

## EVALUATION OF NUTRITIONAL BEHAVIOR AND FOOD PERSPECTIVES OF WOMEN OVER 65 WHO RECEIVED CALORIE-RESTRICTED DIET

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### Abstract

This study aims to conduct a qualitative study to evaluate the nutritional behaviors and food perspectives of the elderly, together with the healthy nutrition practice, the effectiveness and benefits of which are frequently reported in the literature. To study; in Karabük province, Safranbolu District Health Directorate, who applied to the Obesity Polyclinic; a total of 25 volunteer women over the age of 65 who received healthy nutrition counseling services participated in the study. The research, which was designed using the semi-structured interview method based on the qualitative research approach. There were 25 female participants with a mean age of 68.0±1.2 years. While the average body weight of the participants was 86.00±19.00 kg; the average height is 163.00±9.00 cm. The average BMI of the participants was 32.30±3.26 kg/m<sup>2</sup>. Participants generally mentioned that the environment, culture, family, and friends they live in have negative effects on their eating habits and experiences. Our study compared to previous studies; suggests that while also accepting other health-related factors, such as mental and physical function, it is recommended to also address weight perception when done in a non-stigmatizing way.

**Anahtar Kelimeler:** Elderly nutrition, qualitative study, obesity, weight loss.

## KALORİ KISITLI BESLENME TEDAVİSİ UYGULANAN 65 YAŞ ÜSTÜ KADINLARIN BESLENME DAVRANIŞI İLE BESİNE BAKIŞ AÇILARININ DEĞERLENDİRİLMESİ

### Öz

Bu çalışmanın amacı, literatürde etkinliği ve faydaları sıklıkla bildirilen sağlıklı beslenme uygulaması ile yaşlıların beslenme davranışları ve gıdaya bakış açılarının değerlendirilmesine yönelik nitel bir çalışma yapmaktır. Çalışmaya Karabük ili Safranbolu İlçe Sağlık Müdürlüğü Obezite Polikliniği'ne başvuran ve beslenme danışmanlığı hizmeti alan 65 yaş ve üstü toplam 25 gönüllü kadın katılmıştır. Çalışma nitel araştırma yaklaşımı temel alınarak yarı yapılandırılmış görüşme yöntemi kullanılarak yapılmıştır. Katılımcıların yaş ortalaması 68.0±1.2 yıldır. Katılımcıların ortalama vücut ağırlıkları 86.00±19.00 kg iken; ortalama boy uzunlukları 163.00±9.00 cm'dir. Katılımcıların ortalama BKİ'si 32.30±3.26 kg/m<sup>2</sup>'dir. Katılımcılar genel olarak yaşadıkları çevre, kültür, aile ve arkadaşların yeme alışkanlıklarını ve deneyimlerini olumsuz etkilediğinden bahsetmişlerdir. Çalışmamız daha önceki çalışmalara göre; zihinsel ve fiziksel işlev gibi sağlıkla ilgili diğer faktörleri de kabul ederken, damgalayıcı olmayan bir şekilde yapıldığında ağırlık algısının da ele alınmasının önemini vurgulamaktadır.

**Keywords:** Yaşlı beslenmesi, nitel çalışma, obezite, ağırlık kaybı.

## 1. INTRODUCTION

Aging is defined as the progressive decline of functions at the cell, tissue, organ, and body level, which begins with biochemical reactions in the cell with the effect of hereditary structure and external factors (1). Improving health services in the world, increasing basic health services such as healthy nutrition practices, physical activity, vaccination, and sanitation; gradually prolonging life expectancy, and increasing the elderly population (2,3). The aging of the population affects society in all aspects, from health to social security, job opportunities, education, and family life (4). According to the data of the Turkish Statistical Institute, the rate of the elderly (over 65 years old) population, which was 7.5% in 2012, will increase to 10.2% in 2023; 12.9% in 2030; 16.3% in 2040; It is estimated that it will be 22.6% in 2060 and 25.6% in 2080 (5,6).

