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Examination of the Relationship between Women's Perceptions of Health and Awareness of Gynecological Cancer

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ABSTRACT:
Purpose: The aim of this study is to determine the relationship between women's health perceptions and their awareness of gynecological cancer.
Materials and Methods: This descriptive study was conducted with 207 women. The data of the study were collected with the personal information form, the Perception of Health Scale (PHS), and the Gynecological Cancer Awareness Scale (GCAS). Descriptive statistics, Independent Sample-t test, ANOVA test, Mann-Whitney U test, Kruskal-Wallis test and Spearman correlation test were used in the analysis of the data. $p<0.05$ was considered statistically significant.
Results: The mean total score of women's PHS was 49.87±6.48, and the mean total score of GCAS was 153.71±18.79. A statistically significant positive correlation was found between the total score of the health perception scale and the total score of the gynecological cancer awareness scale ($r=0.309$, $p<0.001$). Women's marital status, education level, employment and economic status, frequency of going to gynecological examinations affect their health perceptions and awareness of gynecological cancer ($p<0.05$).
Conclusion: Early diagnosis of gynecological cancer reduces morbidity and mortality rates. For early diagnosis, women's awareness of gynecological cancer should be developed. As a result of the study, it was seen that as the health perceptions of women increased, their awareness of gynecological cancer also increased. It is recommended to raise awareness of health perceptions and gynecological cancer by informing women about gynecological cancer, early diagnosis, screening programs, and positive health behaviors.
Keywords: *Women, Health perception, Gynecological cancer, Cancer awareness.*

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INTRODUCTION

Cancer is a group of diseases that cause uncontrolled cell growth, depending on their location in the body and clinical features. In Globocan 2020 data, it is reported that breast and cervical cancer are among the five most common cancers in women in the world (Republic of Turkiye Ministry of Health, 2021). In Türkiye, breast, uterine corpus, ovarian and cervical cancers were among the top 10 cancers in women in 2017 (Republic of Turkiye Ministry of Health, 2017/2021). Gynaecological cancers originate from a woman's reproductive system (cervix, ovary, uterus, vaginal, vulvar and fallopian tube), each of which is referred to as the anatomical part where the cancer initiated (Ledford et al., 2019). Gynaecological cancers cause many physiological, psychological, economic and social problems in women and threaten their lives (Yagmur and Duman, 2016). Precautions such as developing a healthy lifestyle and avoiding risky behaviours are recommended for the prevention of gynaecological cancers (Kıyak and Burucu, 2022; Ozcan and Demir Dogan, 2021). Early diagnosis is very important in reducing cancer-related mortality rates. Women apply to health institutions late due to shame, lack of knowledge, religious beliefs, cultural problems, fear,

fatalism, and financial problems (Ozcan and Demir Dogan, 2021; Ozturk and Gursoy, 2020; Ndejjo et al., 2017). Women with low health literacy are less aware of the relationship between lifestyle and cancer and the purpose of cancer screening programmes (Boxell et al., 2012). To increase women's participation in early screening programmes, women's awareness of gynaecological cancer should be raised first (Kıyak and Burucu, 2022; Teskereci et al., 2020). High awareness of early screening programmes reduces cancer-related morbidity and mortality rates (Efe Arslan et al., 2022; Sahin, 2015; Durmaz et al., 2021). Women's health perceptions affect their health-related behaviours and health responsibilities (Ozdelikara et al., 2018). Similarly, attitude towards screening programmes, level of knowledge and access to screening services also affect participation in screening programmes (Ndejjo et al., 2017; Karakoyunlu Sen and Kılıc Ozturk, 2020). The health perception of the individual is very effective in acquiring preventive health behaviours (Uysal and Unal Toprak, 2022). Abandonment of negative health behaviours is associated with individuals' risk perceptions towards their health (Ferrer and Klein, 2015). Health perception is an important factor associated with patient outcomes, including quality of life, mental and physical health (Rathbun et al., 2020). Survival rates are higher in cancer cases detected with early diagnosis. In order for people to benefit from early diagnosis, their participation in cancer screening should be high. Studies have shown that people with positive health perception also have positive attitudes towards cancer screening (Uysal and Unal Toprak, 2022; Leung and Leung, 2010). This research was conducted to determine the relationship between women's health perceptions and their awareness of gynecological cancer.

