



Original Article

Weight control behaviors among Koreans

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Abstract. [Purpose] This study was performed to investigate the weight control behaviors among Koreans. [Subjects and Methods] The study is a secondary analysis. Data were extracted from the Korea National Health and Nutrition Examination Survey from 2010 through 2014. [Results] The weight control behaviors were exhibited by more than half of the participants each year. The weight control behavior that was most prevalent among Koreans was exercise. The types of exercise included walking, muscle strengthening, flexibility exercises, etc. [Conclusion] These findings indicate that exercise was confirmed as the preferred method for weight control among Koreans.

Key words: Weight control, Walking exercise

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INTRODUCTION

In general, weight control helps maintain an ideal body weight. Ideal body weight does not include the following conditions: overweight, obese, or underweight. The prevalence of overweight and obesity has been increasing globally¹⁻⁴. Overweight and obesity contributes to global health risks and critical issues. These conditions have been identified as a causal factor in a variety of physical or psychological problems such as diabetes, hypertension, cardiovascular disease, metabolic syndrome, anxiety, depression, disability adjusted life, life lost, etc¹⁻⁵. In 2010, the death rate due to overweight and obesity was estimated at approximately 3.4 million people globally⁴. Furthermore, obesity has evocated to social or economic problems as it has led to the following issues: poor academic performances, inability to work, low quality of life, social maladaptation, and a threat mortality globally⁵. As stated, in spite of major global risks, previous research findings suggested that there were little evidence of successful intervention strategies to aide in prevention of the overweight and obesity conditions⁴. Accordingly, measures of the weight control are required to reduce risks caused by overweight and obesity as well as prevent these conditions.

Weight control programs are known primarily as physical activity and diet therapy. Of these benefits of regular physical activity on physical well-being included promoting cardiorespiratory fitness, physical functioning maintaining healthy weight, and reducing risks for metabolic diseases etc⁶⁻⁸. This infers that physical activity can be an important tool in preventing obesity. In order for physical activity to be effective in weight control, a qualified exercise therapist or physiotherapist should be instructed. First of all, it is necessary for people to examine their weight control methods. Then it is needed to confirm that people are using their weight control methods appropriately. Therefore, the purpose of this study was to investigate weight control behaviors among Koreans.

SUBJECTS AND METHODS

This study is a secondary analysis study, which used data extracted from the Korea National Health and Nutrition Examination Survey (KHNES) from 2010 through 2014⁹. The total number of participants was 40,485 Koreans. All participants were over 9 years of age, with the exception of 618 people who were under the age of 6 and therefore non-applicable. The

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Table 1. General characteristics on participants

Variables /Year	2010	2011	2012	2013	2014
Gender					
Male	4,115 (45.9)	3,867 (45.4)	3,634 (45.1)	3,634 (45.1)	4,115 (45.9)
Female	4,843 (54.1)	4,651 (54.6)	4,424 (54.9)	4,424 (54.9)	4,843 (54.1)
Total	8,958 (100)	8,518 (100.0)	8,058 (100.0)	8,018 (100.0)	7,550 (100.0)
Age					
1–9	1,142 (12.7)	1,010 (11.9)	865 (10.7)	946 (11.8)	856 (11.3)
10–18	1,076 (12.0)	942 (11.1)	900 (11.2)	959 (12.0)	718 (9.5)
19–29	846 (9.4)	755 (8.9)	706 (8.8)	804 (10.0)	690 (9.1)
30–39	1,342 (15.0)	1,204 (14.1)	1,085 (13.5)	1,097 (13.7)	1,032 (13.7)
40–49	1,279 (14.3)	1,163 (13.7)	1,067 (13.2)	1,200 (15.0)	1,035 (13.7)
50–59	1,245 (13.9)	1,265 (14.9)	1,187 (14.7)	1,142 (14.2)	1,134 (15.0)
60–69	1,081 (12.1)	1,090 (12.8)	1,090 (13.5)	942 (11.7)	1,010 (13.4)
70<	947 (10.6)	1,089 (12.8)	1,158 (14.4)	928 (11.6)	1,075 (14.2)
Total	8,958 (100)	8,518 (100.0)	8,058 (100.0)	8,018 (100.0)	7,550 (100.0)
Weight control					
Yes	3,129 (34.9)	2,933 (34.4)	2,602 (32.3)	2,338 (29.2)	2,307 (30.6)
No	604 (6.7)	538 (6.3)	447 (5.3)	485 (6.0)	462 (6.1)
Non-applicable (<6 years)	19 (0.2)	41 (0.5)	139 (1.7)	186 (2.3)	232 (8.7)
No answer	570 (6.4)	623 (7.3)	721 (8.9)	741 (9.2)	659 (8.7)
System missing values	4,636 (51.8)	4,383 (51.8)	4,149 (51.5)	4,268 (53.2)	3,890 (51.5)
Total	8,958 (100)	8,518 (100.0)	8,058 (100.0)	8,018 (100.0)	7,550 (100.0)

sampling framework of the KHNES used population and housing census data available at the time of the most recent sample design. Through KHNES, data could be extracted to create a representative sample of target people, over the age of one, who live in the Republic of Korea. The Korea National Health and Nutrition Examination Survey consisted of a health survey, nutrition survey, and health screening. The health survey was investigated by interview and self-recorded methods. Weight control refers to whether or not there was effort to control weight in the previous 12 months. Weight control behaviors means that the participant is to mark all methods used to reduce or maintain their weight during the past year. Walking exercise means that participates walked daily for a minimum of over 10 minutes at a time during the previous week. Strengthening exercise means that participants performed push-ups, dumbbell, barbell, or horizontal bar during the previous 7 days. Flexibility exercises meant that participants performed stretching or barre gymnastics during the previous week. Statistical analyses were conducted using the SPSS program (version 18.0) for Windows. All data are presented as numbers (percentages).

