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Original Research

How Does Poor Appetite Affect Nutrition in Community-Dwelling Elderly People?

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Abstract

Objectives: The study aimed to assess the impact of lifestyle habits and nutritional status on elderly individuals with varying appetite levels in the community.
Materials and Methods: The study was conducted on 6,094 elderly individuals aged ≥65 years living in the community. A questionnaire designed to assess general characteristics, anthropometric measurements, and 24-hour dietary recalls of the individuals was administered through face-to-face interviews.
Results: Elderly individuals with good appetite had significantly higher daily intake of calcium, iron, zinc, vitamin B12, and folate compared to those with poor appetite, meeting their requirements at significantly higher rates ($p<0.001$). Except for legumes, nuts and seeds, and sugar consumption, the consumption amounts of all other foods were significantly higher in elderly individuals with good appetite compared to those with poor appetite ($p<0.001$). Furthermore, those with good appetite exhibited higher median values of body mass index, upper mid-arm circumference, and calf circumference compared to those with poor appetite ($p<0.001$), with a greater proportion meeting the recommended cut-off value ($p<0.005$). Involuntary weight loss of >5% in the last six months is significantly lower in elderly individuals with good appetite compared to those with moderate and poor appetite ($p<0.001$).
Conclusion: Overall, the study underscores the influence of appetite status on food consumption, nutrient intake, and anthropometric measurements in the elderly. Identifying and addressing decreased appetite in aging individuals is crucial for designing effective dietary interventions to enhance their nutritional and health outcomes.

Keywords: *appetite, food consumption, nutrient intake, anthropometric measurements, elderly*

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Introduction

The aging process impacts nutritional status, making older individuals a vulnerable group susceptible to inadequate nutrition. In Turkey, the prevalence of malnutrition among elderly individuals living in the community is 24.5%, with a severe malnutrition rate of 13.9% (Demirdag et al., 2022). In a study conducted on a small sample, malnutrition and its risk were higher among older adults from Turkey, despite Portuguese older adults presenting a higher prevalence of chronic diseases (Öztürk et al., 2023). Numerous factors, including physical and physiological changes such as diminished taste and smell sensations, decreased appetite, tooth loss, use of dentures, and difficulties with chewing and swallowing, affect the nutritional status of older individuals. Due to the high heterogeneity in the etiology of appetite loss, which is a significant contributor to inadequate nutrition in the elderly, there is currently no universally accepted gold standard assessment tool available (de Souto Barreto et al., 2023).

Loss of appetite is a common issue not only among elderly individuals in nursing homes and hospitals but also among those living in the community. As part of the European JPI project APPETITE, data from 850 participants aged 70 years and older of the Longitudinal Ageing Study Amsterdam were analyzed, and the prevalence of self-reported poor appetite was 15.6% (Scheufele et al., 2023). Poor appetite has been reported in 10-30% of older adults in Western communities (Phillips et al., 2010). The results of a study suggest that poor sleep, lower mood, and severe pain are associated with poorer appetite in older adults (Wijnhoven et al., 2024). Older individuals with poor appetite were characterized by female gender, polypharmacy, chewing difficulties, unintentional weight loss in the last six months, and depressive symptoms (Scheufele et al., 2023). Loss of appetite has been associated with reduced food intake, increased likelihood of low energy-protein intake (Rudzińska et al., 2023), and decreased muscle mass and strength (İlhan et al., 2019). As poor appetite is an important risk factor for the development of frailty and mortality, interventions targeting underlying factors could prevent or postpone these adverse outcomes (Ni Lochlainn et al., 2021). In summary, among individuals aged ≥65 years, anorexia/appetite loss is associated with an increased risk of malnutrition, mortality, and other negative health outcomes across the community, care home, and hospital settings (Fielding et al., 2023).

The limited number of studies conducted on elderly nutrition and the causes of nutritional deficiencies in our country make it difficult to plan nutrition, provide recommendations, and set national policies regarding elderly nutrition. The aim of this study is to evaluate the impact of lifestyle habits, anthropometric measurements, and daily energy and

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nutrient intake on elderly individuals living in the community with self-reported different levels of appetite.

