

ORIGINAL ARTICLE / ORJİNAL MAKALE

The Effect of Social Support Perception on Attitude Towards Early Diagnosis of Cervical Cancer in Orthopedically Disabled Women

Ortopedik Engelli Kadınlarda Sosyal Destek Algısının Serviks Kanserinin Erken Teşhisine Yönelik Tutumu Üzerine Etkisi

 Sidar Gül¹  Ayşegül Kılıçlı²

¹ Assistant Prof., Phd, Midwifery Department, Faculty of Health Sciences, Siirt University, Siirt City, Türkiye,

² Assistant Prof., Phd, Nursing Department, Faculty of Health Sciences, Mus Alparslan University, Mus, Türkiye,

Geliş: 08.12.2023, Kabul: 07.08.2025

Abstract

Background: One of the important factors affecting cervical cancer prevention behaviours of orthopedically disabled women is the perception of social support.

Objectives: This study was conducted to examine the effect of social support perception on the attitude towards early diagnosis of cervical cancer in orthopedically disabled women.

Methods: The study, which was designed to be descriptive was carried out with 105 disabled women. The study was conducted with orthopedically disabled woman who were treatmented to the physical therapy and rehabilitation unit of a training and research hospital between March-December 2022. A descriptive information form, Attitude towards Early Diagnosis of Cervical Cancer Scale, and Multidimensional Perceived Social Support Scale were used to collect data. Descriptive statistical methods (mean, standard deviation), pearson correlation for relationship analysis, and linear regression analysis for effect level analysis were used in data analysis.

Results: The mean scores of Attitude towards Early Diagnosis of Cervical Cancer Scale was determined as 77.16±12.42 and the mean scores of Multidimensional Perceived Social Support Scale was 46.77±7.40. The effect of the perceived social support was found to be effective in increasing the attitude towards early diagnosis of cervical cancer (p = .001). The total perceived social support score explained 41.6% of the total variance in the dependent variable of attitude towards early diagnosis of cervical cancer.

Conclusion: Orthopedically disabled women with poor perceived social support had more negative attitudes towards cervical cancer screening. Therefore, health professionals should be aware of orthopedically disabled women's social support and attitudes towards cancer when planning information and promotion programmes to promote attendance at screening cancer.

Keywords: Disabled Women, Early Diagnosis, Cervical Cancer, Social Support.

Sorumlu Yazar: Sidar GÜL, Associate Professor, Phd, Midwifery Department, Faculty of Health Sciences, Siirt University, Siirt, Türkiye. **Email:** sidaraytekin@gmail.com, **Tel:** (90) 541 432 37 40

Nasıl Atf Yapılır: Gül S, Kılıçlı A, The Effect of Social Support Perception on Attitude Towards Early Diagnosis of Cervical Cancer in Orthopedically Disabled Women. Etkili Hemşirelik Dergisi. 2025;18(4): 606-617

Journal of Nursing Effect published by Cetus Publishing.



Journal of Nursing Effect 2025 Open Access. This article is distributed under the terms of the Creative Commons Attribution 4.0 International License

Öz

Giriş: Ortopedik engelli kadınların serviks kanserinden korunma davranışlarını etkileyen önemli faktörlerden biri sosyal destek algısıdır.

Amaç: Bu araştırma, ortopedik engelli kadınlarda sosyal destek algısının serviks kanserinin erken teşhisine yönelik tutumu üzerine etkisini incelemek amacıyla yapılmıştır.

Yöntem: Tanımlayıcı olarak tasarlanan çalışma 105 engelli kadın ile yürütülmüştür. Çalışma, Mart-Aralık 2022 tarihleri arasında bir eğitim ve araştırma hastanesinin fizik tedavi ve rehabilitasyon ünitesinde tedavi gören ortopedik engelli kadınlarla yürütülmüştür. Veri toplamak için tanımlayıcı bilgi formu, Serviks Kanseri Erken Teşhisine Yönelik Tutum Ölçeği ve Çok Boyutlu Algılanan Sosyal Destek Ölçeği kullanılmıştır. Verilerin analizinde tanımlayıcı istatistiksel yöntemler (ortalama, standart sapma), ilişki analizi için pearson korelasyon, etki düzeyi analizi için linear regresyon analizi kullanılmıştır.