According to the World Health Organization, health; It is defined as a state of complete physical, mental and social well-being of the individual (8). In addition to prolonging the life expectancy at birth, the quality of life (quality of life) should also be increased. Individuals should acquire adequate, balanced and correct eating habits and be physically active; it is effective in maintaining a healthy body weight, reducing the risk of chronic diseases and increasing the quality of life (7). Successful aging; It is a concept that indicates the existence of a complete state of well-being not only in terms of health, but also in terms of psychological and social aspects. It is thought that the progression of geriatric symptoms and chronic diseases will be prevented with a healthy diet in elderly individuals (8). Obesity, diabetes, oral/dental health diseases and various cancers are the leading diseases associated with nutrition in the elderly (9). With the advancing age, the energy requirement of the individual decreases. This decrease is thought to be 5% per decade after the age of 50. The decrease in energy expenditure is due to changes in body composition. In old age, there is an increase in body fat tissue, a decrease in lean body mass or muscle density (sarcopenia). Muscle cell metabolism and body proteins decrease. Accordingly, the basal metabolic rate and therefore the energy requirement decreases (10,11,12). Consumption of food more than needed during this period causes obesity. Obesity; It is a risk factor for hypertension, hyperlipidemia, diabetes, cardiovascular diseases, some types of cancer and osteoarthritis (12,13). In addition, obesity reduces mobility and reduces the quality of life by preventing activities of daily living, making the individual dependent on a bed or chair (14). Overweight and obesity are modifiable conditions that can be prevented with lifestyle interventions to improve eating habits and increase physical activity. It is essential to initiate effective education and intervention programs to promote better health in the elderly. This also means that there is a need for a better understanding of what older consumers think, how they make decisions about food, nutrition and health, and which resources they rely on most (15,16). Women who prepare food for all family members, and mostly older women who also take care of grandchildren; It plays an active role in the formation and change of nutritional habits of future generations. Therefore, changing the nutritional habits of elderly women is important for society (17).

When planning nutrition in the elderly; it should be aimed both to consider the frequently encountered nutrient deficiency situation and to prevent chronic diseases and to provide medical nutrition therapy according to their needs (15). A multidisciplinary approach is required in order to maintain the quality of life and to minimize the complications that may occur with aging (17). Food consumption, nutritional habits in elderly individuals; There are studies examining the effects on anthropometric measurements and blood parameters. However; No qualitative studies have been found on the evaluation of nutritional behaviors and food perspectives of elderly individuals aged 65 and over who are treated with calorie-restricted nutrition. In this context, the aim of this study is; in women aged 65 and over; The aim of this study is to conduct a qualitative study to evaluate the nutritional behaviors and food perspectives of the elderly, together with the healthy nutrition practice, the effectiveness and benefits of which are frequently reported in the literature.

## 2. MATERIALS AND METHODS

### 2.1. Research Group

To this study; in Karabuk province, Safranbolu District Health Directorate, who applied to the Obesity Polyclinic; a total of 25 volunteer women over the age of 65 who received healthy nutrition counseling services participated. Approval for the study was obtained from the Non-Interventional Ethics Committee of Karabuk University with the number 2022/1158.

### 2.2. Research Design

The research, which was designed using the semi-structured interview method based on the qualitative research approach, was carried out in the province of Karabuk in November 2022. The qualitative research method, it is tried to make sense of how the participants perceive and interpret the basic concepts in the research (18). Qualitative research is aimed at reaching data fullness instead of calculating sample size. In the literature, there are qualitative studies conducted with 6-15 participants in which the nutritional status of elderly individuals (nutritional habits, eating behaviors, psychosocial aspects in the formation of nutritional habits, attitudes towards food and nutrition) are evaluated (19,20). Based on these data, it was planned to reach data saturation with 25 participants. The population of the study consisted of women aged 65 and over residing in Karabuk. Those with malignancies or severe chronic kidney, heart, or endocrine diseases who would not be able to adapt to the nutritional program, and individuals under 65 years of age were not included in the study.

### 2.3. Data Collection

At the beginning of the study, data were collected by the researchers using the face-to-face interview method using a questionnaire consisting of 17 questions in total, including "personal information and nutritional characteristics", and a "semi-structured interview form" consisting of 11 questions in total, prepared by the researchers using the literature.

The interviews were planned according to the time available to the participants and lasted approximately 40 minutes. To prevent data loss during the interview, the participants were informed and their permission was requested so that voice recording could be made, and the interviews with the participants who accepted were audio recorded. Before the analysis, the recordings of the interviews were written down. Interviews with the participants who did not accept the audio recording were recorded in writing, and the notes were taken right after the interview was reviewed to ensure that no gaps were left. At the end of the interviews, the participants were informed about the issues they needed.

