

# The Relationship between Health Perception and Awareness of Cancer Screening in Patients Applying to Family Medicine Polyclinic of Karabük Education and Research Hospital

Karabük Eğitim ve Araştırma Hastanesi Aile Hekimliği Polikliniğine Başvuran Hastalarda Sağlık Algısı ile Kanser Taraması Farkındalığı Arasındaki İlişki

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## ABSTRACT

**Aim:** Cancer continues to be a very important disease in human life today as it was before. Appropriate cancer screening is of great importance to ensure that existing cancer patients are diagnosed early and to reduce mortality. This study aimed to assess the link between health perception and awareness of cancer screening, to investigate the factors influencing health perception levels, and to evaluate individuals' knowledge regarding cancer screening programs.

**Materials and Methods:** A survey form served as the instrument for data collection in the research. It includes 21 items along with the Health Perception Scale (HPS). The study was conducted with 320 participants. Statistical Package for the Social Sciences, version 25 (SPSS-25) statistical program was used for statistical analysis and calculations.

**Results:** The average age at the midpoint of the participants was 42 years. 60.62% of the participants stated that they knew that cancer screening was performed within the scope of national screening. While 35.63% of the participants had undergone any cancer screening in their lives, 64.38% stated that they had never undergone cancer screening. Participants who indicated knowledge of cancer screening being implemented nationally had significantly higher HRQoL scores than those who reported no such knowledge. Participants knowledgeable about the Cancer Early Diagnosis, Screening, and Education Center (CEDSE) demonstrated higher HRQoL scores at a statistically significant level, while no meaningful correlation was observed between lifetime cancer screening experience and HRQoL. The HRQoL score of those who were aware of the national cancer screenings in Turkey was statistically significantly higher than those who were not.

**Conclusion:** Awareness of national cancer screening programs and CEDSE was associated with higher health perception scores. Yet, there was no significant link between health perception and participation in cancer screening. These findings indicate that knowledge improves perception, but behavioral change relies on additional determinants.

**Keywords:** Health Perception Scale, CEDSE, Cancer

## ÖZET

**Amaç:** Kanser, geçmişte olduğu gibi günümüzde de insan hayatında çok önemli bir hastalık olmaya devam etmektedir. Mevcut kanser hastalarının erken teşhis edilmesini ve mortalitenin azaltılmasını sağlamak için uygun kanser taraması büyük önem taşımaktadır. Bu çalışma, sağlık algısı ile kanser tarama farkındalığı arasındaki ilişkiyi değerlendirmeyi, sağlık algı düzeylerini etkileyen faktörleri araştırmayı ve bireylerin kanser tarama programları hakkındaki bilgi düzeylerini değerlendirmeyi amaçlamaktadır.

**Materyal ve Metod:** Araştırmada veri toplama aracı olarak bir anket formu kullanılmıştır. Anket, Sağlık Algısı Ölçeği (SAÖ) ile birlikte 21 sorudan oluşmaktadır. Çalışma 320 katılımcı ile yürütülmüştür. İstatistiksel analiz ve hesaplamalar için Statistical Package for the Social Sciences, version 25 (SPSS-25) istatistik programı kullanılmıştır.

**Bulgular:** Katılımcıların yaş ortalaması 42'dir. Katılımcıların %60,62'si ulusal tarama kapsamında kanser taraması yapıldığını bildiklerini belirtmiştir. Katılımcıların %35,63'ü yaşamları boyunca herhangi bir kanser taramasından geçmişken, %64'i hiç kanser taraması yaptırmadığını belirtmiştir. Ülke genelinde uygulanan kanser taraması hakkında bilgi sahibi olduğunu belirten katılımcıların SAÖ puanları, bu konuda bilgi sahibi olmadığını belirtenlere göre anlamlı derecede daha yüksekti. Kanser Erken Teşhis, Tarama ve Eğitim Merkezi (KETEM) hakkında bilgi sahibi olan katılımcılar, istatistiksel olarak anlamlı düzeyde daha yüksek SAÖ puanları gösterirken, yaşam boyu kanser tarama deneyimi ile SAÖ puanı arasında anlamlı bir korelasyon gözlenmedi. Türkiye'deki ulusal kanser taramalarından haberdar olanların SAÖ puanı, haberdar olmayanlara göre istatistiksel olarak anlamlı derecede daha yüksekti.