Bulgular: Serviks Kanserinde Erken Tanıya Yönelik Tutum Ölçeği puan ortalaması 77.16 ± 12.42 ve Çok Boyutlu Algılanan Sosyal Destek Ölçeği puan ortalaması 46.77 ± 7.40 olarak belirlenmiştir. Algılanan sosyal desteğin serviks kanserinin erken tanısına yönelik tutumu artırmada etkili olduğu bulunmuştur ($p = .001$). Toplam algılanan sosyal destek puanı, serviks kanserinin erken tanısına yönelik tutum bağımlı değişkenindeki toplam varyansın %41,6'sını açıklamaktadır.

Sonuç: Algılanan sosyal desteği zayıf olan ortopedik engelli kadınların serviks kanseri taramasına yönelik tutumları daha olumsuzdur. Bu nedenle, sağlık profesyonelleri kanser taramalarına katılımı teşvik etmek için bilgilendirme ve tanıtım programları planlarken ortopedik engelli kadınların sosyal desteklerinin ve kansere yönelik tutumlarının farkında olmalıdır.

Anahtar Kelimeler: Engelli Kadınlar, Erken Tanı, Serviks Kanseri, Sosyal Destek.

INTRODUCTION

Cervical cancer is the commonest type of gynaecological cancer in women and is estimated to be the leading cause of cancer deaths globally. According to the World Health Organization (WHO), there were an estimated 604,000 incidences and 342,000 fatal cases in 2020. In 2020, about 90% of deaths from cervical cancer occur in low- and middle-income countries (WHO, 2022). Women with disabilities, who are a more specialised group among women, have more difficult access to preventive health services due to their restricted participation in social life (Hunt et al., 2017). According to WHO, it is estimated that 1.3 billion individuals globally have a serious disability. This is about 16% of the global population or about one in six people. It is known that the majority of this group is orthopedically disabled (WHO, 2023).

In Turkey, 16.2% of the population is experience both a long-standing health condition and difficulty with basic activities and 13.7% of this group is orthopedically disabled (Republic of Turkey, 2023). These rates show that there are a considerable number of orthopedically disabled people.

It is becoming increasingly difficult for women with disabilities, who experience social exclusion and are in disadvantaged positions, to access health services. Delay in access to health services by women with disabilities leads to increased morbidity and mortality rates, especially in early diagnosed diseases. There are many factors affecting early diagnosis behaviour in cervical cancer. These factors are structural and behavioural factors such as education level, economic status, health insurance, social support from family and environment (Edwards,

Sakellariou & Anstey, 2020; Steuperaert & Michielsen, 2022; Ramjan, Cotton, Algosio & Peters, 2016). International literature on the subject is analyzed; Choi et al. conducted a study (2021) in Korea and found that disabled women with cervical cancer were diagnosed at later stages, received less treatment, and had higher mortality rates compared to non-disabled patients. The same study emphasized that women with disabilities need social support (Choi et al., 2021). Shin et al. conducted a study (2021) in South Korea that reported that women with disabilities seeking help for basic needs lacked cervical cancer screening (Kuroki et al., 2021). Analyzing the studies conducted at the national level, Kilic, Tastan, Guvenc & Akyuz reported that (2019) in Turkey, the participation of women with disabilities in cervical cancer screening was low. They generally did not participate in cervical cancer screening because they were dependent on others for help (Kilic, Tastan, Guvenc & Akyuz, 2019). In addition, inequitable conditions, these include the impact of discrimination, stigma, financial poverty, exclusion from the educational and employment system and barriers encountered within the health care system itself, increase health inequalities in terms of early detection behaviours of cervical cancer (WHO, 2022).

The global initiative to eliminate cervical cancer as a public health problem by 2020, agreed by the World Health Assembly, proposes a comprehensive approach to the prevention and control of cervical cancer (WHO, 2020). The proposed actions include lifelong interventions for the prevention and early detection of cervical cancer. It is essential to be aware of the social support that women with disabilities receive when planning health services and training to be provided as part of cervical cancer preventative, screening and early diagnosis programmes (Choi

et al., 2021). Therefore, the purpose of the present study was to investigate the effect of social support perception on the attitude towards early diagnosis of cervical cancer in orthopedically disabled women. In line with this aim, answers to the following specific questions were sought:

1. How is the attitudes towards early diagnosis of cervical cancer of orthopedically disabled women?
2. What is the level of social support perception of orthopedically disabled women?
3. Is there a relationship between perceived social support and attitude towards early diagnosis of cervical cancer?
4. What is the effect of perceived social support on the attitude towards early diagnosis of cervical cancer?

METHODS

Type of Research

This study was carried out as a descriptive design.

