# ARTICLE ALTERNATIVES

# **GREEK CONSUMERS' PERCEPTIONS OF HEALTHY DIET**

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# ABSTRACT

The idea of healthy diet has attracted research interest, since it is perceived as the main way to overcome chronic health problems. Consumers today try to incorporate healthy eating in their contemporary way of life to counterbalance the negative effects of obesity and overweight. The aim of this work was to contribute to the understanding of consumers' attitudes and perceptions towards healthy eating and their responses to various healthy eating patterns. Data were collected from 793 consumers in the city of Thessaloniki (Northern Greece) on the basis of a self-administered questionnaire. The results indicated that consumers who try to adhere to a healthy eating lifestyle feel that by consuming fresh vegetables, fruits, natural foods and fishes a healthy eating pattern is followed. Also a relationship between perceptions of healthy eating patterns and socio-economic status was found.

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**Keywords:** healthy diet, chi-squared statistics, attitudes, perceptions, consumer behavior

# Introduction

Over the last years there has been a growing public interest in the relation between nutrition, health and obesity. Healthy eating is a key factor for preventing most of today's chronic diseases (cardiovascular disease, coronary heart disease, cancer, stroke, hypertension, diabetes, dental caries, asthma, stress, overweight and obesity) (5, 19). Some dietary recommendations encouraging consumers to eat more healthily have been set and campaigned. The success of such campaigns is influenced to some extent by consumer's understanding of the term "healthy eating" but also, by social cognitive factors such as consumers' attitudes, beliefs and intentions towards healthy eating. Thus, several studies (2, 4, 8, 9, 12, 15, 16, 21, 23) have been conducted to investigate "healthy eating", attempting to determine what factors affect the healthy eating behavior of consumers.

In this particular work, an attempt is made to explore consumers' attitudes and perceptions of healthy eating patterns and healthy lifestyle.

# **Materials and Methods**

Data were collected through a personal survey of 793 consumers by a random sampling procedure, in the city of Thessaloniki (Greece) in May–June 2012. The questionnaire was designed on the basis of related literature (1, 3, 5, 6, 7, 10, 11, 13, 14, 17, 18, 20, 22, 24, 25, 26, 27, 28) and for the respondents' convenience was relatively short (20 min to complete).

Questions about health and nutrition were included in the first section of the questionnaire, while questions about the meaning of healthy eating were included in the second section. Finally, the next three sections concerned healthy foods, adoption of healthy eating and consumer attitudes towards improvement of health. The last section included only socioeconomic questions.

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Responses were registered on a five-point Likert scale ranging from 'strongly disagree' to 'strongly agree' (1 -Strongly disagree, 2 – Disagree, 3 – Neither agree, nor disagree, 4 – Agree, 5 – Strongly agree) and from 'not at all important' (1) to 'extremely important' (5). The responses of the first questions were dichotomous ("Yes"/"No"). The survey instructions stated that there are no correct or incorrect responses and consumers are advised to rate the response that best reflects their values and beliefs.

Relationships between perceptions of healthfulness of eating patterns and socio-economic status were analysed using chi-squared statistics,  $\chi^2$  test. Data manipulation and statistical analysis was conducted using SPSS, version 20.0.

### **Results and Discussion**

In the present study an attempt was made to examine consumers' attitudes and perceptions towards healthy diet, healthy foods and adoption of healthy eating.

#### **Descriptive statistics**

**Socio-economic data.** Among the 793 respondents surveyed, 69.7 % were female, 30.3 % were male, 50.5 % were married, 39.7 % were single and 9.8 % were divorced or widowed. Regarding the age distribution of the sample, the largest percentage of respondents (48 %) were 26–40 years old, the next group were 41–60 years old (32.5 %), and, finally, 8.8 % of the respondents were from 61 to 83 years old, and 10.7 % were from 18 to 25 years old. The educational level of the sample was relatively high: 45.4 % of the participants held a university degree, while 23.5 % held a school diploma and 9.1 % a college diploma; and the rest were mainly secondary-school graduates.