MATERIAL and METHODS

Purpose and Type of the Study

This research was conducted to determine the relationship between women's health perceptions and their awareness of gynecological cancer. The research was planned as relation-seeking and cross-sectional.

Research questions

- What are women's perceptions of health?
- What is the gynecological cancer awareness status of women?
- Is there a relationship between health perceptions and gynecological cancer awareness?

Sampling and participant

The study was carried out between October-December, 2022. The sample of the current study consisted of the women between the ages of 18-65, being literate, having the ability to use a smartphone at a basic level, having no history/diagnosis of gynaecological cancer, and those with uterus, fallopian tubes and ovaries that were not surgically removed. In order to calculate the minimum sample size to be included in the study, the sample calculation formula used in cases where the number of people in the universe is unknown was used. $n= t^2.p.q / d^2$ [n= Population size; p= Sample proportion (the rate of women who underwent gynaecological examination for screening was taken as 0.11 in the study of Buyukkayacı Duman et al., 2015); q= Frequency of non-occurrence of the examined event (1-p); t= Critical value (95% confidence level) (1.96); d= Desired according to the frequency of occurrence ± deviation (0.05)]. According to this formula, the number of women to be sampled was found to be at least 150. Considering the possibility of invalid questionnaires, it was decided to include 200 women in the study. 207 women participated in the study.

Data Collection

The surveys were not delivered in hard copy, instead, a link including the surveys was created via a Google form. In the link, a question was asked concerning their consent to participate in the study. The link was sent to the women who met the inclusion criteria via whatsapp and instagram. In order to reach more participants, participants who agreed to participate in the study were asked to share the link in their friend groups. Participants accessed the scales after giving consent to participate in the study in the voluntary consent form. The system ensured that the questionnaires of the participants who marked only one answer option to the questions and items in the scales be sent by the system. Thus, the submission of

incomplete and multiple answers was prevented.

Data Collection Tools

Data were collected with Personal Information Form, Perception of Health Scale (PHS) and Gynaecological Cancer Awareness Scale (GCAS).

Personal Information Form

It is a form consisting of a total of 12 items to determine the sociodemographic and obstetric characteristics of the women participating in the study.

Perception of Health Scale (PHS)

The scale developed by Diamond et al. (Diamond et al., 2007) consists of 15 items and four sub-scales (importance of health, certainty, center of control and self-awareness) in five-point Likert type. Positive statements in the scale are scored as Strongly Agree (5), Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree (1), while negative statements are reverse scored (Items 2, 3, 4, 6, 7, 8, 12, 13 and 15). The lowest score that can be obtained from the scale is 15 and the highest score is 75. The Turkish validity and reliability study of the scale was conducted by Kadıoglu and Yıldız (Kadıoglu and Yıldız, 2012). The Cronbach Alpha coefficient of the scale was found to be 0.77. In this study, the Cronbach Alpha value of the scale was found to be 0.70.

Gynaecological Cancer Awareness Scale (GCAS)

This scale was developed by Nursel Alp Dal and Gul Ertem (Alp Dal and Ertem, 2017). GCAS consists of 41 items and four sub-scales (Routine Follow-up and Awareness of Serious Disease Perception in Gynecological Cancers, Awareness of Gynecological Cancer Risks, Awareness of Protection from Gynecological Cancers, Awareness of Early Diagnosis and Information in Gynecological Cancers). Scores between 41-205 can be obtained from the scale. As the score of women from GCAS increases, their awareness increases (Alp Dal and Ertem, 2017). The Cronbach Alpha value of GCAS is 0.94. In this study, the Cronbach Alpha value of the scale was 0.93.

