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EVALUATION OF ATTITUDES AND BEHAVIORS TOWARDS CANCER SCREENING IN PEOPLE 30-70 YEARS OLD

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ABSTRACT

Aim: The aim of this study was to determine the attitudes and behaviors of people 30-70 years old towards cancer screening tests and to examine the factors affecting them.

Methods: This cross-sectional study was conducted with people 30-70 years old who applied to the Family Medicine Outpatient Clinic of a tertiary hospital between January and March 2021and met the inclusion criteria. A patient information form and the Attitude Scale for Cancer Screening (ASCS) were used.

Results: The mean age of the 349 people included in the study was 44.14±9.58 (min:31-max:69) years, and the mean total ASCS score was 101.60±12.85 (min:48-max:120).Those with chronic diseases, those who had a previous cancer screening, and those with a history of cancer themselves and/or their first-degree relatives had a statistically significantly higher ASCS score (p=0.009; p<0.001; p=0.048; p=0.050, respectively).No significant correlation was found between ASCS score and age, marital status, education level, employment status, and income status.

Conclusions: According to the scores obtained from the scale, it was concluded that the attitudes toward cancer screenings were positive. The presence of chronic disease, personal and/or family history of cancer, and previous cancer screening were the factors that positively affected the attitude toward cancer screening.Due to some characteristics that cannot be changed, such as age and gender, the public should be made aware that there may be a risk of cancer even in people who are healthy, and that early diagnosis is possible with screening programs.

Keywords: Cancerscreening, colonoscopy, cervical smear, mammography

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INTRODUCTION

Although there have been positive developments in terms of diagnosis and treatment, cancer is still one of the top 10 most common causes of death worldwide [1]. It has also become an important cause of morbidity and mortality in our country and was ranked second among the causes of death in 2021 [2].

Early diagnosis of cancer is important in terms of reducing the death rate due to cancer, as well as reducing complications, metastases and relapses [3]. In this context, there are different cancer screening programs that each country implements in planned periods according to age and risk factors [4-7]. In our country, within the framework of the "National Cancer Screening Program", screening for colorectal, cervical and breast cancer is performed for women and colorectal cancer for men. Unfortunately, however, the participation rate in cancer screenings varies between 20-35% and remains at a relatively low level compared to thetargeted level [8,9].

One of the most important factors that ensures the effective maintenance of cancer screening programs is the increase of individual and social awareness. Although people may know they are healthy, they should be made aware that they may be at risk of cancer and that they can be diagnosed at an early stage thanks to scans. According to studies in which individual attitudes and behaviors towards cancer screening were examined and their reflections on society were investigated, the level of knowledge in society, including those who want to undergo cancer screening, is insufficient. In addition, it has been observed that many factors such as age, gender, educational status and family history of cancer can affect the attitude toward screening [10-14].

The aim of this study was to determine the attitudes and behaviors of people 30-70 years old towards cancer screening tests and to examine the factors affecting them.

METHODS

Permission was obtained from the Local Ethics Committee (Date: 30.12.2020 and Approval Number: 214) for the implementation of this cross-sectional study. In this study, conducted according to the principles of the Declaration of Helsinki, oral and written informed consent was obtained from all participants.

Study sample

The study was conducted with 349 patients. People under the age of 30 and over the age of 70, those with known acute health problems, those with mental, cognitive and/or visual disabilities that would prevent them from answering the questions asked, those who were illiterate and those who did not agree to participate were excluded from the study.

Data collection tools

The Patient Information Form and the Attitude Scale towards Cancer Screenings (ASCS) were used.

Patient Information Form

Cancer screening (smear, mammography, colonoscopy, hidden blood in the stool, rectal examination for prostate, searching for tuberculosis in

sputum, etc.) with sociodemographic (gender, age, marital status, income status, work status and presence of health insurance) and medical characteristics of the participants (presence of chronic disease, smoking, healthy eating status, cancer diagnosis, cancer diagnosis in a first-degree relative)with a patient information form consisting of questions about the conditions of the procedure were used.