Methods

The study included 6,094 community-dwelling elderly volunteers aged 65 and older living in different socioeconomic regions of Ankara Türkiye. Data were collected through face-to-face interviews using a questionnaire. The questionnaire comprised inquiries concerning socio-demographic characteristics, smoking, and eating habits of elderly individuals. The study was conducted in accordance with the guidelines of the Declaration of Helsinki and approved by the Hacettepe University Faculty of Medicine Medical, Surgical, and Pharmaceutical Research Ethics Committee (Project No: HEK 07/110). Elderly individuals with physical disabilities, mental disorders, and advanced dementia were excluded from the study.

Anthropometric Measurements

Bodyweight, height, mid-upper arm circumference (MUAC), and calf circumference were measured as previously described by the researchers (Lee & Nieman, 2023). Body mass index (BMI) was calculated for each subject using the formula: weight (kg) / height (m^2). In this study population of elderly individuals, a BMI between 22 and 27 kg/m^2 was considered normal, while less than 22 kg/m^2 was categorized as underweight, and greater than 27 kg/m^2 was classified as overweight/obese. Additionally, the normal range for mid-upper arm circumference was defined as 21-22 cm and ≥31 cm for calf circumference (Marshall et al., 2016).

Dietary Intake

Dietary assessment was carried out face-to-face by dietitians using 24-hour dietary recalls, assisted by a photographic atlas of food portion sizes (Rakıcıoğlu et al., 2009). Daily energy and nutrient intakes were calculated using computer-aided nutrition database software (BeBiS, 2010). The recommended daily allowance was calculated according to the Turkish Dietary Guideline (TÜBER, 2022). Nutrient intake below two-thirds of the RDA, which is 67%, was deemed insufficient, while intake levels surpassing this threshold were regarded as adequate (Jellifffe & Jelliffe, 1989).

Assessment of Physical Activity Level

Physical activity levels were assessed by recording the daily activities of the elderly over the past 24 hours. The duration of activities was multiplied by the physical activity ratio (PAR) determined for the basal metabolic rate (BMR) per minute to calculate the total energy

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expenditure (TEE). TEE was then divided by BMR to determine the physical activity level (PAL). According to the Food and Agriculture Organization of the United Nations/World Health Organization/United Nations University expert consultation, the PAL of the elderly was categorized into three groups: sedentary (PAL: 1.40-1.69), active (PAL: 1.70-1.99), and very active (PAL: 2.00-2.40) (FAO/WHO/UNU Expert Consultation, 2005).

Appetite

Appetite status among the elderly was assessed subjectively using an open-ended question: 'How would you rate your appetite or desire to eat over the past month?' Based on the responses, appetite was categorized into three groups: good, moderate, and poor. Similarly, self-reported nutritional status was assessed subjectively using a question from the mini nutritional assessment: 'How would you describe your nutritional state?' Participants were then prompted with 'Poorly nourished?', 'Uncertain?' or 'No problems?' Results were categorized as views self as malnourished, is uncertain about the nutritional state, or views self as having no nutritional problems. Additionally, self-reported health status was evaluated subjectively with the following question: 'How would you describe your state of health compared to others your age?' Participants were prompted with 'Not as good as others of your age?', 'Not sure?', 'As good as others of your age?' or 'Better?' Results were categorized as views of self as not good, not knowing, good, or better.

Statistical Analysis

Statistical results were evaluated using Statistical Packages for Social Sciences (SPSS 23, SPSS Inc. Chicago, IL; USA). The normality of the data was assessed using the Shapiro-Wilk test. Categorical data were presented as N (%), while normally distributed continuous data were expressed as mean±SD and non-normally distributed continuous data were presented as median (interquartile range). Differences in general characteristics, food group consumption, and energy and nutrient intake among the appetite groups were examined using univariate multinomial logistic regression with appetite (good vs moderate or poor) as the dependent variable. The p value <0.05 was considered statistically significant.

Results

General characteristics of the elderly according to appetite level are presented in Table 1. The mean age was 71.5±5.9 (X±SD) years old in the study. In the study sample, 66.6% of the elderly individuals reported having good appetite, 26.6% reported moderate appetite, and 6.8% reported poor appetite. The proportion of women reporting poor appetite was found to be

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higher than men (73.9% vs. 26.1%, respectively). Additionally, the median age of elderly individuals with poor appetite was higher than those with good appetite ($p<0.001$).