Statistical Analysis

The data were evaluated with SPSS 28.0 programme (IBM Corp). Normality of the data was analysed by Kolmogrov-Smirnov test. Independent sample t and ANOVA tests were done for normally distributed data, Tukey's T2 tests were used to determine which group was different from the others if homogenic assumption was met, and Tamhane's T2 tests were used if homogenic assumption was not met. For non-normally distributed data, Mann-Whitney U and Kruskal-Wallis tests were used. Spearman correlation coefficient was used to determine the relationship. Results were evaluated with a 95% confidence interval and $p<0.05$ value accepted as a significance level.

Ethical Approval

Ethics committee permission (Date: 29.09.2022 Decision no: 2022/002-004) was obtained from an University Scientific Research and Publication Ethics Committee. Written informed consent was obtained from women who agreed to participate in the study.

RESULTS

The mean age of the women who participated in the study was 41.58±11.69 years. Of the women; 79.7% were married, 63.8% were university graduates, 71.5% had moderate economic status, and 74.4% had no chronic disease. Of women; 62.8% went for gynaecological examination when they had a complaint and 88.9% had no relatives with a diagnosis of gynaecological cancer (Table 1).

The total PHS mean score of the women was 49.87±6.48. The mean scores of importance of health, center of control, self-awareness, certainty subscales of PHS were 10.68±2.05, 16.46±3.40, 10.48±1.94, 12.23±3.04, respectively. The total GCAS mean score of the women was 153.71±18.79. The GCAS mean subscales scores were between 16.76±2.50-88.02±12.81 (Routine Follow-up and Awareness of Serious Disease Perception in Gynecological Cancers= 88.02±12.81, Awareness of Gynecological Cancer Risks= 27.58±5.17, Awareness of Protection from Gynecological Cancers= 21.34±3.68, Awareness of Early Diagnosis and Information in Gynecological Cancers= 16.76±2.50) (Table 2).

The relationship between women's perception of health scale and gynaecological cancer awareness scale is given in Table 3. A positive, weak and statistically significant relationship was found between the PHS importance of health and GCAS

routine follow-up and awareness of serious disease perception in gynecological cancers (r=0.270 p<0.001), awareness of protection from gynecological cancers (r=0.243 p<0.001), awareness of early diagnosis and information in gynecological cancers (r=0.171 p=0.014).

A positive and weak relationship was found between the PHS center of control and GCAS routine follow-up and awareness of serious disease perception in gynecological cancers (r=0.192 p=0.006). There is a weak positive relationship between the PHS self-awareness and GCAS routine follow-up and awareness of serious disease perception in gynecological cancers (r=0.154 p=0.026) and awareness of protection from gynecological cancers (r=0.199 p=0.004). A positive, weak and statistically significant relationship was found between the PHS certainty and GCAS routine follow-up and awareness of serious disease perception in gynecological cancers (r=0.196 p=0.005), awareness of protection from gynecological cancers (r=0.212 p=0.002), awareness of early diagnosis and information in gynecological cancers (r=0.181 p=0.009). A statistically significant positive weak correlation was found between the total PHS and the total GCAS mean scores (r=0.309, p<0.001). In addition, a positive weak statistically significant relationship was found between all subscales of PHS and the total GCAS (p<0.05).

A statistically significant difference was found between the education level of the women and the PHS certainty and the total PHS mean scores (p<0.05). The PHS certainty (F=8.473 p<0.001) and total PHS mean scores (F=5.146 p=0.002) of the university graduate women were higher than the other groups. A statistically significant difference was specified between the PHS center of control and total PHS mean scores according to employment status (p<0.05). The PHS the center of control (t=1.997 p=0.047), certainty (t=3.403 p<0.001) and total PHS mean scores (t=3.119 p=0.002) of the working women were higher.