Place and Duration of Research

The study was conducted with orthopedically disabled woman who were treatmented to the physical therapy and rehabilitation unit of a training and research hospital between March-December 2022.

Universe and Sample

The universe of the study involved 250 orthopedically disabled women who registered at the hospital's physiotherapy and rehabilitation department. A convenience sample of 105 orthopedically disabled women who met the inclusion criteria was recruited. Eligibility criteria included having an orthopaedic disability, being aged between 21 and 65 years (as part of the cervical cancer screening programme - national guidelines), had experienced sexual intercourse, being literate in Turkish and consenting to

participate in the study. Excluded from the study were participants who had hysterectomy with cervix removal or cervical cancer and who diagnosed with any psychiatric disorders. The post hoc power analysis of the research was calculated using G* Power 3.1.9.7 programme (Faul, Erdfelder, Lang & Buchner, 2007). As a result of the calculation performed using the research data with a total sample size of 105, the correlation value of the research was calculated as .785 and the power of the research was calculated as $(1-\beta)$.99 with a 5% margin of error ($\alpha=.05$) for correlation analysis.

Data Collection Instrument-Validity and Reliability Information

Measures included a descriptive information form, the Attitude towards Early Diagnosis of Cervical Cancer Scale (AEDCCS), and Multidimensional Perceived Social Support Scale (MPSSS).

Descriptive Information Form

This form, designed by the researchers in accordance with the literature (Edwards et al., 2020; Gözüyeşil, Ariöz Düzgün & Ünal Aslan, 2019; Mongsawaeng et al., 2016). Includes information about the participants' sociodemographic characteristics, disability characteristics, and knowledge about cervical cancer. The form consisted of 15 questions.

Attitude towards Early Diagnosis of Cervical Cancer Scale

Özmen and Özsoy was developed and structured the scale to investigate the four sub-dimensions of the Health Belief Model (Özmen & Özsoy, 2009). In the scale, nine items for "Perceived Sensitivity" sub-dimension, eight items for "Perceived Seriousness" sub-dimension, seven items for "Perceived Obstacles" sub-dimension, six items for "Perceived Benefit" sub-dimension.

Of the 30 items in the 5-point Likert-type scale, 22 are positive and eight are negative (questions numbered 3, 6, 8, 15, 17, 24, 25 and 27). The lowest score is 30 and the highest score is 150. High scores on the scale indicate that the person has a positive awareness of cervical cancer screening. Özmen and Özsoy reported (2009) that the Cronbach's alpha coefficient of the scale was calculated to be .89, and in the present study the, Cronbach's alpha coefficient was calculated to be .89.

Multidimensional Perceived Social Support Scale

Eker & Aslan conducted validity and reliability tests on the scale developed by Zimet et al. (Eker & Aslan, 2017; Zimet, Dahlem, Zimet & Farley, 1988). The 7-point Likert-type scale comprises 12 items and three sub-dimensions (family, friends, and a special person). Each item can be given a minimum score of 1 and a maximum score of 7. The higher the score for each item, the higher the perceived social support. Eker & Aslan reported that (2017) the Cronbach's alpha coefficient of the scale was .89, and in this study, the Cronbach's alpha coefficient was determined to be .93.

Data Collection

Before giving the questionnaires to the respondents, the purpose of the research had been explained and written consent had been obtained from the respondents who had volunteered to take part in the study. Participants were provided with the questionnaire and filled in individually. It took approximately 15-20 minutes for the participants to fill out the forms.

Evaluation of Data

The Statistical Package for Social Science (SPSS) 22 was used to analyse the data (IBM, Armonk, NY, USA). Number, percentile, mean

(\bar{X}), and standard deviation (SD) were used. The Pearson Correlation test was used to comparison scale scores. Linear regression analysis was used to analyze the relationship of the total AEDCCS scores with the total MPSSS score. The statistical significance level was determined as $p < .05$, and the 95% confidence interval level was accepted.

Ethical Aspect of the Research

The present study was carried out in the context of the Declaration of Helsinki. The ethics permission was granted by the Ethics Committee for Non-Interventional Clinical Research (date of application: 5/01/2022, date of approval: 18/02/2022, and number: 2167), and written permission was obtained from the Provincial Health Directorate (Approval date: 25/02/2022, and number: E-52487384-424.97). Written informed agreement was provided by the study participants.