### 2.4. Statistical Methods

In qualitative research, the data were analyzed and interpreted with the SPSS program. It is aimed to reach the concepts and relationships that can explain the data collected by content analysis. The qualitative data obtained during the research were analyzed using the descriptive analysis method. descriptive analysis; is a discussion in which the data are shown and described as they are, and it consists of the stages of forming a framework, processing the data according to this framework, defining the findings, and interpreting the findings. In the study, first of all, frames were created from the research questions. The data obtained according to the frameworks created during the processing of the data were read and the direct quotations to be used for this purpose were determined. Responses from the participants are given in quotation marks under appropriate frames. Quotations are given in

italics and the code names of the participants are presented in parentheses. The data prepared during the definition of the findings were directly supported by the nutritional attitudes and behaviors of the participants and presented in the findings section. In the last stage, the findings were interpreted by comparing different cases based on the cause-and-effect relationship. Socio-demographic data from the participants; are indicated by numbers, percentages, and averages.

### 3. RESULTS

This study included 25 female participants with a mean age of  $68.0 \pm 1.2$  years. While the average body weight of the participants was  $86.00 \pm 19.00$  kg; the average height is  $163.00 \pm 9.00$  cm. The average BMI of the participants; was  $32.30 \pm 3.26$  kg/m<sup>2</sup>; According to BMI groups, 5 (20.0%) were normal, 4 (16.0%) were overweight, 7 (28.0%) were obese, and 9 (36.0%) were morbid obese (Table 1).

**Table 1. Distribution of Participants' Anthropometric Measurements**

Anthropometric Measurements	Mean $\pm$ SD	P
Body weight (kg)	$86.00 \pm 19.00$	<b>0.002*</b>
Length (cm)	$163.00 \pm 9.00$	<b>0.000*</b>
BMI (kg/m <sup>2</sup> )	$32.30 \pm 3.26$	0.302
Distribution of BMI by Individuals	n	%
Normal	5	20.0
Overweight	4	16.0
Obese	7	28.0
Morbid obese	9	36.0

BMI:Body mass index

72.0% of the participants do not skip meals; 76.0% of them have 2 main meals a day, 48.0% of them have 3 snacks and 44.0% of them have 2 snacks. The skipped meal time is usually (76.0%) lunch. 40.0% of the participants consume between 6-10 glasses of water daily, and 60.0% consume more than 10 glasses of water. Considering the participants' night sleep duration; While 68.0% sleep between 7-9 hours and 32.0% between 4-6 hours, there is no daytime sleeper (Table 2).

Questioning individuals' nutritional habits and attitudes towards foods; The statements of the participants (P) regarding the question "What/what comes to your mind when you think of nutrition?" are given below.

*"Just to fill your stomach, but when it comes to the weekend, I think of enjoyable foods" (P1)*

*"Diet is coming. It comes in combinations of protein, carbohydrates, fats. For me, eating means eating meat. But when it comes to nutrition, this is diet" (P3)*

*"Foods that I need to eat to be vigorous myself. Necessary nutrients for health are coming, not for filling the stomach" (P10)*

*"Health, consuming what we need, is a tool that allows me to survive" (P15)*

*“It comes to quench the feeling of hunger. If I'm hungry, I'm limited. My limitation is gone and my stomach is full.” (P18)*