**Sonuç:** Ulusal kanser tarama programları ve KETEM hakkında bilgi sahibi olmak, daha yüksek sağlık algısı puanlarıyla ilişkiliydi. Ancak, sağlık algısı ile kanser taramasına katılım arasında anlamlı bir bağlantı bulunamamıştır. Bu bulgular, bilginin algıyı iyileştirdiğini, ancak davranış değişikliğinin ek belirleyicilere bağlı olduğunu göstermektedir.

**Anahtar Kelimeler:** Sağlık Algısı Ölçeği, KETEM, Kanser Taraması

## INTRODUCTION

As in the past, cancer continues to play a significant role in human health today, ranking as the second most common cause of mortality worldwide, following cardiovascular conditions [1]. The World Health Organization (WHO) defines cancer as a broad category of diseases characterized by abnormal cell growth that can occur in almost any tissue or organ. These cells may surpass normal limits, invade surrounding tissues, or spread to distant organs, a process called metastasis, which is the leading cause of mortality in cancer. Other terms used for cancer include neoplasm and malignant tumor [2]. In addition to its lethality, cancer causes heavy losses in the national economy and workforce due to the disabilities it leaves and the high costs of its treatment [3]. Cancer, from the point of diagnosis through its terminal phase, profoundly affects overall equilibrium and imposes considerable stress on patients as well as their families [4]. The examination and evaluation of asymptomatic individuals with the aim of controlling diseases is defined as "screening". Health screenings are programs that are applied to healthy individuals at certain intervals with the aim of early detection of diseases and thus reducing the incidence of disease and related deaths. The main purpose of screening tests is not to diagnose a disease directly, but to ensure that if a positive finding is detected, this finding is detected early and confirmed by advanced diagnostic methods [5]. One of the most important aspects of early diagnosis of cancer, which is a very difficult disease to fight, is cancer screening. Appropriate cancer screening is of great importance to ensure that existing cancer patients are diagnosed early and to reduce mortality. In general, the recommended cancer screenings in primary health care all over the world are colorectal cancer, cervical cancer, breast cancer and lung cancer in risk groups, while the screenings that are not recommended are pancreatic cancer, ovarian cancer and testicular cancer. There is insufficient evidence on screening for bladder cancer, prostate cancer, oral cancers and skin cancer [6]. According to the national cancer screening program implemented in Turkey, cancer screening tests are performed for colorectal cancer (CRC), breast cancer and cervical cancer. Tests in this program are performed at Family Health Centers (FHC), Cancer Early Diagnosis, Screening and Education Centers (CEDSE), Healthy Life Centers (HLC) and Community Health Centers (CHC) [3]. Even with advances in diagnosis and treatment, cancer remains a key public health issue among chronic diseases. According to the understanding of social medicine, since the most common diseases that cause the most disability and the most deaths in a society are the most important health problems of the society, in order to decide the importance of cancer in terms of public health in the world and in our country, it is necessary to look at the frequency of this disease, the factors causing the disease and the number of deaths, and to examine it epidemiologically [7]. Data from the Global Cancer Observatory (GLOBOCAN) 2022, published by IARC, show that Turkey recorded 240,013 new cancer cases in 2022. Considering both sexes, lung cancer was the most frequent (17.1%), followed by breast (10.5%), colorectal (9%),

prostate (7.2%), and thyroid cancer (6.4%). Cancer-related deaths totaled 129,672, with lung cancer (29.7%) as the leading cause, followed by colorectal (9.0%) and stomach cancer (8.1%) [8].

Various conceptual models such as the health belief model and the social learning model have been developed to clarify the formation of health behaviors and how these behaviors can be changed. These models focus on attitudes, beliefs and perceptions as the main factors affecting an individual's health behaviors. [9,10]. Health perception can be defined as "a combination of personal feelings, thoughts, prejudices and expectations about one's own health" [11].

The study seeks to examine determinants of health perception through the Health Perception Scale, measure participants' knowledge regarding cancer screening programs, promote awareness during questionnaire administration, and assess the association between health perception and awareness of cancer screening.

## MATERIALS AND METHODS

This study is a cross-sectional, descriptive study conducted at the Family Medicine Outpatient Clinic of the Ministry of Health Karabük Training and Research Hospital. Between 15 June 2024 and 15 September 2024, a questionnaire was administered to 320 patients. All participants were informed about the study, and written informed consent was obtained from those who agreed to participate. The questionnaire consisted of 21 items and the Health Perception Scale. The first part (questions 1–14) collected sociodemographic data such as age, gender, and educational level, while the second part (questions 15–21) assessed participants' knowledge, attitudes, and behaviors regarding cancer screening. The Health Perception Scale was included at the end of the questionnaire.