RESULTS

The mean age of the participants was 42.8 ± 12.10 years, and their mean age of first sexual intercourse was 28.4 ± 3.8 years. 49.5% had children mean number of children 2.5 ± 1 (Minimum: 1- Maximum: 4). 68.5% of the participants were primary school graduates,

84.7% of the participants were not employed, and 61.9% had a low level of economic status perception. The characteristics of the disability status of the participants showed that 66.6% of them became disabled later in life, and 40.3% of them had a disability for 25 years or more. 53.3% of the participants use an assistive device, and the most common assistive device is a wheelchair (80.0%).

69.5% of the participants were not informed about the cervical cancer. 72.3% of participants had not undergone a Pap smear test. 76.1% of the participants were not informed about HPV vaccine and only 4.7% of them had been vaccinated with HPV vaccine.

The mean AEDCCS score of the participants was 77.16 ± 12.42 , while the mean MPSSS score was 50.30 ± 14.28 (Table 1).

There was a statistically significant, positive, and high-strength relationship between participants' AEDCCS total scores and the MPSSS total ($r = .785$, $p = .001$), family ($r = .812$, $p = .005$), friends ($r = .723$, $p = .013$), and a special person ($r = .782$, $p = .030$) sub-dimension scores. There was a statistically significant, positive, and high-strength relationship between participants'

Table 1. The Distribution of Total and Sub-dimension Values of Participants' the AEDCCS and MPSSS

Scales and sub-dimensions	Number of item	Score range	Mean \pm SD*	Min. – Max.**
Total AEDCCS	30	30-150	77.16 \pm 12.42	40-105
Perceived Sensitivity	9	9-45	23.14 \pm 3.16	15-40
Perceived Seriousness	8	8-40	21.41 \pm 4.12	18-35
Perceived Obstacles	7	7-35	20.25 \pm 3.28	15-28
Perceived Benefits	6	6-30	12.36 \pm 3.47	9 -20
Total MPSSS	12	12-84	50.30 \pm 14.28	24-78
Family	4	4-28	23.45 \pm 8.75	11-26
Friends	4	4-28	12.53 \pm 4.16	9-28
A special person	4	4-28	14.32 \pm 5.75	9-23

MPSSS: Multidimensional Perceived Social Support Scale

AEDCCS: Attitude towards Early Diagnosis of Cervical Cancer Scale

*Standart deviation, **Min-Max: Minimum- Maximum

perceived sensitivity sub-dimension scores and the MPSSS total ($r = .756, p = .001$), family ($r = .803, p = .003$), friends ($r = .721, p = .043$), and a special person ($r = .762, p = .038$) sub-dimension scores. There was a statistically significant, positive, and high-strength relationship between participants' perceived benefit sub-dimension scores and the MPSSS total ($r = .781, p = .001$), family ($r = .793, p = .001$), friends ($r = .735, p = .012$), and a special person ($r = .781, p = .021$) sub-dimension scores. There was a statistically significant, negative, and high-strength relationship between participants' perceived obstacles sub-dimension scores and the MPSSS total ($r = -.743, p = .001$), family ($r = -.832, p = .002$), friends ($r = -.751, p = .021$), and a special person ($r = -.798, p = .012$) sub-

variance in the dependent variable of the total AEDCCS score, and this result was found to be

Table 3. The Effect of the Total MPSSS on the Total AEDCCS

Scale	Total AEDCCS			
	B*	SD**	B***	p
Total MPSSS	.708	1.520	.718	.001
R: .645 R ² : .416 Adj. R ² : .414 p = .001				

MPSSS: Multidimensional Perceived Social Support Scale
 AEDCCS: Attitude towards Early Diagnosis of Cervical Cancer Scale
 *Coefficient B; **Standard deviation; ***Standardized beta coefficient; ****Confidence interval of 95%; R²: R-squared; Adj. R²: Adjusted R-squared

Table 2. The Relationship Between Values Of Participants' the AEDCCS and the MPSSS

MPSSS		Perceived Sensitivity	Perceived Seriousness	Perceived Obstacles	Perceived Benefits	Total AEDCCS
Family	r*	.803	.16	-.832	.793	.812
	p	.003	.22	.002	.001	.005
Friends	r*	.721	.117	-.751	.735	.723
	p	.043	.35	.021	.012	.013
A special person	r*	.762	.215	-.798	.781	.782
	p	.038	.61	.012	.021	.030
Total MPSSS	r*	.756	.036	-.743	.781	.785
	p	.001	.08	.001	.001	.001

MPSSS: Multidimensional Perceived Social Support Scale
 AEDCCS: Attitude towards Early Diagnosis of Cervical Cancer Scale
 *Pearson's correlation coefficient

dimension scores (Table 2).