Table 1. Descriptive characteristics of women (n: 207)

Characteristics	**n (%)**
Age±SD	41.58±11.69
Marital status	
Married	165 (79.7)
Single	42 (20.3)
Education level	
Primary School	25 (12.1)
Middle School	9 (4.3)
High School	41 (19.8)
University	132 (63.8)
Employment status	
Working	112 (54.1)
Not working	95 (45.9)
Economic status	
High	54 (26.1)
Moderate	148 (71.5)
Low	5 (2.4)
Number of births±SD	1.84±1.35
Presence of chronic disease	
Yes	53 (25.6)
No	154 (74.4)
Experiencing gynaecological examination	
Once or twice a year (for control purposes)	43 (20.8)
I go when I have a complaint	130 (62.8)
I'm not going	34 (16.4)
Presence of a family member diagnosed with gynaecological cancer	
Yes	23 (11.1)
No	184 (88.9)
Total	**207 (100)**

Table 2. Total PHS and GCAS Mean Scores of Women

Scale / Subscales	Scale Min – Max	X±SD	Cronbach α
The total mean score of Perception of Health Scale (PHS)	30-69	49.87±6.48	
Importance of health	5-15	10.68±2.05	
Center of control	7-25	16.46±3.40	0.705
Self-awareness	6-14	10.48±1.94	
Certainty	5-20	12.23±3.04	
The total mean score of Gynaecological Cancer Awareness Scale (GCAS)	55-199	153.71±18.79	
Routine Follow-up and Awareness of Serious Disease Perception in Gynecological Cancers	25-110	88.02±12.81	
Awareness of Gynecological Cancer Risks	11-44	27.58±5.17	0.933
Awareness of Protection from Gynecological Cancers	6-30	21.34±3.68	
Awareness of Early Diagnosis and Information in Gynecological Cancers	5-20	16.76±2.50	

Table 3. The relationship between Total PHS and GCAS Mean Scores of Women

Scales		Perception of Health Scale (PHS)				
		Importance of health	Center of control	Self-awareness	Certainty	The total Perception of Health Scale
Routine Follow-up and Awareness of Serious Disease Perception in Gynecological Cancers	**r**	0.270	0.192	0.154	0.196	0.344
	p	<0.001	0.006	0.026	0.005	<0.001
Awareness of Gynecological Cancer Risks	**r**	0.003	-0.043	0.078	-0.016	0.007
	p	0.961	0.534	0.263	0.822	0.922
Awareness of Protection from Gynecological Cancers	**r**	0.243	0.060	0.199	0.212	0.276
	p	<0.001	0.392	0.004	0.002	<0.001
Awareness of Early Diagnosis and Information in Gynecological Cancers	**r**	0.171	0.111	0.117	0.181	0.226
	p	0.014	0.112	0.093	0.009	0.001
The total Gynaecological Cancer Awareness Scale (GCAS)	**r**	0.230	0.145	0.177	0.185	0.309
	p	<0.001	0.038	0.011	0.007	<0.001

r: sperman correlation

A statistically significant difference was determined between economic status and the PHS importance of health and certainty (p<0.05). The PHS importance of health (F=3.521 p=0.031) and certainty (F=4.025 p=0.019) mean scores of women with good income status were higher than those with moderate income status. There is a statistically significant difference between the PHS importance of health mean score and the status of experiencing gynaecological examination (p<0.05). The PHS importance of health mean scores of those who did not apply to gynaecological examination were found to be lower than those who applied to examination once or twice a year and those who applied to examination when they had complaints (F=4.740 p=0.010). There is a statistically significant difference (p<0.05) between the PHS self-awareness mean score and women who had a family history of gynaecological cancer. The PHS self-awareness mean scores of women who had no family history of gynaecological cancer were found to be higher (t=-2.091 p=0.038) (Table 4).

