

**Program for the purpose of obesity prevention and weight loss in psychiatric day-care - Investigation through framework alteration of exercise program-**

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**Introduction :** In our psychiatric day-care, we are running an exercise program for patient's obesity prevention and weight loss. Recent participant increases, about twenty-five people, caused us to feel some difficulties when adjusting the intensity. Then the framework was altered from "All participants do high intensity aerobics" to "Three subgroups are made according to exercise intensity, participants choose from these subgroups". The purposes of this study were to compare the participant's body mass index (BMI) change in the four months after the framework alteration to that in the same period of last year, and to investigate this factor using the questionnaires after the framework alteration.

**Methods :** Participants were firstly, seventeen people who attended the exercise program for four months from the framework alteration (after the framework alteration group : AFA) and secondly, seventeen people who attended the previous exercise program in the same period of last year (before the framework alteration group : BFA). Participants have a variety of diagnosis, age, and BMI, these factors were matched. Non-paired t-test was used for comparing the change in BMI means for the two groups. Furthermore, impressions about the framework alteration (a free-answer question) was collected by questionnaires from seventeen people who participated in both exercise programs.

**Results :** Mean( $\pm$ SD) of BMI change in AFA was  $-0.61\pm 0.85$ , and that in BFA was  $+0.18\pm 0.92$ . Results showed significant difference between the two groups ( $t=2.61$ ,  $df=32$ ,  $p=0.014$ ). Nine people responded to the questionnaires, four people wrote "It was good they could exercise according to their individual physical fitness", two people wrote "It was good they could choose from the contents according to their mood or condition of the day".

**Conclusion :** The improvement of BMI changes was found after the framework alteration. From the fact that two-thirds of respondents wrote "It was good they could exercise according to their individual physical fitness, mood or condition of the day", this selectable framework might make participants active in the exercise program and be linked to the improvement of motivation. Considering the diversity of the psychiatric outpatients, in an exercise program intensity is set up for several stages, and the process of selection is thought to be beneficial for the participants.