Table 3 shows the regression analysis between the total AEDCCS score as the dependent variable and the total MPSSS score as the independent variable. A one-unit increase in the MPSSS total score increased the AEDCCS total score by a factor of 0.71 ($\beta = .718, p = .001$). The total MPSSS score explained 41.6% of the total

statistically significant ($p = .001$) (Table 3).

DISCUSSION

In the present study, which was conducted to examine the relationship between perceptions of social support and attitudes towards early diagnosis of cervical cancer in women with orthopedic disabilities, two main findings were discussed in line with the literature. Firstly,

it was determined that the mean scores of the attitude scale towards early diagnosis of cervical cancer and the multidimensional perceived social support scale of orthopedically disabled women were at a moderate level. Secondly, it was determined that social support positively affected women's attitudes towards early diagnosis of cervical cancer, and as the social support perceived by family, friends, and a special person increased, the perceived sensitivity and benefit towards early diagnosis of cervical cancer increased, and the perceived barrier decreased.

In the present study, it was determined that the mean scores of the attitude scale towards early diagnosis of cervical cancer of women with orthopedic disabilities were at a moderate level. When the literature was examined, it was reported that the evaluation of attitudes towards early diagnosis of cervical cancer was primarily performed on healthy individuals without any disability, and the attitudes of women were reported to be at a moderate level. The mean total AEDCCS scores were 72.24 ± 8.36 in the study of Durmaz et al. (2021), 95.3 ± 18.6 in the study of Duru & Topatan (2023), 77.49 ± 11.2 in the study of Gözüyeşil et al. (2019) (Durmaz, Özdemir, Adana & Kurt, 2021; Duru & Topatan, 2023; Gözüyeşil et al., 2019). Also, one study reported that 68.2% of women had moderate attitudes (Mongsawaeng et al., 2016). The findings of this study are similar to the literature, and it should be ensured that individuals with any disability should be prioritized in screening as well as healthy individuals in the society for early diagnosis of cervical cancer, and women with disabilities should also benefit from screening services by raising social awareness on this issue. In addition, although the results of the study are similar to the literature, there may be

different reasons for the low awareness of early diagnosis behavior of cervical cancer due to the disability status of the participants.

With the increase in perceived sensitivity in the individual, the possibility of performing healthy behaviors also increases (Prestwich, Kenworthy & Conner, 2024; Ahmed, Yakout & Tosson, 2022). In this study, it was found that the mean perceived sensitivity score of orthopedically disabled women was at a moderate level. Similar to the present study, Yeşildağ & Yılmaz reported that (2023) the mean perceived susceptibility score in the study was $24.68 \pm 8.363.45$. It was also determined that 72.3% of the women did not have a pap test in the present study. In our country, the rate of women having Pap tests varies between 24.8% and 66.1% (Bakan, Aslan & Yıldız, 2021; Turkish Ministry of Health, 2021). Ahmed et al. reported that (2022) health protective education given to women increased perceived sensitivity. In the study, it was determined that the sensitivity perceptions of women with orthopedic disabilities were not at the desired level. This situation also reduced the likelihood of performing early diagnosis behaviors. It is very important in terms of public health to continue training and counseling services that increase sensitivity towards early diagnosis behaviors in disadvantaged groups and to plan screenings in a way to prioritize these groups.

The perception of seriousness includes the evaluation of both medical and clinical consequences of a disease (Prestwich et al., 2024). In this study, it was determined that the seriousness perceived by women with orthopedic disabilities was at a moderate level. In addition, the majority of women did not have sufficient information about HPV vaccine, and 4.7% of those who had information had the HPV vaccine.

Duru & Topatan (2023) reported the average perceived seriousness of women regarding early diagnosis of cervical cancer as 20.20 ± 4.11 , which is at a moderate level. It is necessary to raise awareness on this issue by targeting all segments of the society in educational planning for early diagnosis behaviors of cervical cancer.