Table 5 shows the comparison of the sociodemographic characteristics of the women with the GCAS' subscales and total GCAS median scores. There is a statistically significant difference between marital status and the median scores of GCAS routine follow-up and awareness of serious disease perception in gynecological cancers and total GCAS (p<0.05). The median scores of GCAS routine follow-up and awareness of serious disease perception in gynecological cancers (z=-2.228 p=0.026) and the total GCAS (z=-2.390 p=0.017) of married women were higher than those of the single women. It was determined that the education level had an effect on the GCAS awareness of gynecological cancer risks and GCAS awareness of early diagnosis and information in gynecological cancers (p<0.05).

Table 4. Comparison of PHS mean scores according to socio-demographic characteristics of women

Descriptive Characteristics	n	Perception of Health Scale (PHS)				
		Importance of health X±SS F, t, p	Center of control X±SS F, t, p	Self-awareness X±SS F, t, p	Certainty X±SS F, t, p	Total PHS X±SS F, t, p
Marital status						
Married	165	10.72±2.07	16.36±3.54	10.41±2.01	12.27±3.04	49.78±6.81
Single	42	10.52±2.00	16.85±2.78	10.76±1.63	12.07±3.06	50.21±5.01
		t: 0.554	t: -0.828	t: -1.024	t: 0.393	t: -0.380
		p: 0.580	p: 0.409	p: 0.307	p: 0.695	p: 0.705
Education level						
Primary School[a]	25	10.60±1.93	15.40±3.75	10.20±1.87	10.28±2.17	46.48±7.81
Middle School[b]	9	9.55±2.50	14.44±4.58	10.44±2.12	11.11±3.01	45.55±8.32
High School[c]	41	11.29±1.92	16.29±3.56	10.56±2.34	11.31±3.62	49.46±5.51
University[d]	132	10.58±2.06	16.86±3.13	10.52±1.82	12.96±2.74	50.93±6.06
		F: 2.256	F: 2.570	F: 0.215	F: 8.473	F: 5.146
		p: 0.083	p: 0.055	p: 0.886	p<0.001*	p: 0.002*
Post hoc					d>a,c	d>a
Employment status						
Working	112	10.72±1.95	16.91±2.88	10.62±1.77	12.88±2.95	51.14±5.97
Not working	95	10.63±2.18	15.94±3.87	10.32±2.12	11.47±2.98	48.37±6.77
		t: 0.318	t: 1.997	t: 1.087	t: 3.403	t: 3.119
		p: 0.750	p: 0.047*	p: 0.279	p<0.001*	p: 0.002*
Economic status						
High[a]	54	11.29±2.06	15.81±3.10	10.61±2.04	13.14±3.38	50.87±7.09
Moderate[b]	148	10.44±2.03	16.74±3.52	10.45±1.87	11.96±2.86	49.60±6.30
Low[c]	5	11.00±1.58	15.40±1.81	10.20±3.03	10.40±2.30	47.00±3.67
		F: 3.521	F: 1.737	F: 0.186	F: 4.025	F: 1.255
		p: 0.031*	p: 0.179	p: 0.830	p: 0.019*	p: 0.287
Post hoc		a>b			a>b	
Presence of chronic disease						
Yes	53	10.33±2.18	16.07±3.81	10.47±1.94	11.56±2.76	48.45±6.90
No	154	10.79±2.00	16.60±3.25	10.49±1.94	12.46±3.11	50.36±6.28
		t: -1.404	t: -0.975	t: -0.070	t: -1.870	t: -1.861
		p: 0.162	p: 0.331	p: 0.944	p: 0.063	p: 0.064
Experiencing gynaecological examination						
Once or twice a year (for control purposes)[a]	43	10.90±2.05	16.65±3.63	10.86±2.24	12.23±3.53	50.65±6.92
I go when I have a complaint[b]	130	10.86±1.91	16.44±3.34	10.38±1.84	12.21±3.06	49.90±6.44
I'm not going[c]	34	9.70±2.34	16.32±3.39	10.41±1.89	12.32±2.29	48.76±6.08
		F: 4.740	F: 0.095	F: 1.000	F: 0.026	F: 0.806
		p: 0.010*	p: 0.910	p: 0.370	p: 0.974	p: 0.448
Post hoc		a,b>c				
Presence of a family member diagnosed with gynaecological cancer						
Yes	23	10.69±1.98	16.30±3.33	9.69±1.81	11.91±3.02	48.60±6.18
No	184	10.67±2.07	16.48±3.41	10.58±1.93	12.27±3.05	50.03±6.52
		t: 0.036	t: -0.245	t: -2.091	t: -0.540	t: -0.993
		p: 0.972	p: 0.807	p: 0.038*	p: 0.590	p: 0.322

