Iran J Public Health, Vol. 52, No.4, Apr 2023, pp.860-861

Letter to the Editor

The Changes in Walking Exercise in South Korea: Analysis of Health-Related Body Composition Based on a Healthy Walking Tour on Galmaetgil in Busan

Sang Soo Kim [1], Yu Ree Yi [2], *Sung Bum Ju [2]

1. *Department of Physical Education, Keimyung University, Daegu, South Korea*
2. *Department of Physical Education, Busan National University of Education, Busan, South Korea*

***Corresponding Author:** Email: accent@bnue.ac.kr

(Received 15 Sep 2021; accepted 24 Sep 2021)

Dear Editor-in-Chief

Healthy walking tours have recently drawn attention as part of healing and slow tourism in South Korea. The most well-known sites for healthy walking tours in South Korea include Ollegil in Jejudo, Dullegil in Jirisan, and Galmaetgil in Busan where walking for health is used as a local tourist attraction (1).

The 293.8 km Galmaetgil in Busan started from a road along the sea. It been extended to the downtown with 21 sections divided into Courses 1 through 9. It was declared one of the representative healthy walking tourism locations of Busan in 2015.

A survey of 1,200 users of Galmaetgil in Busan found that 97.2% of the respondents were "satisfied" with it "because it is a pleasant site for health and exercise" (43.4%) (2).

Now walking for exercise is becoming a form of tourism in South Korea. However, it is necessary for researchers to change the perception that walking for aerobic exercise to resolve obesity and relieve metabolic syndromes is only possible on a treadmill or track.

We aimed to analyze changes in health-related body compositions resulting from healthy walking tours of Galmaetgil in Busan in 2021.

Since it is difficult to find research analyzing the changes in health-related body composition resulting from healthy walking tours, like the one on Galmaetgil in Busan, this study is expected to provide meaningful public health information about healthy walking.

This study was conducted with 17 Busan residents in their forties regardless of gender with the WMA Declaration of Helsinki, who had not participated in any regular exercise or diet programs for more than six months. A four-week tour on Galmaetgil in Busan was applied as the healthy walking tour for this study and it involved a total of eight courses with two courses completed per week. The eight courses were Courses 1-1, 2-2, 3-2, 3-3, 5-1, 6-1, 8-1, and 9-1 giving a total walking distance of 111.2 km and a daily average of 13.9 km and six hours of walking per day. For the extent of the walking exercise, rating perceived exertion (RPE) was maintained at approximately 11–13. For body compositions, DSMBIA-based InBody 720 (Biospace, Korea) was used to measure the body mass index (BMI), waist hip ratio (WHR), and body fat percentages of the participants.

The data were processed using an SPSS 23.0 (IBM Corp., Armonk, NY, USA) Windows program to

perform paired *t*-tests for time-based inter-group comparisons. The significance level was set at 5%. The participant characteristics were as follows: Health walking tour group (n=17; age, 46.23±2.16 yr; height, 162.64±5.17 cm; weight, 56.20±5.13 kg).

As shown in Table 1, the BMI (*P*=0.005), the body fat percentages (*P*=0.042), and the abdominal fat ratios (*P*=0.025) of the participants significantly decreased after applying the healthy walking tour. This study confirms the health-related body composition benefits of healthy walking tours on Galmaetgil in Busan. With an understanding of healthy walking tour culture, this study suggested that walking should be considered an aerobic exercise to maintain and promote health instead of simply a physical activity.

Table 1: Changes in health-related body composition variables

Variables	***Before***	***After***	***t***	***P***
BMI (kg/m_2)	23.31±1.52	23.10±1.54	3.324	.005
WHR	.86±.03	.85±.02	2.503	.023
Body fat percentage (%)	29.81±3.72	28.90±3.91	2.211	.042

Data are presented as mean ± standard deviation

Conflict of interest

The authors declare that there is no conflict of interests.

References

1. Choi WH, Yhang WJ (2013). The application of the conceptual dimension for tourism storytelling to Galmaetgil of Busan as a tourist destination. *The Association of North-east Asian Cultures*, 37: 49-62.
2.https://www.busan.go.kr/news/sns-busan01/view?dataNo=39185 [In Korean].
3. Zhu Z, Chen H, Ma J, et al (2020). Exploring the relationship between walking and emotional health in china. *Int J Environ Res Public Health,* 17(23): 8804.