The number of elderly individuals reporting poor appetite was significantly higher among those with low education levels (illiterate, literate, and primary school graduates) compared to those with good appetite ($p<0.05$). However, among elderly individuals with high school and university education, although the proportion of those with good appetite was higher than those with poor appetite, the difference was not significant. The proportion of elderly individuals not engaging in regular physical activity was higher among those with poor appetite compared to those with good appetite ($p<0.05$). Furthermore, the rate of sedentary lifestyle among elderly individuals with moderate and poor appetite was found to be higher compared to those with good appetite ($p<0.005$) (Table 1).

When compared to elderly individuals with good appetite, those with poor appetite ate their meals alone at a significantly higher rate (26.6% vs. 14.8%, $p<0.001$), while the number of elderly individuals eating meals with friends was higher among those with good appetite (73.4% vs. 85.2%, $p<0.001$). Although there was no difference in appetite levels with tooth loss, the rate of denture use was higher among elderly individuals with good appetite ($p<0.001$). Additionally, chewing and swallowing difficulties were found to be lower among elderly individuals with good appetite compared to those with moderate and poor appetite ($p<0.001$).

Among elderly individuals with good appetite, the median values of body mass index, upper mid-arm circumference, and calf circumference were significantly higher compared to those with moderate and poor appetite ($p<0.001$), and the proportion of individuals falling within the recommended cut-off values range according to the standard evaluation was found to be higher ($p<0.005$). Additionally, involuntary weight loss in the last six months was significantly lower among elderly individuals with good appetite compared to those with moderate and poor appetite ($p<0.001$).

The rate of chronic disease occurrence and the use of more than three medications per day is higher among elderly individuals with poor appetite compared to those with good appetite ($p<0.001$). Elderly individuals with good appetite report better health status at a significantly higher rate than those with poor appetite. Additionally, the proportion of elderly individuals who perceive themselves as poorly nourished is significantly higher among those with poor appetite compared to those with good appetite (36.7% vs. 4.1%, respectively) ($p<0.001$) (Table 1).

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Table 1. General Characteristics of the Elderly According to Appetite Level

	Appetite		
	Good (n= 4057)	**Moderate (n= 1620)**	**Poor (n= 417)**
Age (years)	70 (66-75)	71 (67-76)***	73 (68-78)***
Gender			
Male	2112 (52.1)	647 (39.9)***	109 (26.1)***
Female	1945 (47.9)	973 (60.1)***	308 (73.9)***
Education level			
Illiterate	901 (22.2)	506 (31.2)***	196 (47.0)***
Literate	641 (15.8)	298 (18.4)*	72 (17.3)**
Primary school	1518 (37.4)	498 (30.7)	98 (23.5)*
Middle school	366 (9.0)	138 (8.5)	24 (5.8)
High school	391 (9.6)	106 (6.5)	20 (4.8)
University	240 (5.9)	74 (4.6)	7 (1.7)
Smoking status			
Never smoked	2383 (58.7)	1048 (64.7)***	293 (70.3)
Former smoker	1175 (29.0)	425 (26.2)	77 (18.5)
Current smoker	499 (12.3)	147 (9.1)	47 (11.3)
Regular physical activity status			
Yes	374 (9.2)	129 (8.0)	21 (5.0)
No	3683 (90.8)	1491 (92.0)	396 (95.0)*
Physical activity level			
Sedentary	2962 (73.0)	1372 (84.7)***	379 (90.9)**
Active	915 (22.6)	216 (13.3)	33 (7.9)
Very active	180 (4.4)	32 (2.0)	5 (1.2)
Presence of chronic disease (≥2 diseases)	2689 (66.3)	1175 (72.5)***	326 (78.2)***
Medication use (≥3 medications/day)	1224 (30.2)	529 (32.7)	167 (40.0)***
Self-view of health status			
Not as good	249 (6.1)	188 (11.6)***	109 (26.1)***
Does not know	400 (9.9)	337 (20.8)***	112 (26.9)***
As good	2472 (60.9)	910 (56.2)***	169 (40.5)***
Better	936 (23.1)	185 (11.4)	27 (6.5)
Eating meals with whom			
Alone	601 (14.8)	358 (22.1)	111 (26.6)***
With friends	3456 (85.2)	1262 (77.9)	306 (73.4)***
Tooth loss	3499 (86.2)	1420 (87.7)	369 (88.5)
Usage of dentures	3032 (74.7)	1220 (75.3)	280 (67.1)***
Difficulty in chewing/swallowing	677 (16.7)	401 (24.8)***	165 (39.6)***
Self-view of nutritional status			
Views self as being malnourished	167 (4.1)	147 (9.1)***	153 (36.7)***
Is uncertain of nutritional state	542 (13.4)	451 (27.8)***	115 (27.6)***
Views self as having no nutritional problem	3348 (82.5)	1022 (63.1)	149 (35.7)
Body mass index (kg/m^2)	28.6 (25.8-32.0)	27.8 (25.1-30.7)***	27.1 (23.3-30.3)***
<22	207 (5.1)	121 (7.5)***	64 (15.3)***
22-27	1185 (29.3)	560 (34.6)***	142 (34.1)***
>27	2657 (65.6)	937 (57.9)***	211 (50.6)***
Mid-upper arm circumference (cm)	31 (28-33)	30 (28-33)**	29 (26-32)***
<21	12 (0.3)	4 (0.2)	6 (1.4)**
21-22	32 (0.8)	26 (1.6)**	21 (5.0)***
≥22	4013 (98.9)	1590 (98.1)	390 (93.5)
Calf circumference (cm)	36 (33-38)	35 (32-37)***	34 (31-37)***
<31	256 (6.3)	158 (9.8)***	79 (18.9)***
≥31	3801 (93.7)	1462 (90.2)	338 (81.1)
Involuntary weight loss >%5 in the last 6 months	298 (7.3)	179 (11.0)***	90 (21.6)***

