

## Cervical Cancer

# The Relationship between Gynecological Cancer Awareness and Self-Care Agency in Married Women

Nursel Alp Dal<sup>1</sup> K. Derya Beydağ<sup>2</sup> Özlem İkde Öner<sup>3</sup>

<sup>1</sup> Department of Midwifery, Munzur University Faculty of Health Sciences, Tunceli, Turkey

<sup>2</sup> Department of Nursing, İstanbul Gedik University Faculty of Health Sciences, İstanbul, Turkey

<sup>3</sup> Department of Nursing, Firat University Faculty of Health Sciences, Elazığ, Turkey

**Address for correspondence** Nursel Alp Dal, MSN, PhD, Department of Midwifery, Munzur University Faculty of Health Sciences, Tunceli, Turkey  
(e-mail: nurselalpdal@munzur.edu.tr).

South Asian J Cancer 2023;12(1):30–35.

## Abstract



Nursel Alp Dal

## Keywords

- gynecological cancer
- awareness
- self-care
- self-care agency

**Objective** This study was conducted to determine the relationship between gynecological cancer awareness and self-care agency among married women.

**Materials and Methods** This descriptive and cross-sectional study was performed with 819 women who presented to the obstetrics polyclinic of a hospital located in the west of Turkey between December 15, 2020 and April 15, 2021. The data of the study were collected by using the Exercise of Self-Care Agency Scale (ESCA) and the Gynecological Cancers Awareness Scale (GCAS).

**Results** The mean age of the participants was  $37.62 \pm 9.181$  years. The mean ESCA score of the women who participated in this study was  $95.89 \pm 25.060$ , which indicated moderate levels of self-care agency. The mean total GCAS score of the participants of this study was  $156.57 \pm 32.930$ , which indicated high levels of gynecological cancer awareness among the women. As the self-care agency of the women increased, their awareness of gynecological cancers also increased.

**Conclusion** Midwives and nurses who provide preventive and supportive healthcare services may affect the self-care agency of women positively by gynecological cancer awareness they will raise in these women.

## Introduction

After breast cancer, the most frequently observed types of cancer in women are gynecological cancers. While more than 1.3 million cases of gynecological cancer were reported globally, the rate of gynecological cancer cases among all cancers in women in Turkey was stated as 35%.<sup>1</sup> The preventable risk factors of these cancers whose incidence is increas-

ingly higher can be detected with early diagnosis and screening programs, and the related mortality rates can be reduced by 70%.<sup>2</sup> For this reason, in early diagnosis and treatment, it is important to have knowledge and awareness about gynecological cancers.<sup>3,4</sup>

Although cancer awareness in society is not sufficient alone in achieving behavioral change, it is accepted as a significant condition. Additionally, gaining awareness on the

DOI <https://doi.org/10.1055/s-0042-1754344> ISSN 2278-330X

**How to cite this article:** Alp Dal N, Beydağ KD, Öner ÖI The Relationship between Gynecological Cancer Awareness and Self-Care Agency in Married Women. South Asian J Cancer 2023;12(1):30–35.

© 2022. MedIntel Services Pvt Ltd. All rights reserved.

This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial-License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (<https://creativecommons.org/licenses/by-nc-nd/4.0/>)

Thieme Medical and Scientific Publishers Pvt. Ltd., A-12, 2nd Floor, Sector 2, Noida-201301 UP, India

modifiable and unmodifiable factors that lead to cancer plays an important role in mobilizing the behavior of health seeking.<sup>5,6</sup> Awareness and health-seeking behaviors are associated with the self-care concept of individuals. The self-care of individuals involves activities that are started and performed by the individuals themselves to maintain their life, health, and state of wellbeing.<sup>7</sup> Activation of self-care on the international level has become an increasingly accepted concept as a basic component of chronic disease management.<sup>8</sup> Self-care, which is a behavior that is gained by education, is one of the basic human requirements that need to be adopted by individuals. A self-care requirement is “self-awareness,” and when self-care requirements are not met, and care is not sustained, individual and public health is negatively affected.<sup>9</sup>

In the literature, limited numbers of studies that evaluated the gynecological cancer awareness of women were found, and studies conducted with women who had different sociodemographic characteristics have determined that women have gynecological cancer awareness.<sup>1,3</sup> However, no study investigating the relationship between gynecological cancer awareness and self-care was encountered.