Regarding employment, 30.8 % of the respondents worked in non-public activities and 23.8 % in the public sector, 19.8 % were self-employed and 9.6 % declared other occupation (retired, fixed-term contract holders).

According to income, 35.4 % of the surveyed consumers declared to have a monthly family income of  $1000 \notin$  or less,

# TABLE 1

### Healthy eating patterns depending on gender

| My eating patterns are healthy | Ger    | Total  |        |
|--------------------------------|--------|--------|--------|
|                                | Female | Male   | Totai  |
| Strongly disagree              | 3.4 %  | 4.0 %  | 3.9 %  |
| Disagree                       | 26.2 % | 24.6 % | 25.1 % |
| Neither agree nor disagree     | 4.7 %  | 6.2 %  | 5.7 %  |
| Agree                          | 24.9 % | 34.1 % | 31.4 % |
| Strongly agree                 | 40.8 % | 31.1 % | 33.9 % |

 $N = 793, \chi^2 = 9.99, P = 0.05$ 

Healthy eating patterns depending on marital status

| My eating patterns are healthy | Marital status |        |          |         |  |  |  |
|--------------------------------|----------------|--------|----------|---------|--|--|--|
|                                | Married        | Single | Divorced | Widowed |  |  |  |
| Strongly disagree              | 3.1 %          | 4.9 %  | 5.8 %    | 0.0 %   |  |  |  |
| Disagree                       | 24.9 %         | 25.6 % | 26.9 %   | 4.3 %   |  |  |  |
| Neither agree nor disagree     | 33.9 %         | 37.7 % | 25.0 %   | 21.7 %  |  |  |  |
| Agree                          | 33.9 %         | 25.9 % | 34.6 %   | 56.5 %  |  |  |  |
| Strongly agree                 | 4.2 %          | 5.9 %  | 7.7 %    | 17.4 %  |  |  |  |

 $N = 793, \chi^2 = 9.99, P = 0.05$ 

Healthy eating patterns depending on the educational level

| Primary<br>school | College                               | High<br>school  | University  | Postgraduate  |
|-------------------|---------------------------------------|---|---|---|
| 6.2%              | 8.5%                                  | 5.5%  | 2.3%  | 2.9%  |
| 31.2%             | 22.5%                                 | 30.4%   | 20.6%   | 21.5%   |
| 18.8%             | 31.2%                                 | 26.0%   | 32.6%   | 31.8%   |
| 23.8%             | 28.6%                                 | 29.8%   | 38.8%   | 41.9%   |
| 20.0%             | 9.2%                                  | 8.3%  | 5.7%  | 1.9%  |
|                   | school   6.2%   31.2%   18.8%   23.8% | school Conege   6.2% 8.5%   31.2% 22.5%   18.8% 31.2%   23.8% 28.6% | school Conege school   6.2% 8.5% 5.5%   31.2% 22.5% 30.4%   18.8% 31.2% 26.0%   23.8% 28.6% 29.8% | school Conege school Oniversity   6.2% 8.5% 5.5% 2.3%   31.2% 22.5% 30.4% 20.6%   18.8% 31.2% 26.0% 32.6%   23.8% 28.6% 29.8% 38.8% |

 $N = 793, \chi^2 = 9.99, P = 0.05$ 

42.2 % receive 1000 € to 2000 € and 18.1 % between 2001 € and 3500 €. Only a 4.3 % fraction declared a monthly salary larger than  $3500 \in$ .

Although the participants generally indicated that their health status is good (92 %), the majority of them do not follow specific nutrition (73 %). Surprisingly, half of the respondents (50.4 %) did not exercise regularly, although 51.9 % had sought nutrition and health counseling in the past. More than half (55.7 %) of the respondents declared that they do not eat healthy foods.