In the present study, the obstacle perceived by women with orthopedic disabilities towards early diagnosis behaviors of cervical cancer was at a moderate level. Similarly, the mean perceived obstacle scores were 21.0 ± 3.0 in the study of Gözüyeşil et al. (2019) and 22.7 ± 7.1 in the study of Duru and Topatan (2023) (Gözüyeşil et al., 2019; Duru & Topatan, 2023). Huhmann reported that (2020) sociocultural structure, religious and cultural health beliefs such as fatalism may constitute an obstacle to early diagnosis behavior. Duru & Topatan reported that (2023) fatalism is an important barrier in screening. These results show that women with orthopedic disabilities face many difficulties in accessing preventive and rehabilitative health services, and that they should be provided access to preventive services to eliminate the barrier they perceive for early diagnosis behaviors of cervical cancer and benefit from their health rights adequately like other individuals.

Perceived benefit is the belief that the person can prevent the disease when she performs the behavioral change (Prestwich et al., 2024). In the present study, it was found that the perceived benefit of women with orthopedic disabilities was at a moderate level. Similarly, the mean perceived benefit scores were 12.68 ± 3.7 in the study of Gözüyeşil et al. (2019) and 13.49 ± 2.6 in the study of Durmaz et al. (2021). This situation shows that women's beliefs about cancer prevention are not at the desired level as a result of their low awareness of early diagnosis

behavior of cervical cancer.

Women with disabilities undoubtedly need support in utilizing preventive health services (Adegboyega, Aleshire, Dignan & Hatcher, 2019). In this study, it was determined that the social support perceived by women was at a moderate level, and social support positively affected women's attitudes towards early diagnosis of cervical cancer. In the study conducted by Murshid et al. (2023), women with disabilities in Bangladesh, the mean MPSS total score was 61.36 ± 5.75 , which is higher than our study (Murshid et al., 2023). Similarly, Tatar & Ersin reported that (2021); the total MPSS score of women with disability in Turkey was 59.6 ± 15.51 , which is higher than the MPSS score in our study (Tatar & Ersin, 2021). This difference suggests that more research is needed, as many factors related to the social support perceived by women with disabilities are still unclear and have not been analyzed in detail.

When the MPSS sub-dimensions in the current study were examined, women with disability perceived higher support from family and less support from friends and a special person. In the study conducted by Papa, Koutelekos, Stefanidou, Chrysovitsanou & Polikandrioti (2021) with women with multiple sclerosis who were in the disability category, the median of the MPSS family sub-dimension was 24.0 (min: 19.5-max: 26.0) and the median of the special someone sub-dimension was 24.0 (min: 22.0-max: 28.0) and it was found that the median of the friend sub-dimension was 19.0 (min: 16.0-max: 23.5) and it was perceived lower (Papa et al.; 2021). Like this study, Ersin & Tatar found that disabled women had a higher average score of 22.3 ± 5.13 in the family subscale of the MPSS scale (Tatar & Ersin, 2021). Due to societal perceptions of isolation among disabled individuals and the

cultural emphasis on strong family relations in the region, there is an expectation that disabled people will primarily receive support from their families. It is anticipated that the level of family support will be higher than the average score.

In the present study, it was found that as the support received by family, friends, or a special person increases, the sensitivity and benefit perceived by women toward early diagnosis of cancer increases, and the barrier decreases. When the literature was analyzed, the authors did not come across a study similar to the sample group and scales used in the present study. In addition to contributing to the literature with this aspect of the present study, the literature data for discussing this relationship were tried to be put forward by considering the studies that are thought to be related to the theme of this study. In this direction, Adegboyega et al. (2019), in their study conducted on women with low socioeconomic status, stated that spousal support for early diagnosis behavior of cervical cancer was low. However, they reported that as spousal support increased, women's perceived sensitivity and benefit increased, so women had more positive attitudes. Another study reported that family support positively affects cancer early diagnosis behavior (Adegboyega & Hatcher, 2017). Although the research findings are similar to the literature, it was determined that the attitudes of orthopedically disabled women towards early diagnosis of cervical cancer from preventive health services are not at the desired level. In addition, spouse, family and social support, which play an important role in increasing women's awareness and sensitivity, contribute positively to the early diagnosis behavior of cancer.

Limitations

The present study had several limitations, such

as being conducted in a single center at a specific point in time and relying on self-report measures.

IMPLICATION FOR NURSING PRACTICE

The results showed that participants' perceptions of the sensitivity and seriousness of cervical cancer screening were at a medium level, and perceptions of barriers and benefits were at a low level. In terms of participants' perceptions of social support, the dimension of family and special people is medium and the dimension of friends is low. Women with disabilities, who are disadvantaged groups, and the dimension of social support should be addressed in education planning for early diagnosis behaviors in cervical cancer. Awareness should be raised about preventive health services to prevent cervical cancer, both individually and through the media, and about strengthening social support resources, especially considering the current disadvantages of women with disabilities.