The Health Perception Scale was developed by Diamond et al. in 2007 [10]. Turkish validity and reliability study was conducted by Hasibe Kadioğlu et al. in 2012. Comprising 15 items and four sub-factors, the Health Perception Scale employs a five-point Likert-type format, yielding total scores between 15 and 75 [9,12].

Exclusion criteria included age below 18 years, inadequate cognitive capacity to comprehend and answer the questionnaire, foreign nationality, pregnancy, or non-consent to participate in the study.

Statistical Package for the Social Sciences, version 25 (SPSS-25) statistical program was used to evaluate the findings obtained in our study. Normal distribution was evaluated by Kolmogorov Smirnov and Shapiro-Wilk tests. For non-normally distributed data, Mann Whitney U test and Kruskal Wallis test, which are the nonparametric equivalents of these tests, were used, respectively. Differences were regarded as statistically significant if the p-value was below 0.05.

Approval for the ethical conduct of this study was obtained from the Karabük University Non-Interventional Clinical Research Ethics Committee under decision number E-77192459-050.99-346924, dated 10 June 2024.

## RESULTS

The study sample had a median age of 42 years, with 50% married, 60.3% residing in the city center, 39.4% smokers, and 11.6% alcohol consumers. There was a weak negative correlation between participants' age and HRQOL score ( $p < 0.05$ ,  $r = -0.114$ ).

60.62% of the participants stated that they knew that cancer screening was performed within the scope of national screening, while 39.38% stated that they did not know.

Among the participants who stated that they knew about cancer screening, 43.3% stated that they received information from their family physicians, 15.46% from their neighbors or environment, 15.46% from other healthcare professionals, 12.89% from branch physicians, and 12.89% from the media/magazines/newspapers. 24.38% of the participants stated that they had information about CEDSE, 58.13% stated that they did not have information, and 17.5% stated that they had heard of it but did not have detailed information. Table 1 displays the findings of the analysis.

While 35.63% of the participants had undergone cancer screening, 64.38% stated that they had not undergone cancer screening. Among the participants who had undergone cancer screening, 50% stated that they had undergone PAP Smear/HPV-DNA, 47.37% mammography, 38.6% occult blood in stool, 26.32% colonoscopy-/sigmoidoscopy. 9.65% stated that they had undergone other cancer screenings.

Among participants without a history of cancer screening, 48.5% were unaware of its availability, 37.9% feared a serious diagnosis, 23.8% were apprehensive about seeing a doctor, 23.3% cited time limitations, 22.3% did not know

where to access screening, 3.5% lacked trust in medicine, 1.9% faced financial barriers, and 36.4% reported other reasons. The median value of the total scale of the Health Perception Scale was calculated as 48 and the mean total scale score was  $48.95 \pm 7.11$ .

Significant differences in HRQoL scores were observed based on marital status, education level, place of residence, occupation, smoking status, exercise habits, and nutrition. Widowed/divorced participants and village residents had lower scores, whereas individuals with higher education, health workers, non-smokers, regular exercisers, and those following healthy diets had higher scores ( $p$ -values ranging from  $< 0.05$  to  $< 0.01$ ). Table 2 displays the findings of the analysis.

No statistically significant relationship was found between the participants' status of having a chronic disease, being diagnosed with cancer, and being diagnosed with cancer in their close relatives and HRQOL score ( $p > 0.05$ ).

Participants who reported being aware that cancer screening is conducted within the scope of national programs had significantly higher HRQoL scores than those who were not aware ( $p < 0.01$ ). Similarly, individuals knowledgeable about the Cancer Early Diagnosis, Screening, and Education Center (CEDSE) demonstrated higher HRQoL scores compared to those without such knowledge ( $p < 0.01$ ). No significant correlation was observed between having undergone at least one cancer screening in life and HRQoL scores ( $p > 0.05$ ). Table 3 displays the findings of the analysis.

Individuals accurately informed about national cancer screenings demonstrated significantly higher HRQoL scores compared to those who were not ( $p < 0.01$ ). Table 4 displays the findings of the analysis.