**Table 2. Distribution of Demographic Characteristics and Nutritional Characteristics of the Participants**

		n	%
<b>Diagnosed Disease</b>	Yes	20	80.0
	No	5	20.0
<b>Disease Type</b>	Cardiovascular diseases	9	45.0
	Digestive system diseases	4	20.0
	Bone-Joint diseases	1	5.0
	Diabetes mellitus	2	40.0
	Other diseases (Neurological, chest disease, etc.)	4	20.0
<b>Drug Use</b>	Yes	15	60.0
	No	10	40.0
<b>Types of Drugs Used</b>	Antidepressant	1	6.7
	Diabetes mellitus medications	2	13.3
	Drugs for hypertension	3	20.0
	Medicines for high cholesterol	4	26.7
	Medicines for heart diseases	5	33.3
<b>Nutritional Supplement Use</b>	Yes	7	28.0
	No	18	72.0
<b>Working Status</b>	Working	5	20.0
	Not working	20	80.0
<b>Smoking</b>	Yes	9	36.0
	No	16	64.0
<b>Alcohol Use</b>	Yes	2	8.0
	No	23	92.0
<b>Number Of Main Meals Per Day</b>	2 main meals	19	76.0
	3 main meals	6	24.0
<b>Number of Snacks Per Day</b>	1 snack	1	4.0
	2 snacks	11	44.0
	3 snacks	12	48.0
	7 snacks	1	4.0
<b>Meal Skipping</b>	Horses	18	72.0
	Doesn't jump	7	28.0
<b>Often Skipped Meal</b>	Breakfast	4	16.0
	Noon	19	76.0
	Evening	2	8.0
<b>Daily Water Consumption Amount</b>	6-10 glasses	10	40.0
	More than 10 glasses	15	60.0
<b>Night Sleep Time</b>	Between 4-6 hours	8	32.0
	Between 7-9 hours	17	68.0

Questioning individuals' nutritional habits and attitudes towards foods; The statements of the participants regarding the question “How do you evaluate your attitude and behavior towards food?” are given below:

*“I think it is unbalanced, sometimes I eat 2-3 slices of baklava and sometimes I don't want to eat it at all.”(P2)*

*“I don't feel like eating the food right away, I don't want to eat what comes to my mind right away. Actually, I eat when I'm hungry, I don't when I see it.”(P3)*

*“There is an addiction, I want to eat all the time. I am endlessly addicted. The world is built on sustenance, and I am grateful, there must always be food.” (P8)*

*“Too bad, I eat too much. I can't resist acidic drinks and chocolate”(P15)*

*“I used to think of a meal without bread, but not anymore. I can say no to foods”(P16)*

*“I can never resist bread. When I see the food, I can't stop eating it” (P17)*

*“When something is cooked, I eat it right away, I can't resist when I feel like it.”(P20)*

*“Sometimes I can eat excessive amounts of food in a very short time by experiencing binge eating attacks.”(P25)*

Questioning eating habits and preferences; The statements of the participants regarding the question “How much do you think the environment you live in affects your nutrition?” are given below:

*“Depending on the place, yes, it depends on the place. If I want, I eat, if I don't, I don't.”(P9)*

*“The type of nutrition affects a lot in terms of time and amount. When I lived in my hometown, I used to eat more oven dishes. Here, there are more pastries. (P11)*

*“Because they love pastry so much, they can affect me negatively. I do but I don't eat.”(P17)*

*“You have a lot of families. Since I am a woman, I do everything and it is expected of me, I cook and eat.”(P20)*

Questioning eating habits and preferences; The statements of the participants regarding the questions “How much do you think culture has an impact on your nutrition?”, “How committed are you to your own nutrition culture?” are given below:

*“I keep a perfect order, there is a guest, something happens. But I have to eat.” (P3)*

*“I am attached to my own eating culture. Weight is in our structure, everyone in the house eats a lot.”(P5)*

*“Isn't it, family culture, my sister loved to eat. When they fight, he apologizes with food. Bükme\* is famous in Safranbolu, we often eat it. If I lived in Gaziantep\*\*, I would eat more meat.”(P12)*

*“Of course there is. These places are very fond of pastries and there are such foods everywhere.”(P22)*

*“If I lived in the East, I would eat meat all the time. I used to eat olive oil in the Aegean. I eat pastries all the time in Karabuk.”(P24) (Table 3).*

\* A traditional type of pastry in Turkey, \*\*A city in Turkey

Questioning Faith, Media Influence; The statements of the participants regarding the question “How much are you influenced by what you hear about food and nutrition from mass media (television, radio, internet)?” are given below:

*“I am impressed; in other words, when I am very hungry in Ramadan, I am affected. When I go to the market when I am hungry, I buy everything, it is enough for me to see.”(P5)*

“I even come to the level of shutting down social media, especially from Instagram. It is at a level that will take over me.”(P7)

“I used to be impressed, but not anymore. Because instead of seeing a lot, I go to places I know and eat.”(P13)