The increase in cases of gynecological cancer day by day and the prevalence of mortalities related to these cancers reveal the need for paying the necessary importance to this issue. In addition to preventing gynecological cancers and early diagnosis, it is also important to increase the quality of life of the woman diagnosed with a gynecological cancer and her family.<sup>10</sup>

In this study, it was aimed to determine the relationship between gynecological cancer awareness and self-care agency in married women.

## Method

### Design

This is a descriptive and cross-sectional study.

### Sample

The population of the study consisted of 1,280 women who presented to the obstetrics polyclinic of a hospital in the west of Turkey between December 15, 2020 and April 15, 2021. Our study was completed with 819 married women who were aged 18 or older, able to verbally communicate, did not have a communication barrier that would affect their responses to the questions, and agreed to participate in the study. Women who were over the age of 65 and those who had a diagnosis of a gynecological cancer were excluded. The data of the study were collected by the researchers using the face-to-face interview technique, and responding to the questionnaire took 15 to 20 minutes on average for each participant.

### Data Collection

The data of the study were collected by using a Demographic Information Form, the Exercise of Self-Care Agency Scale (ESCA), and the Gynecological Cancers Awareness Scale (GCAS).

### Demographic Information Form

This form was prepared by the researchers based on the review of the relevant literature, and it consisted of questions on the women's characteristics including age, education status, income status, employment status, family type, number of children, chronic disease status, family history of gynecological cancer, status of gynecological screening, status of having taken a pap smear test, status of being afraid of a gynecological cancer, and thoughts about cancer screening tests.<sup>1,3</sup>

### Exercise of Self-Care Agency Scale

The scale was developed by Kearney and Fleischer (1979) and tested for validity and reliability in Turkish by Nahcivan (1993). The response options to the items in the scale about self-care agency are “not at all like me,” “slightly like me,” “moderately like me,” “generally like me,” and “very much like me,” and each item is scored between 0 and 4 points. The eight items in the scale containing negative statements (3, 6, 9, 13, 19, 22, 26, and 31) are inversely scored. The minimum and maximum possible scores in the scale are 0 and 140. In the scale, total scores of lower than 82 indicate low, scores in the range of 82 to 120 indicate moderate, and scores over 120 indicate high self-care agency levels. Higher scores indicate higher levels of self-care agency. The scale does not have a cutoff score. The Cronbach's  $\alpha$  internal consistency coefficient of the scale was reported as 0.92 in its validity and reliability study.<sup>11</sup> In this study, this value was determined as 0.94.

### Gynecological Cancers Awareness Scale

The scale was developed by Alp Dal and Ertem for married women at the ages of 20 to 65 to assess their awareness levels regarding gynecological cancers. The scale consists of 41 items and four dimensions. The Cronbach's  $\alpha$  coefficient of GCAS was reported as 0.944. Items 20 through 41 of GCAS constitute its “Routine Follow-up and Awareness of Serious Disease Perception in Gynecological Cancers” dimension with the Cronbach's  $\alpha$  coefficient of 0.979. Items 3 through 11 constitute the “Awareness of Gynecological Cancer Risks” dimension with the Cronbach's  $\alpha$  coefficient of 0.843. Items 14 through 19 constitute the “Awareness of Protection from Gynecological Cancers” dimension with the Cronbach's  $\alpha$  coefficient of 0.778. Items 1, 2, 12, and 13 constitute the “Awareness of Early Diagnosis and Information in Gynecological Cancers” with the Cronbach's  $\alpha$  coefficient of 0.708. GCAS is assessed over its total score, and the minimum and maximum possible scores in the scale are 41 and 205. Higher scores indicate higher levels of awareness.<sup>12</sup> In this study, the Cronbach's  $\alpha$  coefficient of the entire scale was found as 0.890.

### Data Analysis

The data were analyzed in the IBM SPSS Statistics 26 package software. As the descriptive statistics, mean and standard deviation are presented for the numerical variables, whereas frequency and percentage are presented for the categorical variables. The relationship between two variables was

interpreted with the Pearson's correlation coefficient, and the level of statistical significance in the analyses was accepted as 0.05.

### Ethical Aspect of the Study

For conducting the study and collecting the data, written permission from the hospital where the study would be conducted and written approval from the Ethics Committee of a university were obtained. Before the study, the women in the sample were informed, their verbal and written consent was received, and social distancing and protective measures necessitated by the ongoing coronavirus disease 2019 (COVID-19) pandemic were complied with in the data collection process. Throughout the study, the researchers followed the principles of the Declaration of Helsinki. It was specified for the participants that they were free to participate or not participate in the study, and they could leave the study at any stage should they want so. They were also informed that their data would be published for scientific purposes without including their identifying information.

