

Determining the Attitudes, Behaviours and Affecting Factors of Female Seasonal Agricultural Workers Relating to the Early Diagnosis of Cervical Cancer

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ABSTRACT

BACKGROUND/AIMS: This study was conducted for the purpose of examining the attitudes and behaviours of female seasonal agricultural workers relating to the early diagnosis of cervical cancer.

MATERIALS AND METHODS: This descriptive study was carried out between February and June, 2016. The sample of the study consisted of 210 female seasonal agricultural workers.

RESULTS: It was determined that they obtained the highest score (30.32 ± 6.38) from the lower dimension of perceived severity and the lowest score (22.63 ± 3.96) from the lower dimension of perceived obstacles of the Attitude toward the Early Diagnosis of Cervical Cancer Scale. It was determined that the lower dimension of perceived sensitivity of the Attitude toward the Early Diagnosis of Cervical Cancer Scale was affected by age and educational background and the lower dimension of perceived benefits by age, educational background and language spoken at home ($p < 0.05$).

CONCLUSION: As a consequence, it can be recommended to conduct interventional nursing studies to increase attitudes and behaviours.

Keywords: Seasonal agricultural worker woman, cervical cancer, early diagnosis

INTRODUCTION

Gynaecological cancers are the most common type of cancer among women in the world and in our country.¹ Cervical cancer, which is one of the gynaecological cancers, is the most common important health problem in the world, after colorectal and breast cancer.² According to data from Globocan 2018, while the age-standardized speed rate of cervical cancer is 13.1/100,000, the mortality rate is 6.9/100,000.³ While the age-standardized speed rate of West Asian countries, which include Turkey is 4.1/100,000, the mortality rate has been reported to

be 2.5/100,000.⁴ Our country is one of the West Asian countries that have the lowest incidence of cervical cancer.⁵

Thanks to successful smear test applications, morbidity and mortality rates due to cervical cancer have decreased by more than 70% in many countries.⁶ While 5% of women in developing countries undergo screening tests, this rate reaches up to 90% in developed countries.⁷ Studies have shown that the rate of having a pap smear test is not at the desired level.^{8,9-12} In one study conducted with the participation of 966 women, in which the awareness of the pap smear test was explored in

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Turkey, this awareness level was found to be 75.7%.¹³ In addition, it has been reported that false attitudes and beliefs can be as effective as the level of knowledge in the participation rates of women regarding pap smear test screening.⁸

In Turkey, seasonal agricultural workers are an important risk group in terms of their working and living conditions, poverty and access to health services. For reasons such as poverty, and the inability to access health services, providing health care to seasonal agricultural workers in the environment in which they work is very important. In this process, the nurses involved in the teams that provide this service are key people. Considering that nurses are effective in improving early diagnosis behaviours, nurses have important roles in developing early diagnosis behaviours in this risk group. This study, which was conducted on female seasonal agricultural worker, provides both the identification of attitudes and behaviours related to cervical cancer in this at-risk group and can guide the planning and implementation of future nursing studies. In addition, there are no studies in the literature regarding the attitudes and behaviours of women toward the early diagnosis of cervical cancer. Therefore, this study was conducted to determine the attitudes, behaviours and affecting factors of women relating to the early diagnosis of cervical cancer.

MATERIALS AND METHODS

Research Type: This was a descriptive research.

Time of the Research: The study was carried out between February and June, 2016.

Population and Sample of the Research: The population of this research consisted of married women over the age of 35, who work as seasonal agricultural workers and live in those neighbourhoods where agricultural workers live densely. The 30 cluster sampling technique of the World Health Organization was used in the sample selection. Seven people within each cluster were contacted (210 people in total). The starting points for the clusters were selected by a simple random method from the streets in the above-mentioned neighbourhoods.¹⁴ The research was carried out in two neighbourhoods where seasonal agricultural workers predominately lived. The streets of the neighbourhoods were considered as clusters. Female seasonal agricultural workers who were married and aged 30–65 were included in this study. Women who were single, non-seasonal agricultural workers, under 30 or over 65 were not included in this study.

Data Collecting Tools

Data were collected using the seasonal agricultural workers information form and the attitude scale for the early diagnosis of cervical cancer.