The Attitude Scale towards Cancer Screening

The ASCSwas developed in 2020 by Oztürk et al. and a validity and reliability study was conducted for Turkish (Cronbach alpha=0.95). It is a five-point Likert type of scale that can be applied to adults between the ages of 30-70 and consists of 24 items (score of 5: I completely agree, score of 1: I completely disagree). Items that are significantly negative in the calculation of scale scores (item 9, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 24)are encoded in reverse. A score between 24-120 can be obtained from the scale, and an increase in score shows a positive attitude towards cancer screening [15].

Statistical Analysis

SPSS (IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.)softwarewas used for statistical analysis of the obtained data. Shapiro-Wilk-W test, Kolmogorov Smirnov test, skewness and kurtosis values were used to show the normality distribution of the data. Descriptive statistics for continuous variables were specified with mean and standard deviation, and descriptive statistics for categorical data were specified as frequency and percentage. Categorical data were compared using the Chi-square test. In the comparison of quantitative data, independent samples t Test and One-Way Analysis of Variance (ANOVA) test were used for those variables that met the normal distribution assumption. Paired t Test was used for statistical evaluation of the comparison of survey scores calculated according to the answers given to the surveys. Statistical significance was accepted as $p<0.05$.

RESULTS

The average age of the 349 people included in the study was 44.14±9.58 (min:31-max:69) years, 50.70% (n=177) were men, 40.1% (n=140%) were university graduates, 35.5% (n=124) had any chronic disease, 4.6% (n=16%) had a history of diagnosedcancer, and 25.8% (n=90) had a history of cancer diagnosed in first-degree relatives. 42.4% (n=148) had previously had any cancer screening. Information on sociodemographic characteristics and medical history of the participants are summarized in Table-1.The distribution of the answers given to the questions in the ASCS is shown in Table-2.

Table1. Information on the sociodemographic characteristics and medical history of the participants

		n (%)
Age groups (years)	30-39	144 (41.20%)
	40-49	111 (31.80%)
	50-59	62 (17.80%)
	60-69	32 (9.20%)
Gender	Male	177 (50.70%)
	Female	172 (49.30%)
Marital status	Married	308 (88.30%)
	Single	41 (11.70%)
Education	Primary	79 (22.70%)
	Secondary	18 (5.20%)
	High	45 (12.90%)
	University	140 (40.10%)
	Postgraduate	67 (19.10%)
Occupation	Yes	237 (67.90%)
	No	112 (32.10%)
Income	Low	82 (23.50%)
	Moderate	163 (46.70%)
	High	104 (29.80%)
Smoking	Yes	189 (54.20%)
	No	160 (45.80%)
Chronic Diseases	Yes	124 (35.50%)
	No	225 (64.50%)
Presence of Cancer Disease with Diagnosis Confirmed	Yes	16 (4.60%)
	No	333 (95.40%)
Presence of Cancer in First-Degree Relatives	Yes	90 (25.80%)
	No	259 (74.20%)
Status of Having Cancer Screening	Yes	148 (42.40%)
	No	201 (57.60%)

Table2. Distribution of Answers Given to the Questions on the Attitude Scale for Cancer Screening

