



Research Article

Investigation of Knowledge and Behaviour of Adult Individuals in Terms of Sustainable NutritionGökçen Garipoğlu¹ , Büşra Çakır¹ ¹Department of Nutrition and Dietetics, Faculty of Health Sciences, Bahçeşehir University, Istanbul, Turkey

Abstract: The objective of this study was to evaluate the knowledge and behaviour of individuals aged 18 years or above on the subject of sustainable nutrition. The study was conducted between April and May 2019 and involved a total of 202 adult individuals (85 female, 117 male), all of whom are resident in Istanbul and over 18 years of age. The socio-demographic characteristics of the participants, their knowledge on sustainable nutrition, nutritional behaviours and food preferences were determined using a questionnaire. 64,40% of the participants with an average age of $32,60 \pm 13,20$ had not heard of the concept of sustainable nutrition concept before. While there was no statistically significant difference between gender and being aware of the concept of sustainable nutrition, it was found that women exhibited more sustainable nutrition behaviours compared to men ($p < 0.05$). It was observed that the participants learned the concept of sustainable nutrition mostly from health professionals (31.9%) and social media (26.3%). 39.1% of the participants responded that they agreed with the statement "I consume vegetables and fruits grown during the season" and 36,60% of them agreed with the statement "I consume fish caught during the season with appropriate methods". Most of the respondents (44.50% and 34.60% respectively) agree with the statements "I'm careful about not wasting the food" and "I use economic foods". 44.50% of the respondents agreed with the statement "I have less food waste". In conclusion, studies on public awareness campaigns can be beneficial.

Keywords: Sustainability; sustainable nutrition; food; environment

Address of Correspondence: Büşra Çakır- busracakir@hotmail.com , 0000-0003-3271-1109, Department of Nutrition and Dietetics, Faculty of Health Sciences, Bahçeşehir University Istanbul, Turkey, Abbasağa Mahallesi, İhlamur Yıldız Caddesi No:8, 34353, Beşiktaş, Istanbul, Turkey. Gökçen Garipoğlu , 0000-0001-7430-5163

1. Introduction

The concept of “Sustainable Nutrition” has evolved over the last two decades. Although there is no universally accepted definition, the United Nations Food and Agriculture Organization (FAO) defined the definition of sustainable nutrition as ‘diets with low environmental impacts that contribute to food and nutritional security for a healthy life in present and future generations’ in 2010 (Miller and Auestad, 2013). Sustainable diets are protective and respectful to biodiversity and ecosystem, culturally acceptable, accessible, economically affordable and acquirable, nutritionally adequate, safe and healthy, and use natural and human resources in the best way. This definition reveals that human health and ecosystems are not independent of each other (Alsaffar, 2016; Miller and Auestad, 2013). Global changes such as climate change, loss of biodiversity are pose a major threat to healthy and reliable nutrition. For a healthier planet and healthy people, a healthy and reliable diet as well as sustainable production and consumption are required (World Health Organization, 2018). According to the ‘Global Food Losses and Food Waste’ study by the United Nations Food and Agriculture Organization, four billion tons of food is produced per annum for global consumption and approximately one-third of this food is lost and wasted (FAO, 2011). Developed countries account for 56% of food loss and waste, while developing countries account for the remaining 44% (Demirbaş, 2018).

The food we consume and the diets we choose are the main social indicators of health and well-being. Based on the experiences over the last half-century and current trends, drastic change in our current food strategy is required along with the promotion of fair, culturally appropriate, biodiversity-based, sustainable diets. Therefore, food companies, trade bodies, nutritionists and other health personnel, government and individuals have important duties (Burlingame and Dernini, 2012).

It is emphasized that sustainability has increased in recent years. Awareness studies on this issue are increasing worldwide. However, the number of studies on this subject is quite low in Turkey. The objective of this study was to investigate ‘Sustainable Nutrition’ behaviours and knowledge in adult individuals.