The Seasonal Agricultural Workers Information Form consists of 23 questions including descriptive characteristics, characteristics related to cervical cancer, and characteristics related to seasonal agricultural labour. This form was created by the researcher after reviewing the literature.¹⁵⁻¹⁷

The Attitude Scale Related to the Early Diagnosis of Cervical Cancer

This scale was developed in 2009 by Özmen and Özsoy¹⁶ to explore the attitudes of women towards the early diagnosis of cervical cancer. The scale consists of nine items for the perceived sensitivity sub-dimension, eight items for the perceived seriousness sub-dimension, seven items for

the perceived obstacles sub-dimension, and six items for the perceived benefits sub-dimension. It is a Likert type scale. The scoring of the scale is ordered from “I strongly disagree” with 1 point to “I fully agree” with 5 points. Of the 30 items in the scale, 22 are positive and eight are negative. Scoring of negative expressions is done in reverse order. The highest score that can be achieved in the scale is 150 and the lowest score is 30. The Chronbach Alpha value calculated for the whole attitude scale is 0.89. The Chronbach Alpha value that was obtained through this study for the whole scale was 0.75.

Dependent and Independent Variables

The dependent variables are the early diagnosis behaviours of cervical cancer, the scale score averages and the independent variables are the descriptive characteristics, characteristics related to cervical cancer and characteristics related to seasonal agricultural labour.

Statistical Analysis

SPSS 16.0 (Chicago, IL, USA) software was used in the evaluation of the data. Descriptive statistics (number, percentage, average), significance tests of difference between the two averages (t-test in independent groups), Mann–Whitney U test, Kruskal–Wallis analysis, and Variance analysis were used in the analysis of the data.

Ethical Dimension of the Research

Written permission was received from the Ethics Committee of Harran University (decision numbered: 16/01/22 and dated: 01.25.2016). In addition, informed consent was obtained from the participants. Permission was obtained from the relevant institution.

RESULTS

38.1% of the women were in the 35–39 age range, 83.7% were illiterate, 89.0% had health insurance, 70.5% considered their income to be poor, 55.2% spoke Arabic at home, 97.1% had children (Table 1).

When the data were analysed, it was found that 86.7% had no family history of cancer. 79.5% of the women did not have regular gynaecological examinations, 42.6% did not have any symptoms of disease, 50.5% knew of cervical cancer, 48.2% had learned about it from healthcare personnel, 15.7% had routine screening, 22.4% had had pap smears, and that 82.2% of those who had not had pap smears did not have a pap smear as they did not have enough information about it (Table 2).

It was seen that, 40.5% of the women stayed in the agricultural production area for 7 months or more, 75.7% of them had been working as SAWs for 7 years or more, 85.2% stayed in tents in the agricultural production area and 60.0% did not have the chance to access health services while in the agricultural production area, 81.0% of them stated that they were not protected against the harmful effects of pesticides, and 70.0% of those protected did so by covering their mouths.

The average score of the perceived sensitivity sub-dimension of the women was 27.24 ± 6.29 , the average score of the perceived seriousness sub-dimension was 30.32 ± 6.38 , the average score of the perceived obstacles sub-dimension was 22.63 ± 3.96 , and the average score of the perceived benefits sub-dimension was 22.90 ± 4.63 .

There was found to be a statistically significant difference between the average score of the perceived sensitivity sub-dimension (K-W=19.930,

$p=0.001$) and the perceived benefits sub-dimension ($K-W=17.312$, $p=0.004$) of the attitude scale. There was a statistically significant difference between the average scores of the perceived sensitivity sub-dimension ($KW=10.028$ $p=0.040$) and the perceived benefits sub-dimension ($KW=10.020$, $p=0.040$) of the attitude scale (Table 3).

There was a statistically significant difference found in the average score of perceived benefits sub-dimension ($t=2.654$, $p=0.009$) of the attitude scale according to the status of women having regular gynaecological examinations. A statistically significant difference was found among the average scores of the perceived sensitivity sub-dimension ($t=3.599$, $p=0.000$), the perceived seriousness sub-dimension ($t=2.678$, $p=0.008$) and perceived benefits sub-dimension ($t=2.522$, $p=0.021$) of the attitude scale according to the status of women having knowledge about cervical cancer. Additionally, there was a statistically significant difference found between the average scores of the perceived sensitivity sub-dimension ($t=2.320$, $p=0.021$) and perceived benefits sub-dimension ($t=2.957$, $p=0.003$) according to the status of women having pap smear tests (Table 4).