N (%) for categorical variables, mean ± SD for continuous variables with normal distribution; median (interquartile range) for non-normal continuous variables. *p<0.05; **p<0.005; ***p<0.001 compared to good appetite (univariate multinomial logistic regression).

Table 2 presents the energy and nutrient intake, adequacy of intake, and daily food consumption amounts of the elderly according to appetite status. Daily energy intake was

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significantly higher among elderly individuals with good appetite compared to those with moderate and poor appetite (p<0.001). The proportions of energy derived from carbohydrates, protein, and fat did not differ according to appetite level among the elderly. When compared to elderly individuals with poor appetite, those with good appetite had significantly higher daily intake of calcium, iron, zinc, vitamin B12, and folate, as well as higher percentages of meeting the requirements for these nutrients (p<0.001).

Table 2. Daily Intake of Energy and Other Nutrients, as well as the Percentage of Meeting the Requirements, and Consumption Amounts of Foods by Appetite Status of the Elderly

	Appetite		
	Good (n= 4057)	**Moderate (n= 1620)**	**Poor (n= 417)**
Energy (kcal/day)	1567 ± 766	1429 ± 624***	1198 ± 552***
Energy (kcal/kg)	21.2 ± 12.1	20.4 ± 9.2*	18.8 ± 9.7***
Macronutrients			
Fat (E%)	35.0 ± 8.6	34.4 ± 8.8*	34.5 ± 10.1
Carbohydrate (E%)	49.8 ± 8.6	50.2 ±8.8	50.2 ± 10.3
Protein (E%)	14.0 ± 3.5	14.1 ± 3.5	14.0 ± 4.0
Protein (g/kg)	0.74 ± 0.45	0.72 ± 0.36	0.65 ± 0.36***
Fiber (g)	19.5 ± 11.1	18.1 ± 14.2***	13.2 ± 8.8***
Micronutrients			
Calcium	599.5 ± 505.3	568.8 ± 355.0*	483.9 ±314.6***
Calcium (%RDA)	63.1 ± 53.2	59.9 ± 37.4*	50.9 ± 33.1***
Iron	10.0 ± 5.8	9.2 ± 6.2***	7.6 ± 5.0***
Iron (%RDA)	90.5 ± 53.1	83.4 ± 56.4***	68.7 ± 45.0***
Zinc	7.8 ± 4.4	7.2 ± 4.1***	5.8 ± 3.0***
Zinc (%RDA)	76.5 ± 41.6	72.7 ± 42.6**	59.9 ± 29.8***
Vitamin B12	2.42 ± 20.97	1.82 ± 2.57	1.50 ± 1.68***
Vitamin B12 (%RDA)	60.6 ± 524.2	45.5 ± 64.3	37.5 ± 42.0***
Folate	323.4 ± 326.4	299.8 ± 325.6***	238.6 ± 156.4***
Folate (%RDA)	98.0 ± 98.9	90.8 ± 98.7***	72.3 ± 47.4***
Food groups			
Dairy	212.6 ± 192.8	205.1 ± 167.7	179.0 ± 157.8***
Breads and other cereals	62.2 ± 68.4	62.3 ± 60.5	48.6 ± 50.2***
Vegetables and fruits	868.1 ± 935.2	756.3 ± 963.1***	615.4 ± 480.1***
Meats and egg	69.2 ± 78.2	59.0 ± 66.3***	54.2 ± 77.2***
Legumes and nuts	11.5 ± 28.6	11.6 ± 27.9	9.9 ± 28.6
Fats	26.7 ± 28.2	23.8 ± 17.5***	20.3 ± 17.9***
Sweets	14.7 ± 27.9	13.4 ± 20.6	13.0 ± 19.9

