

# Investigation of the Relationship Between Nutritional Habits and Quality of Life in Adult Humans

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## ABSTRACT

The aim of this study was to examine the relationship between dietary habits and quality of life among adult individuals. Data were collected using a survey method. A descriptive information form was used to gather demographic characteristics such as age, gender, residential area, physical activity duration, socio-economic status, smoking and alcohol consumption, and educational background. The Healthy Eating Attitude Scale (HEAS) developed by Tekkurşun and Cicioğlu (2019) and the short form of the International Physical Activity Questionnaire (IPAQ) were utilized to assess dietary habits. The data were analyzed using SPSS IBM 25.0 software. Descriptive statistics and correlation tests were performed for the analysis. A total of 550 participants (242 males and 308 females) were included in the study. The gender distribution was 44.0% male and 56.0% female. The results indicated a significant correlation between dietary habits and quality of life. Dietary habits of adult individuals significantly affect their quality of life, and enhancing healthy eating attitudes may positively influence quality of life. It is recommended to raise awareness about dietary habits among individuals.

**Keywords:** Dietary habits, quality of life, adults, physical activity

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Journal home page: www.e-jespar.com

Academic Editor: Dr. Mehmet Gülü

<https://doi.org/10.5281/zenodo.14566743>

## ARTICLE HISTORY

Received: 15 November 2024

Accepted: 26 December 2024

Published: 29 December 2024



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## INTRODUCTION

Nutrition is a process that ensures individuals receive all the essential nutrients essential for the body in adequate and balanced amounts, taking into account factors such as age, gender, and physiological condition (Güldal et al., 2023; Niroula, 2024). This process directly affects the quality of life, encompassing an individual's ability to meet all fundamental needs, experience life satisfaction, demonstrate adequate social behaviors, succeed in interpersonal relationships, maintain self-esteem, and draw from past knowledge and experiences (Costanza et al., 2007; Harris & Orth, 2020). Consuming a sufficient amount of nutrition consciously and at the right times is a critical factor in enhancing quality of life and maintaining health (Cui et al., 2021; Latham, 1997). Therefore, individuals need to adopt appropriate dietary habits to sustain a healthy lifestyle (Di Renzo et al., 2020).

Dietary habits and the health problems they cause significantly affect the quality of life in adult individuals, both directly and indirectly (Şenel et al., 2023; Emlek et al., 2024). While advances in science and technology as well as economic development have led to a decrease in health problems related to malnutrition, issues related to overeating and excessive energy intake have emerged (Kaale et al., 2023; Norman et al., 2021). According to the World Health Organization (WHO), the relationship between dietary habits and quality of life has become a significant area of research (Govindaraju, 2018; Poli et al., 2019). Dietary habits directly influence individuals' general health and are one of the determining factors of quality of life (Orszulak et al., 2022). The WHO emphasizes that healthy eating habits play a critical role in preventing chronic diseases such as cardiovascular diseases, type 2 diabetes, obesity, and certain types of cancer (La Sala and Pontiroli, 2020; Waddell and Orfila, 2023). Dietary habits are important factors in the development of chronic diseases (Gioia et al., 2020). More precisely, lifestyle factors such as poor nutrition, physical inactivity, smoking, and alcohol consumption lead to health issues such as cardiovascular diseases, obesity, and diabetes (Mozaffarian et al., 2008; Gülü et al., 2022). Studies have shown that individuals who eat a balanced and healthy diet tend to exhibit higher levels of quality of life (Bize et al., 2007). Specifically, these individuals experience lower incidences of mental health issues such as depression and anxiety (Ljungberg et al., 2020). Healthy eating habits not only support physical health by supplying the essential nutrients but also have a favourable impact on mental health (Briguglio et al., 2020). This situation positively affects an individual's participation in daily activities, relationships, and overall life experiences, thereby enhancing quality of life (An et al., 2020; Schwanen & Wang, 2014). Thus, adopting healthy dietary habits is a crucial step toward reducing mental health issues and improving quality of life (Di Santo et al., 2020).

In conclusion, adopting and maintaining healthy eating habits not only preserves individuals'

physical and mental health but also enhances their quality of life. Therefore, addressing or minimizing existing nutritional issues to improve quality of life is of great importance in adopting lifestyles and thus preventing chronic diseases that may develop due to undernutrition and overnutrition. The aim of this study is to examine the relationship between dietary habits and quality of life in adults.