Information

The authors received no external or intramural funding. The authors declare that they have no conflicts of interest. Ethical approval was obtained from Ethics Committee for Non-Interventional Clinical Research of University (date of application: 5/01/2022, date of approval: 18/02/2022 and number: 2167). The participants were informed about the purpose and content of the study. Informed consent has been obtained from all participants included in the study. The authors thank all the women who shared their time and experience to participate in this study.

Author Contributions

Study design: SG, AK; Data collection: SG; Data analysis: SG, AK; Study supervision: SG, AK; Manuscript writing: SG, AK; Critical revisions for important intellectual content: SG, AK.

REFERENCES

- Adegboyega, A., Aleshire, M., Dignan, M., & Hatcher, J. (2019). Spousal support and knowledge related to cervical cancer screening: are Sub-Saharan African immigrant men interested? *Health Care Women Int*, 40(6):665–81. doi: 10.1080/07399332.2019.1615914
- Adegboyega, A., & Hatcher, J. (2017.) Factors influencing pap screening use among African immigrant women. *J Transcult Nurs*, 28(5):479–87. doi: 10.1177/1043659616661612
- Ahmed, A. H., Yakout, S. M., & Tosson, M. M. (2022). Health belief model-based educational program about cervical cancer prevention on women knowledge and beliefs. *ASNJ*, 10(30):51-60. doi: 0.21608/asnj.2022.127397.1343
- Bakan, A.B., Aslan, G., & Yıldız, M. (2021). Determination of breast cancer fatalism in women and the investigation of the relationship between women's cervical cancer and pap smear test health beliefs with religious orientation and fatalism. *J Relig Health*, 60(3):1856–76. doi: 10.1007/s10943-020-01108-2
- Choi, J.Y., Yeob, K.E., Hong, S.H., Kim, S.Y., Jeong, E, Shin, D.W.,...& Kawachi, I. (2021). Disparities in the diagnosis, treatment, and survival rate of cervical cancer among women with and without disabilities. *Cancer Control*, 19(28):107327482110552. doi: 10.1177/10732748211055268
- Durmaz, S., Ozvurmaz, S., Adana, F., & Kurt, F. (2021). Cross-sectional evaluation of relation between women's attitudes towards the diagnosis of cervical cancer and regular gynecological examination. *J Adnan Menderes University Health Sci Fac*, 5(1):26–36. doi: 10.46237/amusbfd.727999
- Duru, G., & Topatan, S. (2023). A barrier to participation in cervical cancer screenings: fatalism. *Women Health*, 63(6):436–44. doi: 10.1080/03630242.2023.2223698
- Edwards, D.J., Sakellariou, D., & Anstey, S. (2020). Barriers to, and facilitators of, access to cancer services and experiences of cancer care for adults with a physical disability: A mixed methods systematic review. *Disabil Health J*, 13(1):100844. doi:10.1016/j.dhjo.2019.100844
- Eker, A., & Aslan, E. (2017). Psychosocial approach of gynecological cancer patients. *J Edu Res Nurs* 14(4):298-303. doi: 10.5222/HEAD.2017.298
- Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior research methods*, 39(2), 175-191. doi: 10.3758/BF03193146
- Gözüyeşil, E., Arıöz Düzgün, A., & Ünal Aslan, K.S. (2019). Evaluation of the women's attitudes towards prevention and early diagnosis of the cervical cancer. *J Continuing Medical Education*, 28(4):228–37. doi: 10.17942/sted.444170
- Huhmann, K. (2020). Barriers and facilitators to breast and cervical cancer screening in Somali immigrant women: An integrative review. *Oncol Nurs Forum*, 47(2):177–86. doi: 10.1188/20.ONF.177-186
- Hunt, X., Carew, M.T., Braathen, S.H., Swartz, L., Chiwaula, M., & Rohleder, P. (2017). The sexual and reproductive rights and benefit derived from sexual and reproductive health services of people with physical disabilities in South Africa: Beliefs of non-disabled people. *Reprod Health Matters*, 12;25(50):66–79. doi: 10.1080/09688080.2017.1332949
- Kilic, A., Tastan, S., Guvenc, G., & Akyuz, A. (2019). Breast and cervical cancer screening for women with physical disabilities: A qualitative study of experiences and barriers. *J Adv Nurs*, 75(9):1976–86. doi: 0.1111/jan.14048
- Mongsawaeng, C., Kokorn, N., Kujapun, J., Norkaew, J., Kootanavanichpong, N., Chavenkuni, W.,...& Kaewpitoon, N. (2016). Knowledge, attitude, and practice regarding cervical cancer among rural