	Don't Agree At All n (%)	**Slightly Disagree** n (%)	**Neither Agree nor Disagree** n (%)	**Slightly Agree** n (%)	**Completely Agree** n (%)
I would like to have cancer screening at regular intervals.	25 (7.1%)	10 (2.9%)	41(11.7%)	69 (19.8%)	204 (58.5%)
I would like to have a cancer screening soon.	29 (8.3%)	18 (5.2%)	44 (12.6%)	82 (23.5%)	176 (50.4%)
I would like to get information about cancer screening tests.	19 (5.4%)	10 (2.9%)	11 (3.2%)	59 (16.9%)	250 (71.6%)
If there's anything I'm curious about in cancer screenings, I'll look into it to find out.	9 (2.6%)	6 (1.8%)	26 (7.4%)	64 (18.3%)	244 (69.9%)
When I have a cancer screening test, I track the results.	4 (1.1%)	2 (0.6%)	4 (1.1%)	31(8.9%)	308 (88.3%)
I encourage people in my immediate vicinity to get cancer screening.	15 (4.3%)	13 (3.7%)	39 (11.2%)	59 (16.9%)	223 (63.9%)
Information about cancer screenings on TV, on the Internet and in the newspaper has a positive effect on my getting screened.	20 (5.7%)	9 (2.6%)	37 (10.6%)	67 (19.2%)	216 (61.9%)
The fact that a healthcare professional recommends that I get cancer screening increases the likelihood that I will get screened.	8 (2.3%)	5 (1.4%)	19 (5.4%)	48 (13.8%)	269 (77.1%)
The fact that someone in my immediate vicinity has cancer does not increase the likelihood that I will get cancer screening.	152 (43.6%)	53 (15.2%)	45 (12.9%)	55 (15.7%)	44 (12.6%)
When I have a cancer screening, I think I'm doing something good for myself.	6 (1.7%)	1 (0.3%)	14 (4%)	51 (14.6%)	277 (79.4%)
I only get cancer screening tests because I want them myself.	22 (6.3%)	16 (4.6%)	49 (14.1%)	93 (26.6%)	169 (48.4%)
I don't want to have cancer screening because I'm afraid the test results will come out bad.	203 (58.2%)	37 (10.6%)	36(10.3%)	52 (14.9%)	21 (6%)
Even if I don't have any complaints, I'll get a cancer screening.	44 (12.6%)	25 (7.2%)	64 (18.3%)	66 (18.9%)	150 (43%)

I don't get a scan when the cancer screening site is too far away for me to go.	125 (35.8%)	47 (13.5%)	49 (14%)	82 (23.5%)	46 (13.2%)
I can't find the time to get a cancer screening.	166 (47.5%)	63 (18.1%)	48 (13.7%)	55 (15.8%)	17 (4.9%)
I forget to apply for cancer screening.	177 (50.7%)	48 (13.8%)	44 (12.6%)	63 (18%)	17 (4.9%)
I think it's unnecessary to have a cancer screening.	291 (83.4%)	22 (6.3%)	21 (6%)	7 (2%)	8 (2.3%)
I think my age is not suitable for cancer screening.	239 (68.5%)	30 (8.6%)	35 (10%)	35 (10%)	10 (2.9%)
I'm afraid the cancer screening tests will hurt me.	200 (57.3%)	40 (11.5%)	31 (8.9%)	58 (16.6%)	20 (5.7%)
I'm afraid of the side effects of cancer screening tests.	188 (53.9%)	41 (11.7%)	35 (10%)	62 (17.8%)	23 (6.6%)
I find the procedures for cancer screening embarrassing.	267 (76.5%)	24 (6.9%)	24 (6.9%)	29 (8.3%)	5 (1.4%)
I don't trust the results of cancer screening tests.	251 (71.9%)	52 (14.9%)	26 (7.4%)	16 (4.6%)	4 (1.2%)
I don't feel the need to get cancer screening because I think cancer won't happen to me.	292 (83.7%)	26 (7.4%)	14 (4%)	11 (3.2%)	6 (1.7%)
I have more important things to do than getting cancer screenings.	282 (80.8%)	28 (8%)	22 (6.3%)	12 (3.4%)	5 (1.5%)

The total ASCS score of the participants was 101.6±12.85 (min:48-max:120%) on average. The ASCS score of those with any chronic disease was statistically significantly higher than those without chronic disease (p=0.009). The ASCS score of those who had a previous history of cancer was statistically significantly higher than those who did not have a history of cancer (p=0.048; p=0.050, respectively). The ASCS score of those who had any previous cancer screening was also statistically significantly higher than those who had never had screening (p<0.001). There was no statistically significant relationship between the score obtained from the ASCS and age, gender, marital status, educational level, active work status and income status. The relationship between the data on sociodemographic characteristics and medical history of the participants andASCS scores is presented in Table-3.