## **MATERIALS AND METHODS**

### **Research Model**

This study utilized a cross-sectional research design to investigate the relationship between dietary habits and quality of life among adult individuals. The cross-sectional model is particularly effective for capturing a snapshot of participants' dietary behaviors and their corresponding quality of life indicators at a specific point in time. This design allows for the identification of patterns and correlations without implying causality, making it suitable for exploratory research in this field.

### **Research Group**

The research group comprised 550 adult participants, including 242 males (44.0%) and 308 females (56.0%). Participants were recruited through a convenience sampling method from various urban and rural communities to ensure a diverse representation in terms of age, socio-economic status, and geographical location. According to the inclusion criteria, participants were required to be at least 18 years old and be willing to participate in the study. The participants were informed about the study's purpose and provided consent prior to the data collection. The demographic characteristics of the participants were carefully documented to facilitate detailed analysis.

### **Data Collection**

Data were collected using a structured questionnaire that consisted of three main sections. The first section included a descriptive information form to gather demographic details such as age, gender, residential area, socio-economic status, smoking and alcohol consumption, and educational background. The second section employed the Healthy Eating Attitude Scale (HEAS) developed by Tekkurşun and Cicioğlu (2019) to assess participants' dietary habits, focusing on their attitudes toward healthy eating practices. The third section utilized the short form of the International Physical Activity Questionnaire (IPAQ) to evaluate physical activity levels. Data collection was conducted in a controlled environment, where participants completed the questionnaire independently, ensuring confidentiality and anonymity. The questionnaires were administered by trained research assistants who were available to clarify any doubts during the process.

### **Statistical Analysis**

Data analysis was performed using SPSS IBM 25.0 software. Descriptive statistics were calculated to summarize the demographic characteristics of the participants, including means, standard deviations, and frequency distributions. Correlation analyses were conducted to examine the relationships between dietary habits, as measured by the HEAS, and quality of life indicators. The Pearson correlation coefficient was used to assess the strength and direction of the relationships. A significance level of  $p < 0.05$  was established for all statistical tests, indicating that any p-value below this threshold would be considered statistically significant. Additionally, assumptions for the statistical tests were checked to ensure the validity of the results.

This comprehensive approach to data collection and analysis aimed to provide a clear understanding of how dietary habits influence quality of life among adults, laying the groundwork for future research and potential interventions in public health.

## Results

**Table 1** Frequency and percentage distributions of the participants according to their answers to the questions in the demographic information form

Variables	Groups	N	%
<i>Total number of participants</i>		550	100
Gender	Male	242	44.0
	Woman	308	56.0
Place of Life	Kent City	530	96.4
	Rural	20	3.6
Cigarette Use	Yes	177	32.2
	No.	373	67.8
Alcohol Use	Yes	121	22.0
	No.	429	78.0
Chronic Illness	Yes	110	20.0
	No.	440	80.0
Weekly Physical Activity Status	30 min	106	19.3
	45 min	78	14.2
	60 min	132	24.0
	60 minutes and over	197	35.8

Table 1 presents the distribution of participants' responses to the demographic information form. The total number of participants is 550, with 56% females and 44% males. In terms of residence, a significant majority, 96.4%, live in urban areas, while only 3.6% reside in rural areas. Regarding smoking habits, 32.2% of participants are smokers, whereas 67.8% do not smoke. Alcohol consumption is reported at 22.0%, with 78.0% abstaining from alcohol. The prevalence of chronic illnesses is relatively low, with 20.0% of participants reporting such condit-

ions and 80.0% indicating they are healthy. When it comes to weekly physical activity, 35.8% engage in 60 minutes or more, while 19.3% participate in 30 minutes and 14.2% in 45 minutes of activity. Overall, the participant profile indicates a tendency toward healthy lifestyle choices, predominantly among individuals living in urban settings.

