

## **Explanation Document for Participation in the Survey**

"The Relationship Between Competitive Learning Environments and Well-being and Motivation Among Medical Students"

### **Principal Investigator:**

Institution: Graduate School of Medicine, Akita University

Affiliation: Department of Innovative and Digitalized Medical Education

Title: Project Professor

Name: Sayaka Oikawa

Creation Date: April 13, 2024, Version 1.0

### **Introduction**

This document explains the details of the survey "The Relationship Between Competitive Learning Environments and Well-being and Motivation Among Medical Students." If you understand and agree with the contents of this research, we kindly ask you to participate as a subject in this study. There will be no disadvantage if you choose not to participate. If you have any questions, please contact the person in charge.

### **1. Approval of the Research by the Head of the Research Institution**

This research has been reviewed and approved by the following ethics review committee to ensure the protection of the rights of the participants. The research will only begin after receiving approval and permission from the head of the research institution.

Ethics Review Committee:

Name: Ethics Committee of the Graduate School of Medicine, Akita University

Chair: Dean of the Graduate School of Medicine, Akita University

Location: 1-1-1 Hondo, Akita City, Akita Prefecture

Review Content: Scientific and ethical review of the research plan and ongoing review during the research

## **2. Research Implementation Structure**

### **Principal Investigator:**

Institution: Graduate School of Medicine, Akita University

Affiliation: Department of Innovative and Digitalized Medical Education

Title: Project Professor

Name: Sayaka Oikawa

Personal Information Manager at the Graduate School of Medicine, Akita University:

Name: Sayaka Oikawa

Affiliation: Department of Innovative and Digitalized Medical Education

Title: Project Professor

### **Research Cooperation Institutions:**

Institution: Mahatma Gandhi Medical College and Research Centre

Research Collaborator: Dinker Pai

Title: Director of Medical Simulation Centre and Professor of Surgery

Institution: Aarupadai Veedu Medical College

Research Collaborator: Mahalakshmi Venkatesan Natrajan

Title: Dean of Health Professions Education

## **3. Purpose, Significance, and Background of the Study**

The acceptance rate for medical school entrance exams is known to be higher compared to other faculties. After admission, there are several hurdles, such as repeating a year or failing the national examination, before becoming a doctor. In Japan, the acceptance rate for medical schools in 2023 was about 8 times, with a retention rate of about 3-6%, depending on the year level. In India, where the population is rapidly increasing, the

acceptance rate for medical schools is about 20 times, with about 90,000 medical students entering medical school each year and about 10,000 students repeating a year annually (retention rate of 10-12%). About 130,000 medical students graduate each year, but the number of internship positions available is about 42,000, creating a highly competitive environment. Given the increasing attention to well-being, it is significant to clarify the relationship between competitive learning environments and the well-being and motivation of medical students, particularly in competitive cultural settings. This study focuses on this point and conducts a survey among medical students in India and Japan to clarify the impact of competitive learning environments on well-being and motivation.

#### **4. Research Methods and Period**

##### 4-1) Methods

This is a survey study collecting data from medical students enrolled in the first to fifth years at Mahatma Gandhi Medical College and Research Centre and Aarupadai Veedu Medical College in India, and first to sixth years at Akita University in Japan. Akita University will be the primary facility for data collection and analysis, with Mahatma Gandhi Medical College and Research Centre and Aarupadai Veedu Medical College participating as cooperative institutions.

##### 4-2) Research Period

This study will be conducted from the date of approval by the research institution until March 31, 2025.

##### 4-3) Possibility of Study Termination

The study may be terminated if it is deemed extremely difficult to achieve the planned number of subjects.

#### **5. Reasons for Selection as Research Subjects**

This study targets 200 medical students each from the first to fifth years at Mahatma Gandhi Medical College and Research Centre and Aarupadai Veedu Medical College in

India, and 200 medical students from the first to sixth years at Akita University, totaling 600 subjects. You have been selected because you are enrolled at one of the mentioned universities as a medical student. The content of the questionnaire relates to the well-being and motivation of medical students and may be influenced by students' social and economic backgrounds. Previous mental health-related studies at Akita University also influenced your selection.

#### **6. Burden, Risks, and Benefits of Participation**

This study will collect email addresses, used only if participants request to withdraw from the study after completing the questionnaire. The content of the questions is considered unlikely to cause any burden or risk to the participants.

#### **7. No Disadvantage from Non-Participation**

Participation in this study is voluntary. There will be no disadvantage if you choose not to participate.

#### **8. Withdrawal from Participation**

You can withdraw your consent and participation at any time without any disadvantage.

#### **9. Information Disclosure Method**

This study will not be registered in the public database (jRCT) as it is not a clinical study requiring public disclosure. Results will be presented at academic conferences and published in specialized journals in the field of medical education, with only statistically processed data being disclosed.

#### **10. Access to Study Materials**

If you wish to know more about the research plan or related materials, you can request

access to this information within the limits of protecting personal information and the originality of the research.

#### **11. Handling of Personal Information**

All researchers involved in this study will adhere to the Declaration of Helsinki and ethical guidelines for life sciences and medical research involving human subjects. Personal information will be managed with unique identifiers, and data analysis will use anonymized information.

#### **12. Storage and Disposal of Collected Information**

Collected information will be stored in a lockable location (Department of Innovative and Digitalized Medical Education) for three years after the study ends and then completely erased using specialized software.

#### **13. Use of Collected Information in Future Research**

There is no plan to use the collected information for other research.

#### **14. Funding and Conflict of Interest**

This study is funded by the operational grant of the principal investigator's department, with no conflicts of interest.

#### **15. Handling of Research Results**

Research results will be used for research purposes only and will not be disclosed to individual participants.

#### **16. Consultation for Research-Related Questions**

If you have any questions about this study, please contact the principal investigator at the following:

Phone: +81-18-801-7182 (within Akita University Medical School)

Principal Investigator: Sayaka Oikawa, Project Professor, Department of Innovative and Digitalized Medical Education, Graduate School of Medicine, Akita University

### **17. Economic Burden and Compensation**

There is no economic burden or compensation for participating in this study. Thank you for your understanding.

### **18. References and Literature List**

- Conference of Deans and Hospital Directors of National Medical Colleges, March 16, 2017.
- Rahman, F., Bhat, V., Ozair, A., Detchou, D. K. E., & Ahluwalia, M. S. (2024). Financial barriers and inequity in medical education in India: challenges to training a diverse and representative healthcare workforce. *Medical Education Online*, 29(1), 2302232. DOI: 10.1080/10872981.2024.2302232.
- Yusoff, M. S., Yaacob, M. J., Naing, N. N., & Esa, A. R. (2013). Psychometric properties of the Medical Student Well-Being Index among medical students in a Malaysian medical school. *Asian Journal of Psychiatry*, 6(1), 60–65. DOI: 10.1016/j.ajp.2012.09.001.
- Nomura, K., Yamazaki, T., Maeda, E., Hirayama, J., Ono, K., Fushimi, M., Mishima, K., & Yamamoto, F. (2022). Longitudinal survey of depressive symptoms among university students during the COVID-19 pandemic in Japan. *Frontiers in Psychology*, 13, 863300.