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| **Title of Research Presentation** (Sentence case)Evaluation of Weight Loss Program for Chronic Disease Prevention |
| **Maximum 2500 characters (including spaces but excluding title)****Background/Objectives**Increased medical costs due to aging population and increasing chronic disease patients is a critical issue in developed countries. Activities focusing on health promotion and disease prevention are important in dealing with this issue. Therefore, we developed a weight loss program that is effective in helping prevent chronic disease. The aim of this study is to evaluate the effects of the developed program.**Methods**The participants of the developed program set behavioral objectives using 100 kcal cards and carry out tasks for achieving their target, which is a 5% weight loss over 180 days. The first 90 days is the weight loss phase and the remaining 90 days is the weight maintenance phase. The 100 kcal cards show the quantity of food equivalent to 100 kcal to reduce intake or the exercise time to consume 100 kcal. The 100 kcal cards can help the participants set concrete behavioral objectives. To help them continue their activities, the participants receive e-mail advice from nurses every 10 days. We also developed an IT system to improve the operational efficiency of the nurses. The participants can send their weight and behavior information to nurses electonically using the system. The nurses can confirm the weight and behavior of the participants, check off their daily tasks using the to-do list, and send e-mail using message templates that are automatically generated based on the participants’ condition.**Results**With the program using the system, 568 participants lost 4.6kg on average and 51.6% of the participants achieved their target weight. The system also reduced the time required for nurses to create e-mails from 25 minutes to 5 minutes per participant. Furthermore, the preventive effect of chronic disease was evaluated for 253 participants who we could track for 7 years. Compared to the control group, it was found that the prevalence of chronic diseases after 7 years was lower [6.5% lower for type 2 diabetes (P < 0.05), 4.7% lower for hypertension (P = 0.139), 5.3% lower for dyslipidemia (P = 0.089), and 6.8% lower for complications (P < 0.05)], and the medical cost for 7 years was 42.6% lower (P < 0.001).**Discussion**We confirmed that the developed program and system can realize effective and efficient chronic disease prevention.**Keywords**weight loss program, chronic disease prevention |