The median score of GCAS awareness of gynecological cancer risks was higher in university graduates than in high school graduates (KW=8.351 p=0.039), while the median score of the GCAS awareness of early diagnosis and information in gynecological cancers was higher in primary school graduates (KW=9.556 p=0.023). There is a statistically significant difference between GCAS awareness of gynecological cancer risks and GCAS awareness of early diagnosis and information in gynecological cancers in the working women (p<0.05). The median scores of GCAS awareness of gynecological cancer risks (z=-2.325 p=0.020) and GCAS awareness of early diagnosis and information in gynecological cancers (z=-2.476 p=0.013) were found to be higher in the working women.

Table 5. Comparison of the GCAS median scores according to the socio-demographic characteristics of women

Descriptive Characteristics	n	Gynaecological Cancer Awareness Scale (GCAS)				
		Routine Follow-up and Awareness of Serious Disease Perception in Gynecological Cancers	Awareness of Gynecological Cancer Risks	Awareness of Protection from Gynecological Cancers	Awareness of Early Diagnosis and Information in Gynecological Cancers	Total GCAS
		Median z, KW, p	Median z, KW, p	Median z, KW, p	Median z, KW, p	Median z, KW, p
Marital status						
Married	165	88.00	27.00	22.00	17.00	155.00
Single	42	85.00	28.00	21.00	16.00	149.00
		z: -2.228	z: -0.301	z: -1.745	z: -0.859	z: -2.390
		p: 0.026*	p: 0.763	p: 0.081	p: 0.390	p: 0.017*
Education level						
Primary School[a]	25	87.00	27.00	22.00	16.00	152.00
Middle School[b]	9	92.00	27.00	23.00	16.00	154.00
High School[c]	41	88.00	26.00	21.00	17.00	153.00
University[d]	132	87.00	28.00	21.00	17.50	154.00
		KW: 0.339	KW: 8.351	KW: 1.600	KW: 9.556	KW: 1.478
		p: 0.952	p: 0.039*	p: 0.659	p: 0.023*	p: 0.687
Post hoc			d>c		d>a	
Employment status						
Working	112	87.00	28.00	21.00	18.00	154.50
Not working	95	87.00	27.00	22.00	16.00	152.00
		z: -1.098	z: -2.325	z: -0.230	z: -2.476	z: -1.918
		p: 0.272	p: 0.020*	p: 0.818	p: 0.013*	p: 0.055
Economic status						
High[a]	54	89.00	27.00	22.50	17.50	156.00
Moderate[b]	148	87.00	27.00	21.00	17.00	153.00
Low[c]	5	87.00	24.00	20.00	16.00	145.00
		KW: 3.186	KW: 2.758	KW: 7.682	KW:2.370	KW: 4.756
		p: 0.203	p: 0.252	p: 0.021*	p: 0.306	p: 0.093
Post hoc				a>b		
Presence of chronic disease						
Yes	53	88.00	27.00	22.00	17.00	156.00
No	154	87.00	27.00	21.0	17.00	153.00
		z: -0.822	z: -0.307	z: -0.666	z: 0.200	z: -0.920
		p: 0.411	p: 0.759	p: 0.505	p: 0.841	p: 0.357
Experiencing gynaecological examination						
Once or twice a year (for control purposes)[a]	43	92.00	27.00	22.00	17.00	160.00
I go when I have a complaint[b]	130	88.00	28.00	22.00	17.00	154.00
I'm not going[c]	34	80.00	27.00	19.00	16.00	140.00
		KW: 15.424	KW: 3.134	KW: 14.140	KW: 5.209	KW: 17.970
		p: 0.000*	p: 0.209	p: 0.001*	p: 0.074	p: 0.000*
Post hoc		a,b>c		a,b>c		a,b>c
Presence of a family member diagnosed with gynaecological cancer						
Yes	23	86.00	27.00	21.00	17.00	155.00
No	184	87.50	27.00	22.00	17.00	153.00
		z: 0.296	z: 0.252	z: 0.639	z: -0.113	z: 0.198
		p: 0.768	p: 0.801	p: 0.523	p: 0.910	p: 0.843