**Table 1.** Participants' Sources of Information on Cancer Screenings and CEDSE

		N (%)
Sources of Information on Cancer Screening within the Scope of National Screening in Turkey	Family physician	84 (43.3)
	Neighbor/environment	30 (15.46)
	Other health worker	30 (15.46)
	Branch physician	25 (12.89)
	Media/magazine/newspaper	25 (12.89)
Does anyone know about CEDSE?	I have information	78 (24.38)
	No information	186 (58.13)
	I heard about it but I don't have detailed information	56 (17.5)

**Table 2.** Comparison of Sociodemographic Characteristics and HRQOL Scores of the Participants

		SLA Score		
		Median (Min.-max.)	Mean±standard deviation	p
Gender	Woman	48 (29-75)	49.25±7.32	<sup>(a)</sup> 0,425
	Male	48 (33-72)	48.56±6.85	
Marital Status	Married (1)	50 (29-72)	49.86±7.06	<sup>(b)</sup> 0,002** (1,2>3)
	Single (2)	48 (33-75)	48.92±7.65	
	Widowed/divorced (3)	46 (36-61)	46.47±5.64	
Education Level	Below high school	47 (33-61)	47.31±5.85	<sup>(a)</sup> 0,002**
	High school and above	49 (29-75)	50.2±7.73	
Place of Residence	City center (1)	49 (34-75)	50.19±7.49	<sup>(b)</sup> <0,001** (1,2>3)
	District center (2)	48 (33-60)	48.07±5.6	
	Village (3)	45 (29-61)	45.69±6.41	
Health Worker?	No.	48 (29-72)	48.5±6.86	<sup>(a)</sup> 0,010*
	Yes	51 (40-75)	52.35±8.11	
Income Status	Income less expenses (1)	49 (29-66)	48.13±6.6	<sup>(b)</sup> 0,497
	Income equal to expenditure (2)	48 (35-62)	48.29±5.84	
	Income more than expenditure (3)	48 (33-75)	49.86±7.95	
Cigarette	Yes	47 (34-69)	47.94±6.6	<sup>(a)</sup> 0,610
	No.	49 (29-75)	49.6±7.37	
Alcohol	Yes	49 (34-64)	49.3±7.02	<sup>(a)</sup> 0,610
	No.	48 (29-75)	48.9±7.14	
Does he/she exercise regularly?	Yes	51 (39-75)	51.62±7.65	<sup>(a)</sup> <0,001**
	No.	47 (29-72)	47.73±6.52	
Does he/she pay attention to a healthy diet?	Yes	50 (33-75)	50.47±6.97	<sup>(a)</sup> <0,001**
	No.	46 (29-61)	46.07±6.49	

**Table 3.** Comparison of Participants' Knowledge about Cancer Screenings and HRQOL Score

		SLA Score		
		Median (Min.-mak.)	Mean±standard deviation	p
Do you know that cancer screening is carried out in our country within the scope of National Screening?	Yes	50 (29-75)	50.19±7.56	<sup>(a)</sup> <0,001
	No.	47 (33-66)	47.04±5.9	
Does anyone know about CEDSE?	I have knowledge (1)	51 (33-75)	51.22±8.58	<sup>(b)</sup> <0,001 (1>2)
	No information (2)	47 (29-67)	47.78±6.39	
	I have heard of it but do not have detailed information (3)	50 (34-67)	49.64±6.35	
Has he/she been screened for cancer?	Yes	48 (29-72)	48.74±6,9	<sup>a)</sup> 0,705
	No.	48 (33-75)	49.06±7,24	
<sup>a</sup> Independent sample t, *p<0.01				
<sup>b</sup> One-way analysis of variance				

**Table 4.** Comparison of HRQOL Scores with Participants' Knowledge of Cancer Screenings in Turkey

		SLA Score		
		Median (Min.-mak.)	Mean±standard deviation	p
Knowledge of 3 Cancer Screenings (breast, colon, cervix) in Turkey	Does not know	48 (29-72)	47.98±6.63	<sup>(a)</sup> <0,001*
	He knows	52 (34-75)	52.09±7.75	
<sup>o</sup> Mann Whitney U, *p<0.01				

## DISCUSSION

Cancer incidence is increasing by 1-2% per year in most countries around the world. However, in a limited number of developed countries, this increase has been brought under control and in some cases a downward trend has been observed. Examining countries with effective cancer control demonstrates that sustained, long-term strategies are essential, with the nationwide establishment of community-based screening for breast, cervical, and colorectal cancers being a key factor in policy success [13].