Data as mean ± SD. *p<0.05; **p<0.005; ***p<0.001 compared to good appetite (univariate multinomial logistic regression). E: Energy; RDA: Recommended Dietary Allowance.

Figure 1 depicts the daily consumption amounts of foods among the elderly according to appetite level. Except for legumes, nuts and seeds, and sugar consumption, the consumption amounts of all other foods were significantly higher among elderly individuals with good appetite compared to those with poor appetite (p<0.001).

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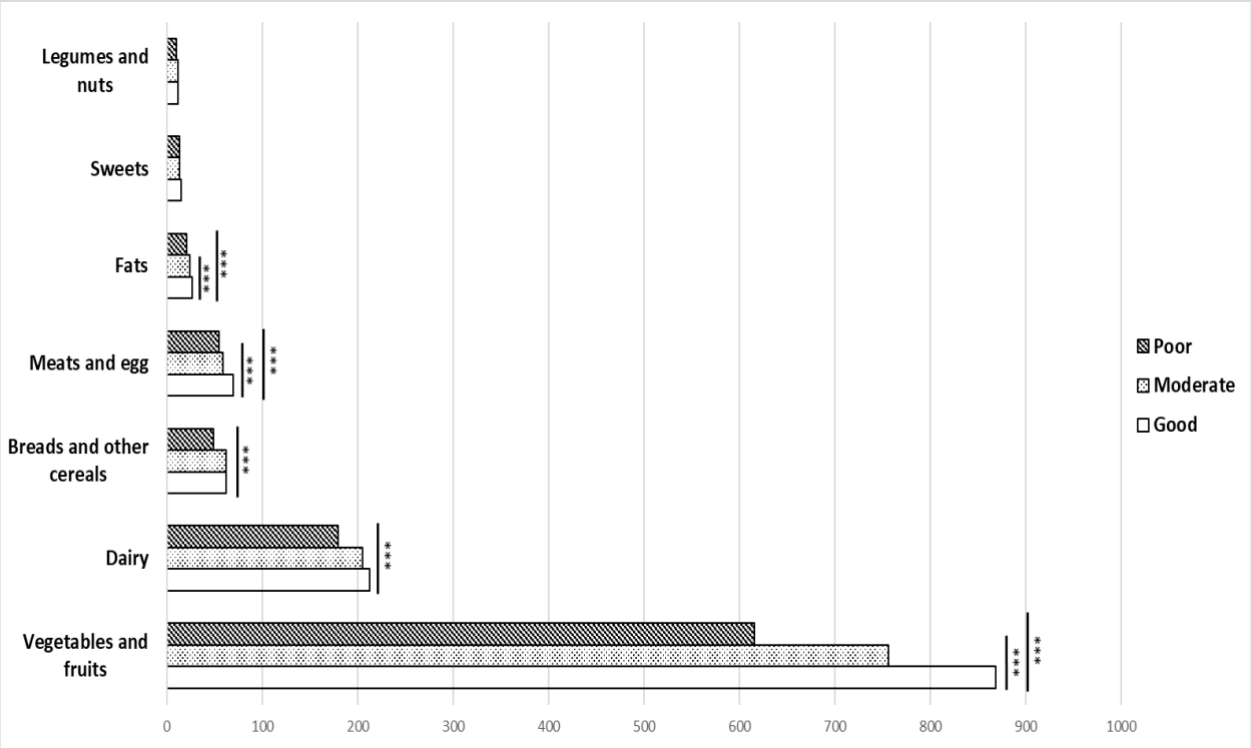