“It definitely affects a lot, I eat what I see that day. For example, if I saw a kebab advertisement, I would definitely eat it that day.”(P19)

**Table 3. Distribution of Individuals' Nutritional Habits and Attitudes to Foods**

FOOD		Frequency(f)
What comes to mind when you think of nutrition?	To fill one's stomach	9
	Diet/Healthy eating	10
	Happiness/Enjoyment	6
How would you evaluate your attitude and behavior towards foods?	Food addiction/Emotional eating	18
	Balanced/Healthy/Measured	7
<b>EATING HABITS AND PREFERENCES</b>		
How many meals a day do you prefer to eat?	2 meals	15
	3 meals	3
	Irregular	7
Do you skip meals, if so, how often do you skip meals and which meal do you skip the most?	Afternoon	18
	Breakfast	3
	I can't skip meals	4
Do you consume food from outside, what do you usually prefer to eat?	I do not consume outside	5
	Fast Food/Kebab/Pita/Doner	2
	Sweet	13
	Home cooking	5
To what extent do you think the environment you live in has an impact on your diet?	Does not affect	7
	It affects a lot	13
	I have the willpower though	3
	I do not know	2
To what extent do you think culture has an impact on your diet? How committed are you to your own nutrition culture?	Quite effective	18
	Not effective	7
<b>ATTITUDE AGAINST FOOD</b>		
What does food evoke in you (what do you compare it to other than food)	Doesn't make any sense	21
	I liken some foods (Walnut: Brain/Peach:Happiness/Plum:Gut)	4
How would you rate your knowledge of nutritional terms?	Very good	8
	Sufficient	10
	Bad	7
How important is gaining or losing weight to your life?	Very important/ Affects my quality of life-health	25
What changes do you think will happen in your life when you lose weight?	I feel healthier/happy/confident	25

“Is there ever been a situation where you were prejudiced against any food? How would you explain this situation?”, the generalization of the answers of the participants is given below:

*“Broad beans, celery, broccoli and cauliflower, mushrooms, liver, okra, potatoes, broad beans, liver, leeks, parsley, artichokes, flour, chocolate, sugar, sweets with syrup, legumes, packaged products in the market, chips, dairy products, raw tomatoes, dried beans, meat, eggs” (All participants)*

“Do you think your past dietary experiences have had an impact on your current habits?” The statements of the participants regarding the question are given below:

*“Of course, it got more organized, I don't get up at night and eat anymore. I take snacks with me.” (P2)*

*“Yes, I think, for example, I still love pastries. I can't drink a lot of water. I skip meals, this has become my habit.” (P8)*

*“It affects, but habits have changed and are changing with you.” (P11)*

*“It does not affect. My mother used to follow me before I got married. I always used to eat protein, but after I got married, I was turned upside down.” (P15)*

*“My childhood habits continue. It is like opening the door of the cupboard and eating.” (P16)*

*“I haven't had a habit for 4 years. I lost my son, everything changed.” (P18)*

*“I was always the same as a child, as an adult, and now.” (P25)*

“How do the foods you cannot consume due to any dietary restrictions affect you?” The statements of the participants regarding the question are given below:

*“I eat more when I know I shouldn't eat.” (P5)*

*“Prohibitions do not appeal to me, so they do not affect me negatively.” (P7)*

*“I feel better about eating. Since I eat foods with a low glycemic index and limit the options completely, exceeding the ban feels like breaking a rule.” (P8)*

*“Even though I get depressed because I don't eat, I am happy that I lose weight when I don't eat prohibited foods.” (P12)*

*“Negative effects, but I like this discipline. Not without discipline.” (P14)*

*“I get angry, but I can't diet much anyway. The word diet sounds repulsive.” (P19)*

*“You do not restrict. It's okay if I know I can eat with portion control. But if I know that I will not eat at all, it enters my dreams and I want to eat more.” (P24)*

*“I don't think of it as a restriction, but as a duty.” (P25)*

Questioning the effect of emotional management; The statements of the participants regarding the question “How do you feel when you consume a food that you should not consume?” are given below:

*“I don't feel well because when I eat, I have stomach bloating and I feel uncomfortable.” (P9)*

*“I struggle until I throw up. My stomach is disturbed because I cannot digest it.” (P19)*