Table3. Distribution of Attitude Scale Score towards Cancer Screenings according to Study Parameters

		Mean± Standard Deviation	**Minimum-Maximum**	**p-value**
Age	30-39	100.07±13.37	48-120	0.227
	40-49	102.67±10.91	69-120	
	50-59	103.58±13.9	55-120	
	60-69	101±14.29	66-120	
Gender	Male	100.52±13.97	48-120	0.109
	Female	102.72±11.52	60-120	
Marital Status	Married	101.47±12.73	55-120	0.604
	Single	102.59±13.84	48-120	
Education	Primary	102.23±13.53	60-120	0.228
	Secondary	107.72±7.11	93-120	
	High	102.38±12.51	67-120	
	University	100.46±12.87	48-120	
	Undergraduate	101.09±13.19	62-119	
Occupation	Yes	101.92±12.29	55-120	0.500
	No	100.93±14.01	48-120	
Income	Low	99.55±14.21	60-120	0.202
	Moderate	102.66±12.43	48-120	
	High	101.57±12.29	62-120	
Smoking	Yes	103.65±12.22	48-120	0.001*
	No	99.19±13.19	55-120	
Chronic Diseases	Yes	103.88±10.94	65-120	0.009*
	No	100.35±13.66	48-120	
History of Cancer	Yes	107.81±10.51	84-120	0.048*
	No	101.31±12.89	48-120	
History of Cancer in a First-Degree Relative	Yes	103.8±12.63	55-120	0.050*
	No	100.84±12.86	48-120	
Status of Having Cancer Screening	Yes	104.35±11.5	60-120	<0.001*
	No	99.58±13.44	48-120	

DISCUSSION

In this study conducted to determine the attitudes and behaviors of people between the ages of 30 and 70 towards cancer screening tests and to examine the factors affecting them, the participants' participation level in screening was low but their attitudes towards cancer screening were positive based on the scale score. It was found that the attitude towards cancer screening was more positive in those with any chronic disease and those with a history of cancer themselves and/or in their family. However, no statistically significant relationship was found between the scores and sociodemographic characteristics (such as gender, age, marital status, education level, and income level).

There are many studies in the literature that examine people's attitudes and behaviors towards cancer screenings. In addition to examinations conducted in the general population, it is observed that gender-specific evaluations and cancer type have also been examined. It is noticeable that in most of the studies, questionnaire forms containing questions prepared by the researcher using the literature are used to evaluate attitudes and behaviors towards cancer screening [10-14]. In our study, we used the ASCS, a specific Turkish scale newly introduced into the literature for the purpose of evaluating people's attitudes and behaviors towards cancer.

In the study in which ASCS was developed and conducted with an equal number of participants of both sexes, the total ASCS score was found to have an average of 60.51±27.80 [15]. In another study examining women's health perceptions and attitudes towards cancer screening, the 15-question short form of the ASCS was used and the average score was found to be 65.19±8.45 [10].In our study, the total ASCS score of the participants (average 101.6±12.85%) was found to be higher than both these studies. The result we obtained shows that the attitude of our participants towards cancer screenings was more positive, and this shows promise in terms of people being more involved in preventive health behaviors. Nevertheless, it is necessary to evaluate the attitude towards cancer screening and its impact on screening participation rates with other studies to be conducted.

Many factors such as age, gender, educational status, family history of cancer, etc. have been reported to affect people's attitude towards cancer screening and the status of getting screened [10, 11, 15, 16]. The fact that the studies in the literature were conducted with participants of different age ranges may cause variability in the results obtained. It has been concluded that with advancing age, people consider themselves at greater risk of cancer compared to the general population. Oztürk et al.found that the sensitivity to cancer screening increases with increasing age[15].Similarly, Tekpınar et al. in a study investigating the knowledge levels and behaviors about cancer screening of patients admitted to Family Medicine Outpatient Clinics, it was found that the rate of cancer screening increased with increasing age [11]. Erdem et al. found that the rate of cancer screening is lower in people under the age of 40 [16].

In our study, similar to the results of Uysal and Toprak [10], there was no statistically significant relationship between age and the status of cancer

screening and attitude towards cancer screening. It is likely that people aged 50 and under, who make up more than half of our study population, interpret cancer as a health problem that occurs at an older age, so they think they do not need cancer screening.