- community women in northeast Thailand. *Asian Pacific J Cancer Prev*, 17(1):85–8. doi: 10.7314/apjcp.2016.17.1.85
- Murshid, M. E., Chen, S., Rahman, M. M., Islam, M. Z., Shimpuku, Y., Era, N. R., ... & Haque, M. (2023). Reliability and validity of the multidimensional scale of perceived social support among women and adolescent girls with disabilities in selected sub-districts of Bangladesh. *Cureus*, 15(11): e49605. doi: 10.7759/cureus.49605
- Özmen, D., & Özsoy, S. (2009). Sağlık inanç modeli yaklaşımı ile servikal kanserin erken tanısına yönelik tutum ölçeği geliştirilmesi. *Ege Üniversitesi Hemşirelik Yüksek Okulu Derg*, 25(1):51–69.
- Papa, A., Koutelekos, I., Stefanidou, S., Chrysovitsanou, C., & Polikandrioti, M. (2021). Factors associated with perceived social support of patients with multiple sclerosis. *Current Journal of Neurology*, 20(2):64. doi: 10.18502/cjn.v20i2.6741
- Prestwich, A., Kenworthy, J., & Conner, M. (2024). *Health behavior change: Theories, methods and interventions* (2nd edition). London: Routledge.
- Ramjan, L., Cotton, A., Algosio, M., & Peters, K. (2016). Barriers to breast and cervical cancer screening for women with physical disability: A review. *Women Health*, 56(2):141–56. doi: 10.1080/03630242.2015.1086463
- Republic of Turkey, Ministry of Family and Social Services, General Directorate of Disabled and Elderly Services. Disability and elderly statistics bulletin, April, 2023. 2023. Available from: https://aile.gov.tr/media/135432/eyhgm_istatistik_bulteni_nisan_23.pdf. Accessed in 2023 (3 Aug).
- Shin, D. W., Lee, J. W., Jung, J. H., Han, K., Kim, S. Y., Choi, K. S., ... & Park, J. H. (2018). Disparities in cervical cancer screening among women with disabilities: a national database study in South Korea. *Journal of Clinical Oncology*, 36(27): 2778–86. doi: 10.1200/JCO.2018.77.7912
- Steuperaert, Q., & Michielsen, K. (2022). The role of healthcare professionals in providing sexuality education to young people with disabilities: A scoping review on barriers and challenges. *Sex Disabil*, 40(4):721–48. doi: 10.1007/s11195-022-09749-9
- Tatar, M., & Ersin, F. (2021). Effect of social support and barrier perceptions of disabled women on early detection of breast cancer. *Health Care for Women International*, 42(7-9):1133–43. doi: 10.1080/07399332.2021.1894152
- Turkish Ministry of Health. Distribution of cancer early diagnosis, screening and education centers in Turkey (Turkey Map). 2021. Available from: <https://hsgm.saglik.gov.tr/tr/ketem>. Accessed in 2023 (3 Aug).
- World Health Organization. Cervical cancer. 2022. Available from: <https://www.who.int/news-room/fact-sheets/detail/cervical-cancer#:~:text=Cervical cancer is the fourth,-income countries>. Accessed in 2023 (11 April).
- World Health Organization. Disability. 2023. Available from: <https://www.who.int/news-room/fact-sheets/detail/disability-and-health#:~:text=An estimated 1.3 billion people – or 16%25 of the global,diseases and people living longer>. Accessed in 2023 (13 May).
- World Health Organization. Global strategy to accelerate the elimination of cervical cancer as a public health problem. 2020. Available from: <https://www.who.int/publications/i/item/9789240014107>. Accessed in 2023 (20 Jul).
- Yeşildağ, B., & Yılmaz, A. (2023). The relationship between women's attitudes towards early diagnosis of cervical cancer and health literacy levels. *International Journal of Health Services Research and Policy*, 8(3):198–206. doi: 10.33457/ijhsrp.1340761
- Zimet, G.D., Dahlem, N.W., Zimet, S.G., & Farley,

G.K. (1988). The multidimensional scale of perceived social support. *J Pers Assess*, 52(1):30–41. doi: 10.1207/s15327752jpa5201_2