“Can you describe your mood when you eat?” The statements of the participants regarding the question are given below:

*“If I overeat, I don't feel full, I don't enjoy it. Afterwards, I feel sadness and regret.” (P13)*



*"Sometimes I am very happy, sometimes I am very unhappy. When I eat too much, I throw up intentionally. I eat and vomit like a binge."(P18)*

*"I am happy, but I don't attach that much meaning to food anymore."(P21)*

*"I enjoy eating a lot, but after the meal is over, it is not enjoyable, I regret it."(P22)*

*"I'm just so happy when I eat chocolate, that's all."(P23)*

Questioning the effect of social support; "How is your family's approach to your healthy eating?", "Do you get help from your family members in reaching and preparing food?", "How is your friends' approach to your healthy eating?", "Do you get help from your friends in reaching and preparing food?" The statements of the participants regarding the question are given below:

*"They do not support me. They don't like weakness. For example, when I leave the house, they always bring something with me."(P1)*

*"My family is supportive. With this issue, my family members fully support me and even my wife does everything."(P3)*

*"They never support, I buy everything myself. He even makes more pastries or something while I'm on a diet. My wife is very active so she wants it and gets it done."(P6)*

*"I live alone, but my father supports me. They only buy food when they feel guilty towards me."(P9)*

*"They support but eat harmful things. Most of the time, I eat it when I see that they say pita and outside products." (P18)*

*"I don't go out to dinner with my friends a lot, so they don't know much about my eating pattern."(P19)*

*"They are usually a stumbling block. They say that you are so beautiful, you are so beautiful, you can't do it."(P25)*

How do you evaluate your knowledge of nutritional terms?", "How important is gaining or losing weight in your life?", "What changes do you think will happen in your life when you lose weight?" The statements of the participants regarding the question are given below:

*"When I gain weight, I don't think in terms of beauty, but in terms of health. I feel like a very old woman. Sometimes it feels like I can't move she, she hits my waist as I gain weight. I know that as I get weaker, I will move more easily"(P2)*

*"I know that I will feel better when I lose weight, and I feel better when I walk."(P5)*

*"It affects my quality of life a lot. I can't hold my mouth. I was going to have sleeve gastrectomy, I didn't, first of all I came to a dietitian to learn about healthy eating." (P12)*

*"Very important. I got married at a young age. I was always overweight, I want to live my youth that I couldn't live by losing weight."(P18)*

*"It affects my health and my daily life. Bending down, working on the floor, taking a bath, tying shoes becomes easier when I lose weight."(P23)*

**Table 4. Distribution of the Effects of Various Factors on Food Consumption of Individuals**

<b>FAITH, MEDIA EFFECT</b>		<b>Frequency(f)</b>
To what extent are you influenced by what you hear from mass media (television, radio, internet) about food and nutrition?	I am very impressed	9
	I'm impressed	4
	I'm not too impressed	12
Have you ever been in a situation where you were prejudiced against any food? How would you explain this situation?	I have no prejudice	9
	I do not eat packaged products	2
	I don't eat some foods because I don't like them	14
Do you think your past nutritional experiences have an impact on your current habits?	Very efficient	3
	Effective	10
	No effect	12
<b>ILLNESS</b>		
Are there any foods/foods that you cannot consume due to your illness?	Yes (salty-sugary-fried)	6
	No	19
How do the foods that you cannot consume due to any dietary restriction affect you?	I want to eat more	6
	I feel bad	6
	I feel better	8
	I am not impressed	5
<b>EMOTIONAL MANAGEMENT</b>		
How do you feel when you consume a food that you should not consume?	I feel bad/guilt/regret	24
	I am happy	1
Can you describe your mood when you eat?	Very happy/Relaxed	22
	First happy then regret	3
<b>SOCIAL SUPPORT</b>		
What is your family's approach to healthy eating? Do you get help from family members in reaching and preparing food?	My family supports me	16
	They do not interfere, I decide myself	5
	They never support	4
What is your family's approach to healthy eating? Do you get help from family members in reaching and preparing food?	My friends support me	6
	My friends are messing with my diet	4
	Not interested/I have no friends	15
<b>ECONOMIC FACTORS</b>		
Is the economic factor important in order to provide a diet? Why?	Very important/healthy products are expensive	13
	It does not matter	12
Do you have the economic comfort for healthy eating?	Yes	14
	Partially	3
	No	8