### Results

Among the women who participated in this study, 36.4% were in the age group of 31 to 40, where the mean age of the entire sample was  $37.62 \pm 9.181$  years. The education level of 13.1% of the women was primary school, and the durations of the marriages of 33% were 16 years or longer. Of the participants, 63.7% were employed, 80.2% had children, 68% had family income equivalent to their expenses, 19.7% were smokers, and 18.7% had chronic diseases (→Table 1).

There was a history of gynecological cancer in the mothers/aunts of 12.6% of the women. The rate of receiving gynecological cancer examinations for checkup purposes without any specific complaint was 41.8%. Among the participants, 58.9% were getting practices for protection from gynecological cancer performed, 80.2% were afraid of getting a gynecological cancer, and 89.7% thought that cancer screening tests provide early diagnosis and protection (→Table 2).

The mean scores of the participants were  $95.89 \pm 25.060$  in ESCA and  $156.57 \pm 32.930$  in GCAS (→Table 3).

There was a moderate positive statistically significant relationship between the women's ESCA scores and their GCAS scores ( $p < 0.05$ ). The women's ESCA scores were moderately and positively related to their Routine Follow-up and Awareness of Serious Disease Perception in Gynecological Cancers, Awareness of Gynecological Cancer Risks, Awareness of Protection from Gynecological Cancers and Awareness of Early Diagnosis, and Information in Gynecological Cancers dimension scores ( $p < 0.05$ ) (→Table 4).

### Discussion

Self-care agency is the combination of elements of action and power that determine the self-care performance of the individual regarding the continuation and strengthening of their health. It is the complex, acquired capacity of the

**Table 1** Distribution of demographic characteristics

Variables	n	%
<b>The average age</b> $37.62 \pm 9.181$ (min: 18, max: 65)		
18–30 yr	212	25.9
31–40 yr	298	36.4
41–50 yr	241	29.4
51–67 yr	68	8.3
<b>Education status</b>		
Literate/primary school	107	13.1
Secondary school/high school	140	17.1
University or higher	572	69.8
<b>Duration of marriage</b>		
1 mo–5 yr	253	30.9
6–10 yr	158	19.3
11–15 yr	138	16.8
16 yr or longer	270	33.0
<b>Employment status</b>		
Employed	522	63.7
Not employed	297	36.3
<b>Has children</b>		
Yes	657	80.2
No	162	19.8
<b>Family income level</b>		
Income less than expenses	110	13.4
Income equivalent to expenses	557	68.0
Income more than expenses	152	18.6
<b>Smoking status</b>		
Smoker	161	19.7
Nonsmoker	658	80.3
<b>Has a chronic disease</b>		
Yes	153	18.7
No	666	81.3

individual that allows the individual to organize and improve their living process for meeting their constant care needs.<sup>13</sup> Gynecological cancer awareness refers to educating women in terms of how they can reduce cancer risk and facilitating their early steps toward diagnosis and treatment.<sup>3</sup> Awareness is one of the significant factors that are important in protection from gynecological cancers that may be encountered by women within their lifetime. With this study, it was observed that gynecological cancer awareness was a concept that was associated with the self-care agency of the individual.

The rate of receiving gynecological cancer examinations for checkup purposes without any specific complaint was 41.8%. Among the participants, 58.9% were getting practices for protection from gynecological cancer performed, and

**Table 2** Distribution of characteristics related to gynecological cancer

Variables	n	%
History/presence of gynecological cancer in her mother/aunt		
Yes	103	12.6
No	716	87.4
Status of getting gynecological examination for checkup without any specific complaint		
Yes	342	41.8
No	477	58.2
Status of getting practices for protection from gynecological cancer performed		
Yes	482	58.9
No	337	41.1
Status of being afraid of getting a gynecological cancer		
Afraid	657	80.2
Not afraid	162	19.8
Status of thinking that cancer screening tests provide early diagnosis and protection		
Thinks so	735	89.7
Does not think so	19	2.3
Undecided	65	7.9