Knowledge of breast and cervical cancer screening was notably high among those aware of national programs, at 84.5% and 78.9%, respectively, aligning with the results reported by Şen (77.2% for breast cancer and 74.9% for cervical cancer) [14]. This may suggest that national campaigns for these cancer types are effective. In contrast, awareness of colon cancer screening was significantly lower in both this study (52.58%) and Şen's study (47.2%) [14]. This result indicates that colon cancer screening is less known in the community and that there is insufficient information about early diagnosis and preventability.

Among the participants included in the study, the proportion of those who correctly knew which cancers were screened under the national screening program (only breast, colon and cervical cancer) was 23.44%. This highlights the necessity for more effective dissemination of national screening programs, given that Dinç's study found an awareness rate of only 18.8% [15].

In our study, the information sources of the participants who had information about cancer screening were examined and it was found that family physicians were the most common source of information (43.3%). This was followed by neighbors/environment (15.46%), other health professionals (15.46%), specialty physicians (12.89%) and media/magazines/newspapers (12.89%). The results of the study are partially similar to other studies in the literature. The fact that family physicians were at the forefront as a source of information is consistent with Dinç's study [15]. However, in Şen's study, media and other health personnel were found to be more prominent [14]. The observed differences may stem from regional, demographic, or media influences. In conclusion, it is recommended that information campaigns in cancer screening should effectively use channels such as family physicians, other healthcare professionals, the environment and the media.

In our study, 24.38% of the participants had information about CEDSE, 58.13% had no information, and 17.5% had

heard of CEDSE but did not have detailed data.

The results align with Aslan's study, where only 20.9% reported having knowledge of CEDSE, 57.0% had no knowledge, and 22.1% had only heard of it, underscoring low general awareness and insufficient promotion [16].

In our study, 35.63% of the participants stated that they had been screened for cancer at least once in their lives, while 64.38% stated that they had never been screened. These results show that cancer screening rates are insufficient in the community and early diagnosis opportunities are not sufficiently utilized. Compared to other studies in the literature, the rate of screening was lower in Tekpınar's study (23.3%), while this rate was higher in Dinç's study (47.2%) and Yeğenler's study (42.40%) [15,17,18].

In Dinç's study, 66.0% of the participants were screened for cervical, 49.2% for breast and 43.5% for colon cancer [15]. In our study, breast cancer screenings (47.37%) were similar, while cervical (50%) and colon cancer screenings (38.6%) were lower. These differences may be explained by regional awareness and access to health services. In our study, breast and cervical cancer screenings were balanced, while colon cancer screenings were less attended. This may be associated with reservations towards difficult screening methods such as colonoscopy.

In our study, the most common reasons given by the participants who did not undergo cancer screening were as follows: "not knowing that screening is available" (48.54%), "fear of a bad disease" (37.86%), "hesitation to go to the doctor" (23.79%), "lack of time" (23.30%), "not knowing where to apply" (22.33%), "not trusting medicine" (3.52%) and "financial barriers" (1.93%). 36.41% of the participants selected "other" reasons. These findings suggest that multidimensional factors such as lack of information, psychological concerns and practical barriers affect screening participation. Similar barriers are also emphasized in the literature. There is a need for targeted information campaigns, especially for younger age groups, and clarification of screening programs according to age and risk groups.

In our study, the most common reason for not undergoing cancer screening was not knowing that screening was available (48.54%). This was followed by fear of serious illness (37.86%), reluctance to visit a doctor, lack of time, and not knowing where to go. Other reasons were also cited by 36.41% of respondents. The findings show that lack of awareness is the main barrier. Similarly, Filiz's study found that lack of knowledge was the most common reason, while

Özel's and Sualp's study found that "because I think I am healthy" was the most common reason [19,20,21]. Since this option was not included in our study, it is thought that some participants may have indicated this response in the "other" category. Furthermore, the inclusion of individuals over the age of 18 may have led those who had not yet reached the screening age to select the "other" response. Fear of serious illness ranked second, and concerns about screening results were found to significantly influence individuals' behavior.

The study revealed a weak inverse relationship between age and health perception, corroborating comparable results in prior research. In Şen's study, it was stated that health perception scores decreased as age increased, indicating that aging may negatively affect individuals' health perception [14]. Nonetheless, the absence of a significant correlation in Altunoğlu's study indicates that variables such as health status, lifestyle habits, and socioeconomic status could affect the relationship between age and health perception. [22].

Considering the relationship between marital status and health perception, it was found significant that widowed/divorced individuals had lower HRQOL scores than married and single individuals in the study. The result is in agreement with the study by Yılmaz et al., which demonstrated elevated health perception scores among married individuals[23].

