y, Yodoshi T, Horiguchi R, Watanabe T, Fujinuma Y' ('Centre for Family Medicine Development, Japanese Health and Welfare Co-operative). Correlation of patient complexity with the burden for health-related professions, and differences in the burden between the professions at a Japanese regional hospital: a prospective cohort study. BMJ Open. 2019 Feb 21; 9: e025176. doi: 10.1136/bmjopen-2018-025176.

Nagata T, Matsushima M, Tominaga T, Watanabe T, Fujinuma Y¹ (¹Centre for Family Medicine Development, Japanese Health and Welfare Co-operative). A Cross-sectional Survey on Smoking Cessation Counseling for Primary Care (Original). Jikeikai Medical Kournal. 64: 23-30.

Nagata T, Matsushima M, Tominaga T, Watanabe T, Fujinuma Y' ('Centre for Family Medicine Development, Japanese Health and Welfare Co-operative). A Cross-sectional Survey on Smoking Cessation Counseling for Primary Care (Erratum). Jikelikai Medical Journal. 65: 21.