## Research paper (AY2019)

# Report on Fukuoka University's Research Branding Project Fukusou Project: Creating an Energetic and Healthy Life

## Summary

Four years have passed since Fukuoka University's research branding project began in AY2016. This year, we focused our efforts on promoting social implementation in collaboration with local municipalities in Fukuoka Prefecture. We updated our website frequently (85 updates in total, 48 in Japanese and 37 in English), and created a revised edition of the brochure providing an overview of our project. As in previous years, we engaged in the following activities: compiling a project plan and report, conducting an external evaluation, holding a research branding promotion meeting, and more.

#### 1. Introduction

The Fukusou Project aims to evolve findings from Fukuoka University's research projects into a progressive health program designed to help people gain energy needed for particular points in life, thereby translating academic "knowledge" into "value" for the public to help build a society where good health is sustainable.

# 2. Approach

The Faculties of Medicine, Pharmaceutical Sciences, Sports and Health Science, and Humanities participate to work in the following three research teams on the matters below.

- (1) Life with Children (pregnancy, childbirth, and early childhood)
- (2) School Adaptation and Healthy Development (later childhood and adolescence)
- (3) Social Participation Support and Active Senior Citizenship (mid-life and senior years)

## 3. Outcomes of the research project

The progress status of each team is as follows:

Team (1): The team engaged in the following three activities to provide prenatal, childbirth, and postnatal support: (i) held parenting and grandparenting workshops on every fourth Saturday of the month, gathering a total of 93 participants during the period up to January, (ii) held two expectant mother and father workshops, gathering 42 participants with help from the Jonan Ward Health & Welfare Center of Fukuoka City, and (iii) conducted a study on mothers who had given birth to high-risk babies, which involved 14 cases including multiple births. The team engaged in the following two activities to provide child-rearing support: (i) held the Fukuoka City Allergy Workshop with the aim of promoting understanding among nursery school staff about ways to deal with infants with food allergies, gathering 308 participants, 73% of which commented that the workshop was a very helpful experience, and

(ii) jointly held the Fukuoka City Health and Safety Workshop with the local government, which involved a basic session, training session, and review session and a step-by-step evaluation of the simulation training. The basic session was attended by 294 participants, with a satisfaction rate 90%. In the training session, 84 participants engaged in a training using the simulator Sim Junior, all of them showing satisfaction in the experience.

Team 2: Three years have passed since the team started intervention utilizing social skills training (SST). This year the team set specific target skills for each semester and held five SST sessions, which involved 150 sixth-grade elementary school students. The effects of the SST sessions were verified using social skills measures and self-esteem measures. The team asked four homeroom teachers to individually review the year's SST sessions, and conducted 15-minute semi-structured interviews. SST involves all children practicing dealing with specific everyday situations of interaction with others. Then, they can put their skills into practice with confidence. Teachers praise the children's efforts, which leads to further enhancement. This method enables children to develop more skills, which may in turn lead to improved confidence and self-esteem.

Physical education (PE) support: The team provided soccer-, swimming-, and snorkeling-related support in elementary school PE classes. More specifically, the team helped children learn dribbling in soccer, the four major strokes in swimming, and floating and breathing techniques in snorkeling. The team held five workshops for teachers under the theme of how to adopt and apply coordination training in PE classes, and verification of the effects on elementary school students is currently being conducted. With regard to support for measuring physical fitness, the team examined the new evaluation criteria for physical fitness tests that take into account month of birth. Since it was confirmed that children born between October and March had lower levels of physical fitness compared to those born between April and September, the team created new evaluation criteria for children born between October and March. This suggested that the discrepancy of evaluation due to month of birth can be reduced.

Team (3): Health promotion: The team held a health tourism program for five citizens. In the program, which involved a two-night, three-day short training camp, participants learned ways to lose weight through ensuring physical activity volume and diet management. After the camp, participants continued trying to lose weight for a year through self-management. This year, the team verified the results one month and three months after the camp. Compared to before the camp, the participants had lost 1.4 kg, 2.3 kg, and 3.6 kg in body weight and 0.8%, 2.1%, and 2.6% in body fat (numbers in the order of: just after the camp, one month after, and three months after). As compared to before the camp, the participants' body weight was reduced by 5.1% three months later. The team plans to increase the program's participants going forward.

This year, the team used senescence-accelerated mice in the animal tests involving mice that it has been conducting to verify the effects of Chinese herbal medicine on cognitive functions. The senescence-accelerated mice exhibited lethargic behavior, which reflects frailty. Intake of hachimi-jio-gan and light exercise measures both led to an improvement in the lethargic behavior. These results suggested that the prescription of either hachimi-jio-gan or exercise could be effective against mental/psychological frailty symptoms. Combination of intake of hachimi-jio-gan and light exercise led to an improvement in anxiety behavior.

Social activity support: The team launched an elderly care and support program, carried out by company employees who participated in a two-year education program for providing high-quality support to elderly people. The care and support program was provided through cooperation with the private sector, public sector, and citizens. The program's effectiveness was evaluated comprehensively based on questionnaire surveys and interviews with the company employees as well as cooperating organizations. Elderly people in the local community are keen to maintain their health and live a safe and secure life, and are concerned about dementia and disaster-mitigation measures. In addition to learning how to handle such situations, they want to cooperate with other community residents and various local organizations. We look forward to future developments of the program, including the role played by the company employees.

## 4. Conclusion

Overall, the team has held workshops, seminars, exercise lessons, and other events for local residents and actively engaged in spreading health-promotion programs. However, since there has been some deviation from the initial plan, the team should build up evidence according to an appropriate research design.

#### 5. Issues to address

The project received a positive rating in the external evaluation conducted in writing, including comments saying that it is "productive," "unique," and "timely." The evaluation pointed out the need to present objective data, expand the activities conducted by each research team to the business sector, educational field, and local community (i.e. social implementation), and assess the effects the activities may have on the local community and society in general from a broad and mid- to long-term perspective.

Based on the above, we intend to further the project while staying aware of the various challenges, and thereby contribute to the development of the university's branding strategy.