**Table 2.** Correlation Table of Participants' Dietary Habits and Quality of Life

VARIABLES	Age	Weight	IAN	NOE	PN	M	GHS	PH	P	SR	E
Age	1										
Weight	,221**	1									
IAN	-0,059	-0,013	1								
NOE	-,283**	0,068	-0,073	1							
PN	,110*	-0,023	,382**	-,203**	1						
M	,240**	-0,047	,214**	-,378**	,440**	1					
GHS	,151**	-,160**	,277**	-,232**	,409**	,337**	1				
PH	,123**	-0,066	,258**	-,212**	,387**	,307**	,498**	1			
P	,125**	-0,028	,284**	-,239**	,397**	,353**	,632**	,717**	1		
SR	0,005	-0,018	,206**	-,100*	,312**	,263**	,456**	,461**	,568**	1	
E	,111**	-0,032	,293**	-,201**	,374**	,311**	,503**	,709**	,685**	,525**	1

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

*IAN;Information About Nutrition, NOE;Nutrition-Oriented Emotion,PN;Positive Nutrition, M; Malnutrition, GHS;General health status, PH;Physical health, P;Psychological, SR;Social relations, E;Environment*

The correlation table presents the relationships between various health-related variables. Age shows a significant positive correlation with weight ( $r = 0.221$ ,  $p < 0.01$ ), indicating that older participants tend to weigh more. Conversely, age has a negative correlation with the BYD ( $r = -0.283$ ,  $p < 0.01$ ), suggesting that older individuals may report lower levels of well-being in this domain. Weight does not show significant correlations with other health variables, except for a minor negative relationship with psychological health ( $r = -0.028$ ). Notably, the BHB is positively correlated with physical health ( $r = 0.258$ ,  $p < 0.01$ ) and negatively with social relationships ( $r = -0.100$ ,  $p < 0.05$ ). This indicates that while social relationships may deteriorate as one's BHB score rises, physical health may improve. The KB variable demonstrates several significant correlations; it has a strong positive relationship with general health ( $r = 0.409$ ,  $p < 0.01$ ) and physical health ( $r = 0.387$ ,  $p < 0.01$ ), suggesting that higher KB scores are associated with better overall health. Similarly, psychological health shows a robust correlation with general health ( $r = 0.632$ ,  $p < 0.01$ ) and physical health ( $r = 0.717$ ,  $p < 0.01$ ), indicating that improved psychological well-being is linked to better physical and overall health. The environment variable is positively correlated with general health ( $r = 0.503$ ,  $p < 0.01$ ) and psychological health ( $r = 0.685$ ,  $p < 0.01$ ), which highlights the importance of a supportive environment for enhancing health outcomes. Overall, these correlations underscore the interconnectedness of various health dimensions, with particular emphasis on the influence of psychological and environmental factors on overall well-being.

**Table 3.** Correlation Table of Participants' Dietary Habits and Quality of Life (Men)

VARIABLES	Age	Weight	IAN	NOE	PN	M	GHS	PH	P	SR	E
Age	1										
Weight	,338**	1									
IAN	0,037	,141*	1								
NOE	-,286**	0,019	-0,097	1							
PN	0,124	0,111	,370**	-,310**	1						
M	,231**	0,032	,271**	-,382**	,453**	1					
GHS	0,006	-,182**	,299**	-,270**	,454**	,284**	1				
PH	0,019	-0,036	,216**	-,209**	,397**	,199**	,406**	1			
P	0,072	-0,072	,230**	-,285**	,417**	,318**	,617**	,659**	1		
SR	-0,099	-0,094	,135*	-0,114	,232**	,194**	,390**	,362**	,495**	1	
E	0,120	-0,020	,238**	-,243**	,393**	,310**	,513**	,641**	,672**	,443**	1

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

*IAN; Information About Nutrition, NOE; Nutrition-Oriented Emotion, PN; Positive Nutrition, M; Malnutrition, GHS; General health status, PH; Physical health, P; Psychological, SR; Social relations, E; Environment*

The correlation table presents the relationships between dietary habits and quality of life among male participants. There is a positive correlation between age and weight ( $r = 0.338$ ,  $p < 0.01$ ), indicating that older individuals tend to have higher weights. A weak positive correlation exists between age and BHB ( $r = 0.037$ ), while a negative correlation is observed between age and BHD ( $r = -0.286$ ,  $p < 0.01$ ). This suggests that as age increases, BHD scores tend to decrease. Several significant relationships are also noted between OB and other variables. For instance, there is a strong positive correlation between OB and BHB ( $r = 0.370$ ,  $p < 0.01$ ), indicating that individuals with healthier dietary habits may have higher OB scores. KB shows positive correlations with general health ( $r = 0.454$ ,  $p < 0.01$ ) and physical health ( $r = 0.397$ ,  $p < 0.01$ ), suggesting that good dietary habits positively influence both overall and physical health. Psychological health has a strong correlation with general health ( $r = 0.617$ ,  $p < 0.01$ ), indicating that better psychological well-being may enhance overall health. Additionally, there is a positive relationship between social relationships and the environment ( $r = 0.443$ ,  $p < 0.01$ ), thus suggesting that social support and environmental factors can impact quality of life. These correlations highlight the significance of the relationships among dietary habits, psychological health, and quality of life among male participants. Healthy eating and a supportive social environment appear to play a crucial role in improving quality

of life.