It is noticeable that different results have been obtained on the basis of gender in the studies conducted. In one study, it was found that those who underwent cancer screening were mostly women [11]. It has been reported that women are more likely to have information about cancer, take measures to protect themselves from cancer, and undergo cancer screening than men [16]. In the main study in which the ASCS was developed, it was found that the attitude toward cancer screening in men was more positive than in women.[15].In our study, the ASCS total scores were higher for both sexes than in the study of Oztürk et al., but there was no statistically significant difference.

As the level of education increases, the level of knowledge about cancer screening may also increase [16]. However, increasing the level of education may not always create a positive attitude towards cancer screening. As a matter of fact, in the study in which the ASCS was developed, it was found that the attitude towards cancer screening was negatively affected as the level of education increased [15]. Similarly, Tekpınar et al., found that the willingness to undergo cancer screening was lower in people with university degrees compared to those with other levels of education [11]. According to a systematic review, cancer screening participation is higher in those with a low level of education [17]. On the other hand, there was no significant difference between education and cancer screening scores [10]. In our study, more than half of the participants had a university or higher education level, and this might have affected our results.

The presence of people who have been diagnosed with cancer in a person's immediate vicinity affects awareness of cancer screening. According to Kaya et al. it has been shown that the participation of people with a history of cancer themselves or in their family in cancer screenings was significantly higher [18]. Oztürk et al., on the other hand, found the average scores of ASCSto be significantly lower in those who had a history of cancer themselves [15]. According to Uysal and Toprak, having a family history of cancer did not affect the attitude toward cancer screening [10].In our study, we found that the attitude toward cancer screening was more positive in those with a history of cancer themselves and/or in their family. This result can be explained by the fact that those diagnosed with cancer in the family have more information about cancer screening and pay attention to the risk of genetic transmission. A negative attitude towards scans seen in people with a previous history of cancer may be due to the person thinking that the disease will not recur, as well as a fear of being diagnosed with cancer again.

Oztürk et al. found that there was no significant difference in the ASCS score of those who had previously been screened for cancer [15].In Uysal and Toprak's study, it was found that 37.9% of the participants had previously been screened for cancer, and similarly to our study, those who had previously

been screened for cancer had higher average ASCS scores [10].

In order to have cancer screening, it is necessary to create awareness about cancer, as well as to provide appropriate conditions from an individual and social point of view. It is likely that a more positive attitude towards cancer screening was exhibited due to the awareness that is expected to be formed in individuals who have previously been screened for cancer. However, it should also be taken into account that cancer screenings were negatively affected by the disruptions experienced during the pandemic period in which our study was conducted. Currently, it is thought that by focusing on health policies for cancer screening, awareness and continuity of cancer screening can be increased.

Limitations

A limitation of our study is that the results obtained cannot be generalized to the society due to the fact that it was single-centered. A strong aspect of our study was that it was conducted using a specific Turkish scale that evaluates attitudes towards cancer screening and has recently been introduced into the literature.

Conclusions

According to this study, although the participants' attitudes towards cancer screenings were found to be positive, the level of participation in screenings was low. The presence of chronic disease, the individual's and/or family history of cancer, and having previously been screened for cancer were factors that positively influenced the attitude towards cancer screening. Awareness should be instilled in societythat although people are healthy, they may still be at risk of cancer due to some characteristics that cannot be changed, such as age and gender, and that early diagnosis will be possible if they participate in regulated screening programs. In order to increase society's knowledge and awareness of cancer screening and screening rates, all physicians, especially primary care physicians who are the first point of contact in society, have a great responsibility.

Conflict of interest

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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References

1.Bray, F., Ferlay, J., Soerjomataram, I., Siegel, R. L., Torre, L. A., & Jemal, A. (2018). Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: a cancer journal for clinicians*, *68*(6), 394-424.

2.TUİK ÖlümveÖlümNedeniİstatistikleri, 2021https://data.tuik.gov.tr/Bulten/Index?p=Olum-ve-Olum-Nedeni-Istatistikleri-2021-45715Erişim tarihi: 24.02.2023

3. Eren, O.Ö. (2017).Kansertaramalarıvekanserdenkorunma. *KlinikTıpAileHekimliği*, 9(2),7-14.

4. Smith, R.A., Andrews, K.S., Brooks, D., Fedewa, S.A., Manassaram-Baptiste, D., Saslow, D., et al. (2019). Cancer screening in the United States, 2019: A review of current American Cancer Society guidelines and current issues in cancer screening. *CA Cancer J Clin*,69(3),184-210.