80.2% were afraid of getting a gynecological cancer (→ **Table 2**). These results show that women's practices for early diagnosis of gynecological cancer are not at the desired level. Similar to the study finding, in one study, 37.5% stated that they sought gynecologic examination only when their problem became unbearable and 26.6% said to do so when they had a complaint. It was determined that 64.1% of the subjects did not undergo gynecologic examination on a regular basis.<sup>14</sup> Another study conducted with 966 women, reasons for admission as a gynecology outpatient were listed as 36.5% checkup request, 19.5% complaint of discharge, and 15.7% menstrual disorders.<sup>15</sup> In another study, it was stated that less than 50% of women knew about protective practices against gynecological cancer.<sup>16</sup> It is seen that women do not develop a habit of regular gynecologic examination and literature supports this finding with the suggestions that women avoid gynecologic examination before they have serious problems, because of the negative attitudes of healthcare professionals or unfavorable circumstances.

The mean ESCA score of the women who participated in this study was  $95.89 \pm 25.060$ , which indicated moderate levels of self-care agency (→ **Table 3**). In a study that was conducted with gynecological cancer patients as opposed to the sample in our study, the mean ESCA score of the participants was found as  $111.6 \pm 33.0$  that, like in our study,

**Table 3** Statistics for the ESCA and the GCAS

	X	SD	Min.–Max.
ESCA	95.89	25.060	0–140
GCAS	156.57	32.930	41–205
Routine Follow-Up and Awareness of Serious Disease Perception in Gynecological Cancers	87.35	20.142	22–110
Awareness of Gynecological Cancer Risks	29.79	8.101	9–45
Awareness of Protection from Gynecological Cancers	22.2	5.578	6–30
Awareness of Early Diagnosis and Information in Gynecological Cancers	17.24	3.752	4–20

Abbreviations: ESCA, Exercise of Self-Care Agency Scale; GCAS, Gynecological Cancers Awareness Scale; SD, standard deviation.

also indicated moderate levels of self-care agency.<sup>17</sup> A study performed with Iranian cancer patients revealed high levels of self-care agency ( $131.72 \pm 12.45$ ) among the participants.<sup>18</sup> Another study involving cervical cancer patients reported moderate levels of self-care agency ( $91.94 \pm 14.95$ ) among the cervical cancer patients included in the control group.<sup>19</sup> The differences between the results of different studies may have been caused by differences in the characteristics of samples.

The first step in preventing gynecological cancers in women is creating awareness.<sup>20</sup> The mean total GCAS score of the participants of this study was  $156.57 \pm 32.930$  (→ **Table 3**), which indicated high levels of gynecological cancer awareness among the women. Gözüyeşil et al<sup>1</sup> and Kaya Şenol et al<sup>21</sup> found the mean total gynecological cancer awareness score of women as 153. Another study reported the same score as  $157.05 \pm 21.42$  for academic personnel,  $150.94 \pm 27.28$  for administrative personnel, and  $159.96 \pm 24.27$  for healthcare personnel.<sup>3</sup> In their study conducted to examine gynecological cancer awareness and healthy lifestyle behaviors among menopausal women, Aydın<sup>22</sup> reported the mean total GCAS score of their participants as  $161.44 \pm 15.89$ . In their study conducted with married women, Erenoğlu and Bayraktar<sup>23</sup> determined the mean score of the participants as 157.54. In a study performed with lesbian/bisexual women, while the mean gynecological cancer awareness level of the women was found as  $143.25 \pm 16.4$  before the education program that was applied in the study, this score significantly increased to  $177.03 \pm 17.4$  in the first month after the program and  $180.84 \pm 19.3$  in the third month.<sup>24</sup> Özcan and Doğan<sup>2</sup> reported the mean GCAS scores in their study as  $150.53 \pm 18.26$ , whereas Teskereci et al<sup>25</sup> found it as  $151.08 \pm 3.84$ ; Atlas<sup>26</sup> found it as  $160.31 \pm 22.42$ , and Öz<sup>27</sup> found it as  $156.3 \pm 13.81$  in their study on women without a history of gynecological cancer.