**Table 4.** Correlation Table of Participants' Dietary Habits and Quality of Life (Women)

\*. Correlation is significant at the 0.05 level (2-tailed). \*\*. Correlation is significant at the 0.01 level (2-tailed).

VARIABLES	Age	Weight	IAN	NOE	PN	M	GHS	PH	P	SR	E
Age	1										
Weight	0,103	1									
IAN	-0,093	0,076	1								
NOE	-,287**	,132*	-0,055	1							
PN	,127*	0,019	,368**	-,118*	1						
M	,264**	-0,052	,154**	-,376**	,422**	1					
GHS	,258**	-,130*	,249**	-,204**	,367**	,376**	1				
PH	,193**	-0,053	,280**	-,216**	,377**	,382**	,559**	1			
P	,159**	-0,019	,338**	-,204**	,389**	,384**	,647**	,759**	1		
SR	0,067	0,021	,267**	-0,089	,378**	,317**	,506**	,526**	,620**	1	
E	,113*	-0,011	,334**	-,168**	,358**	,310**	,495**	,755**	,696**	,584**	1

IAN;Information About Nutrition, NOE;Nutrition-Oriented Emotion,PN;Positive Nutrition, M; Malnutrition, GHS;General health status, PH;Physical health, P;Psychological, SR;Social relations, E;Environment

The correlation table for female participants illustrates the relationships between various health-related variables. Age shows a weak positive correlation with weight ( $r = 0.103$ ) and a negative correlation with BHD ( $r = -0.287$ ,  $p < 0.01$ ), suggesting that older women may report lower well-being in this area. BHB has a small negative correlation with age ( $r = -0.093$ ) and a weak positive correlation with weight ( $r = 0.076$ ). OB is positively correlated with KB ( $r = 0.422$ ,  $p < 0.01$ ) and has significant relationships with other variables, including general health ( $r = 0.367$ ,  $p < 0.01$ ) and physical health ( $r = 0.377$ ,  $p < 0.01$ ). This indicates that better dietary habits may contribute to improved overall and physical health. KB demonstrates strong positive correlations with general health ( $r = 0.376$ ,  $p < 0.01$ ), physical health ( $r = 0.382$ ,  $p < 0.01$ ), and psychological health ( $r = 0.384$ ,  $p < 0.01$ ). This suggests that healthier eating patterns are associated with better psychological well-being. Psychological health is significantly correlated with general health ( $r = 0.647$ ,  $p < 0.01$ ) and physical

health ( $r = 0.759$ ,  $p < 0.01$ ), indicating that improvements in psychological well-being can positively affect overall health outcomes. Social relationships also show a significant positive correlation with physical health ( $r = 0.526$ ,  $p < 0.01$ ) and psychological health ( $r = 0.620$ ,  $p < 0.01$ ), highlighting the importance of social support. The environment variable has a positive correlation with psychological health ( $r = 0.696$ ,  $p < 0.01$ ) and physical health ( $r = 0.755$ ,  $p < 0.01$ ), indicating that a supportive environment enhances well-being.

In summary, these correlations emphasize the importance of dietary habits, psychological health, and social support in influencing the quality of life among female participants.

## DISCUSSION

This study examines the relationships between participants' dietary habits and quality of life, revealing significant findings. Strong correlations were observed between healthy eating habits and general health, physical health, and psychological well-being. The critical role of healthy eating in enhancing quality of life has been frequently emphasized in the literature (Haraldstad et al., 2019; Clinton et al., 2020). The positive correlation between age and weight indicates that older individuals tend to have higher body weights (Suryadinata et al., 2020). This trend is associated with decreased physical activity levels and slower metabolism as age increases (Bowden Davies et al., 2019). Particularly in older women, this situation may relate to the increase in psychological and physical problems with age, potentially influenced by societal gender roles (Carmel, 2019). Women often rely more heavily on social support systems, making the impact on their quality of life more pronounced (Neneh, 2022). Improving the dietary habits of older women may positively influence both their physical and psychological health.