5.Hamashima, C. (2018). Systematic Review Group and Guideline Development Group for Gastric Cancer Screening Guidelines. Update version of the Japanese Guidelines for Gastric Cancer Screening. *Jpn J Clin Oncol*, 48(7),673-683.

6.Solmi, F., Von Wagner, C., Kobayashi, L.C., Raine, R., Wardle, J.& Morris, S. (2015). Decomposingsocio-economic inequality in colorectal cancer screening uptake in England. *Social science & medicine,* 134,76-86.

7.Ebell, M.H., Thai,T.N.,& Royalty, K.J. (2018). Cancer screening recommendations: An international comparison of high income countries. *Public health reviews,39*(1),1-19.

8. Özkan, S., Keskinkılıç, B., Gültekin, M., Karaca, A.S., Öztürk,C.,&Boztaş, G. (2016).UlusalKanserKontrolPlanı 2013–2018. TC. SağlıkBakanlığıTürkiyeHalkSağlığıKurumuYayınları, Ankara,18-56.

9. T.C. SağlıkBakanlığıHalkSağlığıGenelMüdürlüğüUlusalKanserTaramaStandartları. https://hsgm.saglik.gov.tr/tr/kanser-tarama-standartlariErişim tarihi: 10.01.2023

10. Uysal, N.&Toprak, F. Ü. (2022).Kadınlarınsağlıkalgıları, kansertaramalarınayöneliktutumlarıveetkileyenfaktörlerinbelirlenmesi. *Adnan Menderes ÜniversitesiSağlıkBilimleriFakültesi Dergisi,6*(1), 65-76.

11.Tekpınar, H., Özen,M.,&Aşık, Z. (2018).Ailehekimliğipolikliniğinebaşvuranhastalarınkansertaramalarınailişkinyaklaşımlarınındeğerlendirilmesi. *TürkAileHek Derg,22*(1), 28-36.

12.Açıkgöz, A., Çehreli, R., &Ellidokuz, H. (2011). Kadınlarınkanserkonusundabilgivetutumlarıileerkentanıyöntemlerineyönelikdavranışları. *DokuzEylülÜniversitesiTıpFakültesiDergisi,* 25(3), 145-154.

13. Sancaktar,E.,&Tuncer, Ö. (2021).Erişkinkişilerinkolorektalkanser risk faktörleriveerkentanıyöntemlerihakkındakibilgi, tutumvedavranışlarınınincelenmesi. *TürkAileHekDerg*, 25(2), 53-58.

14. Babaoğlu, A., Büyüközmen,E.,& Can, F. (2021).İzmir'detoplumdakansertaramatestlerifarkındalığıvebireylerinkansertaramatestlerinekatılımınıetkileyenfaktörler. *Med J West Black Sea,* 5(2), 173-181.

15. YıldırımÖztürk, E.N., Uyar,M.,&Şahin, T.K. (2020). Development of an attitude scale for cancer screening. *Turk J Oncol,*35(4), 394–404.

16. Erdem, S.S., Yılmaz, M., Yıldırım, H., Mayda, A.S., Bolu, F., Durak, A.A., et. al. (2017).Düzce'deyaşayanlarınkanservekanser risk faktörlerihakkındabilgidüzeyi. *DüzceÜniversitesiSağlık BilimleriEnstitüsü Dergisi,*7(1),1-10.

17. Wools, A., Dapper,E.A.,& de Leeuw, J.R. (2016). Colorectal cancer screening participation: a systematic review. *Eur J Public Health,*26(1), 158-168.

18. Kaya, C., Üstü, Y., Özyörük, E., Aydemir, Ö., Şimşek,Ç.,&DemirciŞahin, A. (2017).Sağlıkçalışanlarınınkansertaramalarıhakkındaki bilgi, tutumvedavranışlarınındeğerlendirilmesi. *Ankara Med J*, (1), 73-83.