Gynecological cancers, which threaten the lives of women, may be prevented with awareness to be raised on the issues of causes, symptoms, screening, protection and early diagnosis, and the self-care agency levels of women may be increased.<sup>28</sup> This is because self-care is a highly important concept for protection of individuals from disease, as well as the continuation and improvement of their health.<sup>29</sup> In this study, a moderate positive significant relationship was identified between the ESCA scores of the participants and their GCAS scores. The participants' ESCA scores were moderately and positively related to their Routine Follow-Up and Awareness of Serious Disease Perception in Gynecological Cancers, Awareness of Gynecological Cancer Risks, Awareness of Protection from Gynecological Cancers, and Awareness of Early Diagnosis and Information in Gynecological Cancers dimension scores (→Table 4). In a study that was performed to investigate the effects of illness perception on self-care agency in gynecological cancer patients, a significant relationship was found between the Brief Illness Perception Questionnaire scores and the Exercise of Self-Care Agency scores of the patients.<sup>17</sup> An experimental study conducted with breast cancer patients revealed that the self-care agency scores of the participants increased after education on health information.<sup>29</sup> In Aydın's<sup>22</sup> study on menopausal women, it was determined that, as gynecological cancer awareness increased, healthy lifestyle behaviors became better. It was reported that, as the gynecological cancer awareness levels of lesbian and bisexual women increased, their healthy lifestyle behaviors became more positive.<sup>24</sup>

The finding that the gynecological cancer awareness levels and self-care agency levels of the participants were related was an expected result. Midwives and nurses who provide preventive and supportive healthcare services may affect the self-care agency of women positively by gynecological cancer awareness they will raise in these women.

**Table 4** Relationship between the ESCA and GCAS

		ESCA
GCAS	<i>r</i>	0.510 <sup>a</sup>
	<i>p</i>	0.000
Routine Follow-Up and Awareness of Serious Disease Perception in Gynecological Cancers	<i>r</i>	0.489 <sup>a</sup>
	<i>p</i>	0.000
Awareness of Gynecological Cancer Risks	<i>r</i>	0.336 <sup>a</sup>
	<i>p</i>	0.000
Awareness of Protection from Gynecological Cancers	<i>r</i>	0.483 <sup>a</sup>
	<i>p</i>	0.000
Awareness of Early Diagnosis and Information in Gynecological Cancers	<i>r</i>	0.410 <sup>a</sup>
	<i>p</i>	0.000

Abbreviations: ESCA, Exercise of Self-Care Agency Scale; GCAS, Gynecological Cancers Awareness Scale.

*r*, Pearson's correlation coefficient.

<sup>a</sup>*p* < 0.001.

## Conclusion and Recommendations

As a result of this study, it was observed that there was a moderate, positive, and statistically significant relationship between the self-care agency and gynecological cancer awareness levels of the women. It is recommended to conduct further studies for not only raising awareness in terms of prevention of gynecological cancers that negatively affect the lives of women but also increasing self-care agency.

## Limitations and Strengths

A strong aspect of this study is that it is the first study in the literature that examined self-care agency and gynecological cancer awareness. Reduced numbers of patients at hospitals and the desire of patients to keep their hospital visits short due to the ongoing COVID-19 pandemic also affected the number of women who were included in this study. Other limitations of this study were that it was conducted at a single center, and the results obtained from the questions included on the data collection instruments were based on the self-reports of the women.

### Summary of the Main Findings

As the self-care agency of the women increased, their awareness of gynecological cancers also increased.

### Conflict of Interest

None declared.

## References

- Gözüyeşil E, Düzgün AA, Taş F Evaluation of gynecological cancer awareness of women's applying for a family health center. *Turkish J Fam Med Primary Care* 2020;14(02):177–185
- Özcan H, Doğan MD. Gynecological cancer awareness among women. *Ind J Gynecol Oncol* 2021;19(13):2–9
- Alp Dal N, Akkuzu G, Çetinkaya Şen Y. Investigation of gynecological cancer awareness of Ufuk University women's employees. *Ebelik ve Sağlık Bilimleri Dergisi* 2020;3(02):91–99
- Fonnes T, Telle IO, Forsse D, et al. Cancer awareness in the general population varies with sex, age and media coverage: a population-based survey with focus on gynecologic cancers. *Eur J Obstet Gynecol Reprod Biol* 2021;256:25–31
- Coşkun S. Cancer awareness measure mythical causes scale (Cam-Mycs): validity and reliability of the Turkish Version. *ESTÜDAM Halk Sağlığı Dergisi* 2020;5(03):430–442
- Teskereci G, Arslan ÜÖ, Öncel S. The awareness levels of women for gynaecologic cancer in Turkey: a cross-sectional study. *Int J Gynaecol Obstet* 2021;00:1–7
- Altıparmak S, Fadiloğlu Ç, Gürsoy ŞT, Altıparmak O. The relationship between quality of life and self-care agency in chemotherapy treated lung cancer patients. *Ege Tıp Dergisi* 2011;50(02):95–102
- O'Regan P, McCarthy G, O'Reilly S, et al. Cancer-related fatigue and self-care agency: a multicentre survey of patients receiving chemotherapy. *J Clin Nurs* 2019;28(23-24):4424–4433
- Webber D, Guo Z, Mann S. Self-care in health: we can define it, but should we also measure it? *SelfCare* 2013;4(05):101–106
- Eker A, Aslan E. Psychosocial approach in gynecological cancer patients. *Hemşirelikte Eğitim ve Araştırma Dergisi* 2017;14(04):298–303
- Nahcivan N, Tuncel N. The effect of self-care power and family environment in healthy youth. *Hemşirelik Bülteni* 1999;12:49–60