Economic status was found to have a statistically significant effect on GCAS awareness of protection from gynecological cancers ($p<0.05$). Those who defined their economic status as high had a higher median score (KW=7.682 p=0.021) in GCAS awareness of protection from gynecological cancers

than those who defined their economic status as moderate. There is a statistically significant difference ($p<0.05$) between the status of applying to gynaecological examination and the GCAS routine control in gynaecological cancers and serious disease perception, GCAS awareness of protection from gynecological cancers, and total GCAS scores. Those who did not apply to gynaecological examination had lower median scores in GCAS routine control in gynaecological cancers and serious disease perception (KW=15.424 p=0.000), GCAS awareness of protection from gynecological cancers (KW=14.140 p=0.001) and total GCAS (KW=17.970 p=0.000).

DISCUSSION

In this study in which the relationship between women's health perceptions and their awareness of gynaecological cancer was examined, the total GCAS mean score of women was found to be 153.71±18.79. Other studies on the subject also support the results of the current study and the total GCAS mean scores are similar (Kıyak and Burucu, 2022; Ozcan and Demir Dogan, 2021; Gozuyesil et al., 2020; Kaya Senol et al., 2021). These results show that women's awareness of gynaecological cancer is around moderate. Participation in cancer screening programmes is very important to detect cancer at an early stage. When trainings are planned for women about the necessity of early diagnosis and screening programmes, it is thought that their awareness of gynaecological cancers will also increase. The total PHS mean score of the women participating in the study was 49.87±6.48, which is approximately moderate. In the study of Uysal and Unal Toprak (Uysal and Unal Toprak, 2022), total PHS mean scores of women was found to be 53.33±6.50; in the study of Karakoyunlu Sen and Kılıc Ozturk (Karakoyunlu Sen and Kılıc Ozturk, 2020), it was found to be 50.18±9.86. Health perception supports individuals to take responsibility for their health and develop positive health behaviours (Acıksoz et al., 2013). When individuals practice healthy lifestyle behaviours, they improve a sense of health (Kolac et al., 2018). As can be seen from the results of the study, the current health perceptions of women are not at a high level. Women's health perceptions can be increased by providing them with healthy lifestyle habits and their participation in early screening programmes for cancer can be increased. It is seen that the health perceptions of the women participating in the study advance with the increase in their level of education. In different studies, it was determined that education increased health perception (Karakoyunlu Sen and Kılıc Ozturk, 2020; Uysal and Unal Toprak, 2022; Kolac et al., 2018). It is thought that with the increase in the level of education, people gain awareness of health responsibility and their health perceptions are positively affected.