Finally, most participants stated that they are non-smokers (60.5 %) and 50.4 % that they do not exercise.

**Perceptions of healthy eating patterns.** Almost half of the respondents (45.5 %) strongly agreed with the statement "healthy eating is balanced eating". Concerning the healthfulness of foods, the majority of the consumers (61.6 %) strongly agreed that fresh fruits and vegetables are

healthy foods. More than half of the respondents agreed that meat from poultry (65.9 %), fishes (46.2 %) and whole grains (40.7 %) must be healthy and disagreed with the statement that processed and junk food is healthy (47.3 %). In other studies, green vegetables, fruits, unprocessed meat and seafood are perceived as healthy foods, too (16, 25, 29).

In this study, concerning adoption of healthy eating, the surveyed consumers believed that "following a healthy diet gives them physical and mental health" (31.2 %) and "healthy foods are nutritious and keep them healthy" (26.2 %). A number of studies have shown that healthy eating contributes to health growth and development (5, 15, 25). As far as a healthy life style is concerned, the respondents believed that drinking a lot of water throughout the day (60.7 %), consuming plenty of vegetables and fruits (45.9 %), and not eating late at night are important to maintain a healthy lifestyle.

A large percentage of the respondents (58.7 %) answered that healthy eating offers them physical and mental health.

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# TABLE 2

### TABLE 3

More than half (56.9 %) of the respondents made conscious efforts to follow healthy eating. Finally to "drink a lot of water throughout the day" was very important for 60.7 % of the consumers to maintain and improve health. The statement "eat balanced nutrition" was an important step for the adoption of a healthy lifestyle and health improvement for a large percent of the respondents (52.7 %), too.

These results are in accordance with other similar studies in other countries (8). Healthy eating is mentioned as a balanced diet and eating products in moderation (1, 4, 16, 20). Fruits, vegetables, salads and a reduced intake of meat are used to describe healthy eating (7, 16). The consumption of foods low in fat and salt, fresh, home-made, less processed and free from preservatives are regarded as healthy eating, too (16).

#### **Chi-squared statistics**

The largest group of consumers were those (33.9 %) who strongly agreed with the statement that their eating patterns were healthy. Forty-five participants neither agreed nor disagreed with the statement (5.7 %). Although different proportions of the surveyed women (40.8 %) and men (31.1 %) strongly agreed with the statement that their eating patterns are healthy, there was no significant gender difference in the response to this statement (Table 1). In total, there was a small but significantly different pattern of distribution ( $\gamma^2 = 9.99$ , P = 0.05). More than half of the widowed consumers (56.5 %) claimed that their eating patterns were healthy (Table 2). compared with divorced (34.6 %), married (33.9 %) and single participants (25.9 %). Postgraduate (41.9 %) and university (38.8 %) degree respondents tended to agree that their eating patterns were healthy, while participants of high school (29.8 %), college (28.6 %) and primary school educational level (23.8 %) demonstrated lower levels of positive responses (Table 3). These results indicate that perceptions of eating patterns can be related to socio-economic position, which is interesting from a policy-making perspective. Such an association between socio-economic position and eating patterns is reported in other studies as well (16).

#### Conclusions

The present study was based on a survey including 793 randomly chosen participants. The aim was to examine consumers' attitudes and perceptions towards healthy diet, healthy foods and adoption of healthy eating. The results indicate that the perceptions of eating patterns are strongly related to socio-economic position. This relation could be very helpful for policy making and business strategies. Policy makers and entrepreneurs can focus their health strategies towards the most health sensitive groups.

Overall, it appears that consumers in Europe today have generally similar perceptions of what could constitute a healthy eating lifestyle. The socio-economic status is a factor that strongly influences the diversity of these perceptions and a more integrated Europe in terms of economic and social levels could lead to a more uniform behavior. Fruits and vegetables and non-processed food are considered as healthy foods and this is a message to the Common Agriculture Policy reform that is now underway in Europe.

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