The positive correlation between body mass index (BMI) and dietary habits supports the role of healthy eating in enhancing quality of life (Baceviciene et al., 2020). This suggests that adopting a healthy and balanced diet is a critical factor in improving overall health (Balhareth et al., 2019). Healthy eating can positively affect not only physical health but also mental health, contributing to the prevention of psychological disorders such as depression and anxiety (Briguglio et al., 2020).

The strong correlation between psychological health and general health indicates that psychological well-being has a positive effect on physical health. In female participants, the relationship between psychological health and social relationships emphasizes the effect of so-

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Journal home page: [www.e-jespar.com](http://www.e-jespar.com)

Academic Editor: Dr. Mehmet Güllü

<https://doi.org/10.5281/zenodo.14566743>

### ARTICLE HISTORY

Received: 15 November 2024

Accepted: 26 December 2024

Published: 29 December 2024



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cial support on psychological well-being (Morales-Rodríguez et al., 2020). Social support enhances individuals' ability to cope with stress, increasing life satisfaction and improving overall health (Kong et al., 2019). Supportive social relationships play an important role in coping with stressful situations, directly influencing individuals' quality of life (McFadden et al., 2021).

Environmental factors also significantly impact health. The findings indicate that a supportive environment positively affects psychological and physical health (Rasool et al., 2021). A supportive environment may strengthen individuals' social connections and improve their general health. In particular, a healthy environment and access to nutritious food sources can assist individuals in adopting healthy eating habits (Hargreaves et al., 2021).

Research emphasizes the direct impact of a healthy diet on individuals' physical health. In this context, it is crucial to implement community-level health education programs and awareness campaigns (Belizan et al., 2019). Improving dietary habits can positively affect individuals' overall health, thereby enhancing community health. Promoting healthy lifestyles among both young and elderly individuals will contribute to an increase in quality of life (Wu et al., 2019).

Motivating individuals to adopt healthy eating habits further underscores the role of health professionals. Health professionals can significantly contribute to improving community health by providing nutrition education and promoting healthy lifestyles (Stanulewicz et al., 2019). Additionally, addressing inequalities in food access through the development of social policies will provide a broader perspective on community health (Pollard & Booth, 2019). Economic status is also a crucial factor affecting dietary habits. Low-income individuals often face challenges accessing healthy foods (Ziso et al., 2022). This situation can negatively impact their dietary habits, thereby diminishing their quality of life. Therefore, health policies must extend beyond health education to address economic inequalities (Patel et al., 2020). Moreover, combining nutritional education with supportive economic measures can empower individuals to make healthier choices, ultimately enhancing their well-being and reducing healthcare burdens. Through a comprehensive approach that combines health education, social support, and economic reforms, societies can make significant strides toward fostering sustainable, healthier lifestyles for diverse populations.

## Conclusions

This study highlights the significant relationship between dietary habits and quality of life, demonstrating that healthy eating plays a crucial role in enhancing overall well-being. The findings indicate that improved dietary practices positively influence not only physical health but also psychological well-being, particularly among older adults and women. The correla-

tions observed suggest that a balanced diet is instrumental in preventing psychological disorders and fostering social connections, which in turn contribute to enhanced quality of life. Moreover, the study underscores the importance of social support and a supportive environment in promoting healthy lifestyles. Access to nutritious foods and supportive social networks can significantly impact individuals' ability to maintain healthy eating habits and, consequently, enhance their general health. The results also point to the need for comprehensive public health strategies that include health education, community programs, and policy initiatives aimed at addressing socioeconomic disparities in food access. By fostering an environment conducive to healthy eating, it is possible to improve not only individual health outcomes but also the health of communities as a whole. In conclusion, promoting healthy dietary habits, alongside psychological well-being and social support, can significantly enhance the quality of life. These findings emphasize the necessity for individuals, health professionals, and policymakers to collaborate in fostering supportive environments that encourage healthy lifestyles. Future research should further explore the intricate relationships among diet, mental health, and social factors to develop targeted interventions that address these critical aspects of health and well-being.

#### Author Contributions

Conceptualization, N.B. methodology, H.Y., B.E.; formal analysis, H.Y.; investigation, G.K.; data curation, H.Y, B.E. writing—original draft preparation, Ö.E.T. writing—review and editing, Z.B, C.A.

#### Informed Consent Statement:

The research was conducted in line with the Declaration of Helsinki.

#### Acknowledgments:

We would like to thank all participants who took part in the research.

#### Funding:

This research was not funded by any institution or organization.

#### Conflicts of Interest:

The authors declare that no conflicts interest.

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