***p<0.001 compared to good appetite (univariate multinomial logistic regression)

Figure 1. Daily Consumption Amounts of Foods According to Appetite Status of the Elderly

Discussion

In this study, the impact of appetite on nutritional status, food, and nutrient intake was examined among elderly individuals living in the community with different appetite levels. Decreased appetite is commonly observed with aging. Prevalence of appetite loss ranging from 5% to 25% has been reported among elderly adults in the community (Fielding et al., 2023). In a systematic review, the weighted total prevalence of anorexia of aging in all the included studies was found to be 11.3%. Among frail and pre-frail participants, loss of appetite was reported in 20.5%. Anorexia prevalence varies from about 10% among community-dwelling older adults to over 30% in acute wards and nursing homes (Rudzińska et al., 2023). In this study, it was reported that most elderly individuals living in the community at home had good appetite, while 26.6% reported moderate appetite and 6.8% reported poor appetite. In a study conducted in Europe on 850 individuals aged ≥70 years (Longitudinal Ageing Study Amsterdam), it was found that elderly individuals with poor appetite were mostly female, had multiple medication use, chewing problems, involuntary weight loss in the last 6 months, and depressive symptoms (Scheufele et al., 2023).

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In this study, it was observed that the proportion of women reporting poor appetite was higher than men, and elderly individuals with poor appetite were older ($p<0.001$) (Table 1). Given the worsening of appetite with age and especially the higher prevalence of poor appetite among women, it can be said that the nutritional status of these groups may also be affected. Indeed, a study conducted on elderly individuals living in a community in Turkey reported that women had higher rates of malnutrition, and age was associated with malnutrition (Demirdag et al., 2022). A systematic literature study demonstrates that, among individuals aged ≥65 years, anorexia/appetite loss is associated with an increased risk of malnutrition, mortality, and other negative outcomes across the community, care home, and hospital settings (Fielding et al., 2023). In a study, it was observed poor appetite has an independent association with lower skeletal muscle mass and decreased muscle strength (İlhan et al., 2019). A systematic review showed that anorexia of aging is an important health-related issue in older individuals. This was especially true of older persons with frailty or pre-frailty (Rudzińska et al., 2023). In a cross-sectional study conducted with 198 elderly, it was found the poor diet quality of the elderly was associated with their education, appetite, nutritional, and smoking status in Turkey (Baltacı et al., 2023).

In the Reykjavik study, which examined a total of 5764 individuals, 804 (14%) elderly individuals reported having conditions affecting their appetite or eating abilities. These elderly individuals reported significantly lower lean mass and body mass index, lower grip strength, and weaker physical function compared to those without any conditions affecting their appetite (Chang et al., 2021). In this study, the rate of chronic disease occurrence and the use of more than three medications per day were higher among elderly individuals with poor appetite compared to those with good appetite. Additionally, most elderly individuals who reported poor health status and inadequate nutrition also reported poor appetite (Table 1). Having a good appetite in the elderly appears to be effective in improving their nutrition and overall health status.

In a study among community-dwelling older adults, physical activity was associated with having a good appetite, and sedentary behavior was associated with having moderate to poor appetite (Tsai et al., 2023). In this study, it was found that elderly individuals with poor appetite were more likely to lead a sedentary lifestyle (Table 1). It is known that regular physical activity is an appetite-enhancing factor in the elderly (Hung et al., 2019). Results from a study showed that 10.8% of ≥80 years old community-dwelling adults experienced poor appetite and that poor appetite was independently associated with increased odds of low physical function

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(Buhl et al., 2023). Social isolation was related to poor dietary variety among community-dwelling older adults (Yokoro et al., 2023). In this study, it was observed that elderly individuals with good appetite ate their meals less frequently alone and more frequently with friends compared to those with poor appetite (Table 1). Participation in social activities has been reported to have a positive effect on appetite and psychological well-being in elderly individuals (Khalaf et al., 2023). In this study, although there was no difference between tooth loss and appetite levels, the rate of chewing and swallowing difficulties was significantly lower in elderly individuals with good appetite (Table 1). A longitudinal study conducted on individuals aged 60 and over living in the community found that initial oral function (dental and swallowing status) was associated with nutritional status after two years (Sawada et al., 2023).