RESULTS

Variables are presented in Table 1 and Figs. 1 and 2. The weight control was performed more than half of the participants at each year. The weight control behavior that was most prevalent among Koreans was exercise. The types of exercise included walking, muscle strengthening, flexibility exercises, etc.

DISCUSSION

The study results indicate that the weight control behaviors were exhibited by more than half of the participants each year. The weight control behavior that was most prevalent among Koreans was exercise. The types of exercise included walking, muscle strengthening, flexibility exercises, etc. These findings indicate that exercise was confirmed as the preferred method for weight control among Koreans. According to the 2002 National Health Interview Survey approximately 36% of adults, over the age of 18, had used complementary and alternative medicine for weight control in the United State⁶. Among the complementary and alternative medicine for weight control in the United States, 57.4% had used a yoga⁶. Previous research findings suggested that yoga plays an important role in ideal body weight maintenance, prevention of obesity, and risk reduction for diseases due to overweight and obesity⁵. Additionally, previous research suggested regular physical exercise or activities have multiple benefits, such as standard physical functioning, maintaining healthy weight, and mental well-being⁸. Prior research indicates that a lifestyle modification model is required to prevent overweight and obesity⁸. Prior research indicated that measuring the process of change, using the transtheoretical model, of physical activity and exercise

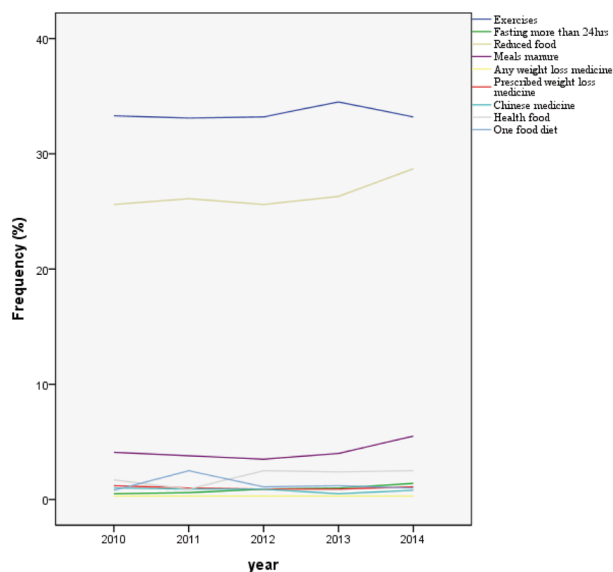


Fig. 1. Weight control behaviors among Korean

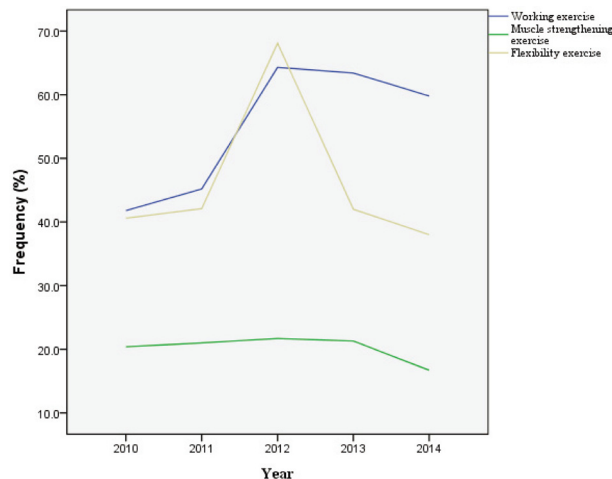


Fig. 2. Types and frequency of exercise among Korean

in overweight and obese adults supports the validity of the factorial structure for weight management¹⁰). Contrary to positive research findings, one study found that a progressive resistance exercise program with high-speed components was not effective in improving the physical function of older women with sarcopenic obesity¹¹). The multicomponent intervention including behavioral self-monitoring, computer-based training, and motivational interviewing for truck drivers was supported in the United States¹²). Additionally, diet or eating behavior programs were recommended for management of overweight and obesity^{13–15}). Findings suggest obesity management and prevention efforts require multifaceted strategies incorporating education, health policy, public health and health systems, strong primary care workforce, etc¹⁶). The findings suggest that, among Korean, walking exercise programs should be offered to obese and implemented as a continuous program¹⁷). Research found that aerobic exercise reduces weight and improves cardiopulmonary fitness in obese subjects more effectively than anaerobic exercise¹⁸). A mentored obesity management program including mentoring, physical exercise, and nutrition education was effective in lowering BMI and increasing self-esteem of childhood obesity¹⁹).

In the future, creative new approaches must be developed to promote awareness of specific eating behaviors, decrease responsiveness to high-calorie foods, reduce stress-related eating, increase motivation to adhere to weight loss strategies, engage individual's social networks and communities to encourage physical activity, improve sleep patterns, and change habitual dietary behaviors⁹). However, in spite of various ways to manage obesity, Koreans seem to prefer exercises.

In conclusion, walking, muscle strengthening, and flexibility exercises are the primary strategies for weight control among Koreans according to survey data from 2010 to 2014. However, follow up on the effects of exercises for weight control among Koreans is needed.

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