#### 4. DISCUSSION

Nutritional preferences in the early stages of life affect the health status of individuals in later years, as well as physiological, psychological, and social changes in the aging process (21). Women who are active in gaining nutritional habits in society, determining the number and content of daily meals, and obtaining, preparing, and presenting foods play an active role in protecting and maintaining the health of family members. Based on these data, our study; is in women aged 65 and

over; It is a qualitative study on the evaluation of healthy nutrition practices and nutritional behaviors and food perspectives of the elderly. Our study included 25 female participants with a mean age of  $68.0 \pm 1.2$ , slightly overweight and obese ( $BMI > 25.0 \text{ kg/m}^2$ ).

Nutrition is a changeable factor that affects the formation of chronic diseases, the healing process, and the quality of life of the individual. It is estimated that up to 90% of older adults eat breakfast every day and that breakfast meets 20.0% of their daily calorie intake (20,22). In the study by Kaya et al., in which the nutritional habits of women over the age of eighty without chronic disease were evaluated qualitatively, it was observed that the majority of the participants ate three meals and two snacks and regularly consumed fruit and dairy products (23). In our study, it was determined that the majority of women aged 65 and over do not have a diagnosed disease, they usually eat two main and three snacks, they always have breakfast in the morning, and the skipped meal time is usually lunch.

Family support and social support seem to be an important factors in initiating and maintaining health-promoting behaviors. In studies with older adults at different times in China, Belgium, and the USA; It has been observed that being supported by family members and the social environment positively affects health-promoting behaviors (24,25,26). In our study, the participants generally mentioned that the environment, culture, family, and friends they live in have negative effects on their eating habits and experiences. For this reason, family support and social support can be considered a factor that should be taken into account in studies of improving the health of elderly individuals.

In studies on health and weight control, women with abdominal obesity think that emotional well-being should be given more importance as a factor affecting health and behavior (23). Timmermans et al.; found that mental well-being should be addressed before lifestyle changes in women with childhood, adulthood, and old age obesity (34). Instead of weight loss in weight control studies, obese women; tend towards studies that give priority to health and psychological well-being (26,27). In our study; The desire to consider health and the social environment shows that the importance of well-being is not limited to weight loss, but should be considered in general research on obesity and health for older women.

Lack of knowledge is often described as a barrier to behavior change. Murray-Davis et al; found that a lack of knowledge is a significant problem, especially for obese and sick women (31). Our study stated that women need more information for behavior change. In addition, women prefer personalized and flexible interventions in weight control, which is consistent with previous research (27,28,32). Plotnikoff et al. reported that older women are interested in participating in weight loss programs designed specifically for them (33). In our study, too; It was concluded that the individual nutrition therapy applied to women who applied to a health center and supported by a dietician is an effective application and meets the expectations of the participants.

Our study provides new and pragmatic data on the attitudes and preferences of older women toward obesity-focused study design. Unlike previous research, the focus is on general research on women's health and not just on weight loss trials. The integration of qualitative and quantitative data in this study supports the translation of findings to the target population. The approaches used in this study are planned to be pioneers of other studies. Our study also has some limitations. All of the women in our study were over the age of 65 and applied to a dietitian. Future trials may be conducted to investigate whether these factors differ in more heterogeneous populations, including younger women. Future studies would benefit from adding qualitative studies to provide more insight into what works in clinical trials of obesity interventions or perception studies.

## 5. CONCLUSION

The wider impact of study design on women in obesity research needs to be considered. Our study compared to previous studies; suggests that while also accepting other health-related factors, such as mental and physical function, it is recommended to also address weight perception when done in a non-stigmatizing way. Future studies require more comprehensive studies on the nutritional habits of elderly women who do not have chronic diseases and are independent in their daily living activities. Our work; reflecting the nutrients that are important in healthy aging to the present day, sheds light on new studies to be carried out to increase social awareness.

### **Ethical Declarations**

The study carried out with the permission of Karabuk University, Non-Interventional Ethics Committee (Date: 07.11.2022, Decision No: 1158).

**Informed consent:** All patients signed the free and informed consent form.

**Conflict of Interest Statement:** The authors have no conflicts of interest to declare.

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