Appetite loss in elderly individuals is considered an early indicator of inadequate nutrition (Scheufele et al., 2023). In a study, the different appetite levels were related to weight loss and energy intake. The results of the study showed several differences in food consumption among community-dwelling older persons with various appetite levels (van der Meij et al., 2017). Elderly adults with anorexia aging had a lower intake of both energy and all macronutrients (Öztürk, 2022). In this study, elderly individuals with good appetite were found to have significantly higher daily energy and protein intake per kilogram of body weight compared to those with moderate and poor appetite levels (Table 2). Adequate protein intake per meal is important in elderly individuals for preserving muscle strength, reducing bone tissue loss (de Souza Genaro & Martini, 2010), maintaining a strong immune system (Weyh, Krüger & Strasser, 2020), and ensuring healthy cognitive performance (Coelho-Júnior et al., 2021).

In elderly individuals, a BMI of <22 kg/m^2 and unintentional weight loss of >5% in the last six months are considered indicators of poor nutrition (Miller & Wolfe, 2008). In this study, the proportion of elderly individuals with a BMI of <22 kg/m^2 and >5% unintentional weight loss in the last six months was lower among those with good appetite. This can be attributed to sufficient daily energy and protein intake in elderly individuals with good appetite. The measurement values of upper mid-arm circumference and calf circumference within the standard range are considered indicators of good nutrition and adequate protein stores (Pohlhausen et al., 2016). In this study, the measurement values of upper mid-arm circumference and calf circumference were higher in elderly individuals with good appetite compared to those with poor appetite. All these results indicate that poor appetite in the elderly may negatively affect anthropometric measurements.

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Adequate intake of calcium is particularly important in elderly nutrition for the preservation of bone health (Karpouzos et al., 2017). Sufficient iron intake is essential for preventing anemia and supporting the immune system (Cronin et al., 2019). Adequate zinc intake ensures the maintenance of a healthy immune system (Wessels et al., 2017). Adequate intake of vitamin B12 and folate is necessary for blood production, prevention of cardiovascular diseases, and maintenance of cognitive performance (Horvat et al., 2016). In this study, when comparing elderly individuals with good appetite to those with poor appetite, it was found that the daily consumption of high-quality protein sources such as meats and eggs, protein- and calcium-rich foods like dairy products, vitamin- and mineral-rich foods such as vegetables and fruits, and energy-rich sources like bread and other grains was significantly better. However, there was no difference in the consumption of sugar and sugary foods based on appetite status (Figure 1). Therefore, elderly individuals with good appetite showed a significantly higher percentage of meeting the daily requirements for calcium, iron, zinc, vitamin B12, and folate through their diet (Table 2). This indicates that poor appetite among the elderly negatively affects nutrient intake and leads to a decrease in food consumption. It is important to identify specific food preferences in older adults with poor appetite and nutrition interventions that aim to improve diet (van der Meij et al., 2017). In a study evaluating the energy and nutrient intake of elderly individuals in Turkey, the importance of providing a simple approach that encourages choosing high-quality diets was emphasized (Yabanci-Ayhan et al., 2015). It was recommended that the identification of older patients with anorexia is essential to designing dietary interventions likely to improve both the physiologic status and the functionality of these patients (Rudzińska et al., 2023).

As a result of this study, it has been observed that appetite status negatively affects food consumption in the elderly, thereby reducing the intake of essential nutrients such as energy and protein per kilogram of body weight, which are important for healthy nutrition in aging individuals. Elderly individuals with good appetite showed significantly higher percentages of meeting the daily requirements for calcium, iron, zinc, vitamin B12, and folate through their diet compared to those with poor appetite. Additionally, it was found that anthropometric measurements, which are indicators of nutritional status, are also influenced by appetite status. In elderly individuals with good appetite, involuntary weight loss of >5% in the last six months, considered an indicator of nutritional deficiency, was significantly less prevalent. The proportion of elderly individuals with body mass index, upper mid-arm circumference, and calf circumference measurements falling within the accepted range of cut-off values, indicating

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healthy status, was higher in those with good appetite. In this context, it is concluded that identifying elderly individuals with decreased appetite due to aging is necessary to design dietary interventions that can improve their nutrition and health status.

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Declaration of Conflicting Interest

The authors declare no conflicts of interest.

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