- 12 Alp Dal N, Ertem G. Gynecological cancer awareness scale development study. *Human Soc Sci Res J* 2017;6(05):2351–2358
- 13 Hartweg D. Dorothea Orem: Self-Care Deficit Theory, vol 4. Thousand Oaks: Sage Publications; 1991
- 14 Kani S, Bekar M. Factors affecting women's approach to gynecologic examination for cancer prevention. *Int J Caring Sci* 2020;13(01):517–526
- 15 Aydın DS, Ekmez M, Göksedef BP, Hasanova M, Aşık H, Çetin A. Awareness and frequency of smears in women admitted to the outpatient clinic. *Turk J Gynecolo Oncol* 2015;18(04):127–130
- 16 Thapa M. Cervical cancer awareness and practice of pap smear test among women with gynecological problems. *JNMA J Nepal Med Assoc* 2018;56(211):654–657
- 17 Küçükkaya B, Erçel Ö The effect of disease perception on self-care power in gynecologic cancer patients. *J Ege Uni Nurs Facul* 2019;35(03):137–145
- 18 Goudarzian AH, Boyle C, Beik S, et al. Self-care in Iranian cancer patients: the role of religious coping. *J Relig Health* 2019;58(01):259–270
- 19 Castro EKD, Peuker AC, Lawrenz P, Figueiras MJ. Illness perception, knowledge and self-care about cervical cancer. *Psicol Reflex Crit* 2015;28(03):483–489
- 20 Eroğlu K, Koç G Gynecological cancer control and nursing. *Hacettepe Üniversitesi Hemşirelik Fakültesi Dergisi*; 2014:77–90
- 21 Kaya Şenol D, Polat F, Doğan M. Gynecological cancer awareness: reproductive age and postmenopausal women. *Turkish J Fam Med Prim Care* 2021;15(01):56–62
- 22 Aydın M. Gynecological cancer awareness and healthy lifestyle behaviors in menopausal women. Master's Thesis İstanbul Üniversitesi-Cerrahpaşa; 2020
- 23 Erenoğlu R, Bayraktar E. Awareness levels of married women aged 20–60 years about gynaecological cancer and the affecting factors. *Int J Caring Sci* 2020;13(01):457–469
- 24 Başoğlu M. The effect of education on female cancers on gynecological cancer awareness and healthy lifestyle behaviors in lesbian or bisexual women. Master's Thesis Dokuz Eylül University; 2020
- 25 Teskereci G, Öncel S, Arslan ÜÖ Evaluation of the women attending vocational courses in terms of risk factors and early warning signs related to gynaecological cancers. *STED/Sürekli Tıp Eğitimi Dergisi* 2020;29(04):229–238
- 26 Atlas B. Gynecological cancer awareness for women applying to Çiğli Regional Training Hospital. Master's Thesis. Ege University; 2020
- 27 Öz S. Gynecological cancer awareness of women aged 20 years and over and the factors effecting the situation. Master's Thesis. Işinye University; 2021
- 28 Açıkgöz A, Çehreli R, Ellidokuz H. Women's knowledge and attitude about cancer and the behaviour for early diagnosis procedures. *Dokuz Eylül Üniversitesi Tıp Fakültesi Dergisi* 2011;25(03):145–154
- 29 Latifi M, Alishan Karami N, Beiraghdar M, Maraki F, Allahbakhshian Farsani L. Impact of health information prescription on self-care of women with breast cancer. *Adv Biomed Res* 2018;7:139