2. Materials and Methods

This study was conducted with 202 adult individuals (85 male, 117 female) over the age of 18 and resident in Istanbul. The study was conducted between April 2019-May 2019. Individuals were included by random sampling. Voluntary individuals were included in the study. The study was approved by Bahçeşehir University Scientific Research and Publication Ethics Committee on 10/04/2019. A questionnaire consisting of 17 questions was prepared by literature review and applied by a face to face interview method in order to determine the demographic characteristics of the participants, their knowledge and behaviours on sustainable nutrition.

SPSS 15.0 program was used to evaluate the analyses. Statistical significance was accepted as $p < 0.005$.

3. Results

A total of 202 adults, 117 (57.9%) female and 85 (42.1%) male, aged between 18 and 67 years participated in the study. 35.6% of the participants have previously heard of the sustainable nutrition concept and 64.4% of them have never heard of the sustainable nutrition concept. No statistically significant difference was found between gender and knowledge of the concept of sustainable nutrition ($p > 0,05$). When the profession and working status of those who are aware of the concept of sustainable nutrition are examined, the participants who are students (37.6%) are in the majority and this difference is statistically significant ($p = 0.032$).

31.9% of the participants who know the concept of sustainable nutrition heard the concept from healthcare professionals (doctors/dietitians), 26.3% from social media, 15.2% from conferences/scientific meetings, 5.5% from newspapers/magazines and 5.5% from television programs such as advertorials/news.

The participants reported that the concept of sustainable nutrition is most related to "environmentally friendly food" (55.4%) and least related to "equal and fair trade" (12.9%). 36.6% of participants indicated that the concept of sustainable nutrition is related to 'biodiversity, environment, climate'; 54.5% of participants indicated it is related to 'food safety'; 43.1% of participants indicated it is related to 'food availability'; 45% of participants indicated it is related to 'nutrient/nutrient needs'; 36.1% of participants indicated it is related to 'local food'; 49% of participants think it is related to 'seasonal food'; 13.4% of participants think it is related to cultural heritage and 40.60% think it is related to 'public health and welfare'. 39.1% of the participants responded that they agreed with the statement "I consume vegetables and fruits grown during the season" and 36.6% of them agreed with the statement "I consume fish caught during the season with appropriate methods". 44.5% of the respondents agreed with the statement "I have less food waste" and "I am careful about not wasting food". Substantial proportion of the respondents (36.6%) responded that 'I neither agree nor disagree' to the statement 'I separate my food packaging wastes for recycling'. Only 27.7% of the participants disagreed with the statement "I use my own water container instead of using a pet bottle".

Considering the relationship between gender of those who answered 'I agree' to the following statements: 'I consume high amounts of fruits and vegetables', 'I consume vegetables and fruits grown during the season', 'I consume fish caught during the season and with appropriate methods', 'I consume traditional/regional foods', 'I consume organic foods', 'I have an adequate and balanced diet' and 'I don't eat one type of food only, I eat a diversity of foods', an increase was observed in favour of women and this difference was statistically significant ($p < 0,05$).

Conclusion

A limited number of studies have been conducted in Turkey with respect to sustainability and sustainable nutrition. The studies on these subjects in the international scientific literature focus on nutrition models and greenhouse gas emissions. The objective of this study was to find out the knowledge and behaviours of the participants about sustainable nutrition. Our study indicated that the concept of sustainable nutrition was mostly communicated by health professionals and social media. While physicians and dietitians play

an important role in raising public awareness, the effective use of social media is of utmost importance in terms of raising awareness. There is no valid scale that measures knowledge and behaviours about the concept of sustainable nutrition. Further studies are needed to increase public awareness on the subject and to create a valid scale that measures awareness.

Conflict of Interest

Authors declare no conflict of interest.

Ethical Approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee (Bahçeşehir University Scientific Research and Publication Ethics Committee, 30/04/2019-E.1232).

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