An analysis of the relationship between education level and health perception revealed that individuals with a high school education or higher had higher HRQOL scores compared to those with less than a high school education. This finding is consistent with the studies of Şen and Kolaç et al. In both studies, it was reported that health perception scores of university graduates were higher than those of other educational levels [23,24].

The relationship between place of residence and health perception showed that the HRQOL scores of individuals living in villages were lower than those living in provincial and district centers in the study. The observed difference may reflect restricted availability of health services in rural regions.

In terms of health behaviors, it was found that individuals who exercised regularly, paid attention to healthy nutrition, did not smoke and were health workers had higher HRQOL scores. This shows that positive health behaviors can strengthen individuals' perceptions of their own health status. In the literature, Şen's study also reported that individuals who regularly practiced sports and paid attention to healthy nutrition had higher health perceptions [14]. However, in Kolaç et al.'s study, individuals who used alcohol had higher health perception scores, indicating that how such behaviors affect individuals' health perception should be investigated in more depth [24].

In our study, the fact that chronic disease, cancer diagnosis and cancer diagnosis in the immediate environment were not found to be associated with health perception differs from some studies in the literature. Yılmaz et al. reported that individuals without a history of chronic disease had higher health perception scores [23]. The observed

difference could be due to sample heterogeneity and the influence of cancer screening awareness on health perception. These findings suggest that the factors affecting individuals' health perception are multidimensional and that variables such as demographic, socioeconomic, health behaviors and lifestyle should be considered together.

The study assessed the relationship between patients' health perception and their awareness of cancer screening within a family medicine setting. The findings revealed that health perception (HRQoL) was associated with cancer screening awareness and knowledge levels of individuals, but this relationship was not reflected in screening behavior. The results of our study emphasize both the overlapping and differentiating aspects of the link between health perception and cancer screening awareness with similar studies in the literature.

The fact that the HRQoL scores of individuals who were aware of national screening programs were significantly higher than those of individuals who were not aware of national screening programs indicates that individuals' health perceptions increase in direct proportion to their level of knowledge. This emphasizes the importance of raising awareness about health services in the community on the development of health perception. In particular, effective promotion of national screening programs can positively affect health behaviors by strengthening individuals' health perception. Similarly, the fact that the HRQoL scores of individuals who were informed about CEDSE were significantly higher than those of individuals who were not informed about CEDSE supports the critical role of CEDSE in terms of public health. It is seen that CEDSEs are not only cancer screening centers, but also serve as information centers that improve individuals' perception of health.

In our study, no significant correlation was found between having had cancer screening at least once in one's life and HRQOL score. This shows that health perception cannot be explained only by cancer screening behavior. This finding indicates that health perception is affected by multidimensional factors such as individuals' knowledge levels, beliefs, socioeconomic conditions and personal health values. In addition, it is thought that only screening behavior does not increase health perception and that it is critical for individuals to understand the purpose and importance of screening in order for this behavior to gain meaning.

In our study, the fact that the HRQoL scores of individuals who correctly knew the national cancer screenings as only breast, colon and cervical cancers were significantly higher than those who knew this information incorrectly or incompletely supports the positive effect of having correct information on health perception. This result shows that increasing health literacy can positively affect individuals' health perception. Compared to Şen's study titled "The Relationship Between Health Perception and Cancer Screening Awareness", this study reported that there was no significant relationship between the variables of cancer screening knowledge and number of known cancer screenings [14]. This difference in the literature may be

explained by the fact that a subjective construct such as health perception is affected by socioeconomic, cultural and psychological characteristics of individuals.

## CONCLUSION

Our study found that health perception is influenced by demographic and behavioral factors, being lower among individuals in rural areas, those with lower education levels, and those who are widowed or divorced. Positive health behaviors such as healthy eating, regular exercise, and not smoking were associated with better health perception. Although awareness of national cancer screening programs was high, knowledge (especially about colon cancer screening) remained limited, and awareness did not necessarily lead to participation. Overall, these findings highlight the need for community-based strategies to improve both health perception and engagement in preventive health behaviors.

### Author contribution:

Working Concept/Design: Hİ

Data Collection: Hİ

Data Analysis /Interpretation: MMS, Hİ

Text Draft: MMS, Hİ

Critical Review of Content: MMS, Hİ,

Final approval and accountability: MMS, Hİ

Material and technical support: MMS, Hİ,

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