The total PHS mean score and PHS subscales mean scores were found to be higher in women who work and defined their economic status as high. Similarly, in the study conducted by Kucukberber et al. (Kucukberberber et al., 2011), the health perception of those who perceived their income status as safisfactor was high. In the study conducted by Cihangiroglu and Deveci (Cihangiroglu and Deveci, 2011) on university students, it was specified that those who evaluated their economic status as high had more healthy lifestyle behaviours. It is thought that people with higher economic status show positive health behaviours, do not neglect health checks, can spare money for health expenditures and have a higher quality of life. It was determined that PHS importance of health mean score of women who did not apply to gynaecological examination scored lower than those who applied for examination several times a year and when they had complaints. It has been revealed with the results of the studies that people who care about their health gain healthy life behaviours and have check-ups for control purposes within the scope of primary protection (Karakoyunlu Sen and Kılıc Ozturk, 2020; Ersin et al., 2016; Kulakcı Altıntas and Korkmaz Aslan, 2020). A positive and significant relationship was found between the health perceptions of the women participating in the current study and their awareness of gynaecological cancer. According to this result, women with higher health perception also had higher awareness of gynaecological cancer. The study result of Uysal and Unal Toprak (Uysal and Unal Toprak, 2022) also supports this study. Aydın (Aydın, 2019) also found that gynaecological cancer

awareness of people who have acquired healthy lifestyle behaviours were high. Gynaecological cancer awareness of married women participating in the study is higher than that of single women. In the study of Kulakçı Altıntaş and Korkmaz Aslan (Kulakcı Altıntas and Korkmaz Aslan, 2020), no relationship was found between marital status and attitudes towards early diagnosis of cervical cancer. In Aydın's (Aydın, 2019) study, no significant relationship was found between marital status and awareness of gynaecological cancer. Considering the fact that married women visit health institutions more frequently to benefit from family planning services or because of problems related to the reproductive system, they may have received more information about gynaecological cancers from health professionals.

As the level of education increases, women's awareness of gynaecological cancer risks and early diagnosis increases. In the study of Gozuyesil et al. (Gozuyesil et al., 2020), women's awareness of gynaecological cancer risks and early diagnosis increased as the education level rised. In the study of Kaya Senol et al. (Kaya Senol et al., 2021), although there was no significant relationship between education levels and gynaecological cancer awareness scale, it is seen that awareness increased as the education level increased. Apart from all these results, in the study of Kulakcı Altıntas and Korkmaz Aslan (Kulakcı Altıntas and Korkmaz Aslan, 2020), the attitudes of women with undergraduate and graduate education towards early diagnosis of cervical cancer were found to be lower than women with other education levels. Increasing level of education leads to an increase in women's knowledge about the disease, early diagnosis and screening. Women with low level of education should be considered as a priority group and information about gynaecological cancers should be provided for them. Awareness of early diagnosis and information in gynecological cancers among working women and awareness of protection from gynecological cancers among women who defined their economic status as good were found to be higher. The results of other studies also support this results (Gozuyesil et al., 2020; Sahin and Sayın, 2015). The economic privilage provided by working life facilitates access to health services and supports help-seeking behaviour. Gynaecological cancer awareness of the women who did not apply to gynaecological examination was found to be quite low. In the study by Gozuyesil et al. (Gozuyesil et al., 2020), routine follow-up and awareness of serious disease perception in gynecological cancers was found to be higher in those who regularly applied to gynaecological examinations. In Aydın's (Aydın, 2019) study, no significant relationship was found between the frequency of going to gynaecological examination and awareness of gynaecological cancer. Similarly, in the study of Kulakcı Altıntas and Korkmaz Aslan (Kulakcı Altıntas and Korkmaz Aslan, 2020), no relationship was found between applying to a gynaecological examination and the attitude towards early diagnosis of cervical cancer. Even increased knowledge and awareness of gynaecological cancers encourages women to undergo gynaecological examinations and many problems can be easily detected at an early stage by gynaecological examination.

CONCLUSIONS

There is a positive relationship between health perception and awareness of gynaecological cancer and as women's health perception increases, their awareness of gynaecological cancer also increases. Early diagnosis is important to reduce morbidity and mortality rates related to gynaecological cancers. When women are informed about gynaecological cancers and the importance of early diagnosis and their perception of health is tried to be increased, it can be ensured that they have positive attitudes towards screening programmes.

Limitations

The limitations of the study are that it was conducted with women who can use smartphones and computers and the results cannot be generalised to all women in Türkiye.

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Conflict of Interest Statement

The authors declare that there is no conflict of interests.

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