DISCUSSION

In this study, it was found that 22.4% of SAW women had had a pap smear test and 82.2% of those who had not had a test did not have enough information about the test (Table 2). In a similar study conducted with women in a health centre region; it was found that most of the women who had had pap smear tests (80.8%) had not done so regularly. It was found that women did not have a pap smear tests for reasons such as not knowing that it is necessary to give a swab sample from the cervix, not

Table 1. Distribution of socio-demographic characteristics of women (n=210)

Variables	Number (n)	Percent (%)
Age		
35–39	80	38.1
40–44	43	20.4
45–49	31	14.8
50–54	32	15.2
55–59	14	6.7
60 age and above	10	4.8
Educational background		
Illiterate	176	83.7
Literate	26	12.4
Primary	8	3.8
Health insurance		
Present	187	89.0
Absent	23	11.0
Income status		
High	6	2.8
Medium	56	26.7
Low	148	70.5
The language spoken in home		
Turkish	11	5.2
Arabic	116	55.2
Kurdish	83	39.6
Having a child(ren)		
Yes	204	97.1
No	6	2.9
Total	210	100.0
n: number.		

Table 2. Distribution of some characteristics of female seasonal agricultural workers (n=210)

Characteristics	Number (n)	Percent (%)
Cancer history in the family		
Yes	28	13.3
No	182	86.7
Having regular gynaecological examinations		
Yes	43	20.5
No	167	79.5
The reason for not having gynaecological examinations (n=167)		
Do not have any signs of medical problems	71	42.6
Omission	70	42.0
Being shy	13	7.8
Lack of health insurance	9	5.3
Financial difficulty	4	2.3
Awareness of the cervical cancer		
Yes	106	50.5
No	104	49.5
Where did you find out about cervical cancer? informaiton? (n=106)		
Medical personnel	51	48.2
From other women in the community	32	30.2
Media	23	21.6
Awareness of cervical cancer in relation to routine screen tests		
Yes	33	15.7
No	177	84.7
Screen test known of (n=33)		
Pap smear test	25	75.7
Biopsy	6	18.2
Blood analysis	2	6.1
Where information was learnt (n=33)		
Medical personal	29	87.8
From other women in the community	3	9.1
Media	1	3.1
Pap smear test status		
Yes	47	22.4
No	163	77.6
The reason for pap smear test status (n=47)		
Cervical problems with the decision of the doctor	32	68.1
Due to cervical cancer screening	11	23.4
Due to regular health check	4	8.5
The reason for not having pap smear test (n=163)		
Lack of knowledge	134	82.2
Inability to spare the time	11	6.7
Not having any sign of medical problems	8	4.9
Being shy	5	3.1
Thinking that it is early for testing	3	1.9
Financial difficulty	2	1.2
n: number.		

Table 3. The comparison of the average scores of attitude scale relating to the early diagnosis of cervical cancer according to the socio-demographic characteristics of the female seasonal agricultural workers

The Attitude Scale related to the early diagnosis of cervical cancer sub-dimensions					
Characteristics	n	Sensitivity X±SD	Seriousness X±SD	Obstacles X±SD	Benefits X±SD
Age					
35–39	80	3.18±0.65	3.94±0.68	3.17±0.50	4.02±0.66
40–44	43	2.92±0.64	3.67±0.74	3.23±0.56	3.79±0.65
45–49	31	3.23±0.63	3.90±0.70	3.31±0.52	3.94±0.66
50–54	32	2.61±0.73	3.44±1.03	3.24±0.71	3.35±0.93
55–59	14	3.09±0.68	3.91±0.79	3.25±0.51	3.89±0.75
60 age and above	10	2.81±0.82	3.65±1.03	3.37±0.71	3.28±1.07
Statistical value		K-W=19.930 p=0.001	K-W=8.849 p=0.115	K-W=2.374 p=0.795	K-W=17.312 p=0.004
Educational status					
Illiterate	176	2.97±0.69	3.78±0.77	3.23±0.56	3.81±0.76
Literate	26	3.17±0.64	3.70±0.90	3.27±0.56	3.62±0.79
Primary	6	3.55±0.60	4.31±0.98	3.07±0.72	4.50±0.39
Statistical value		K-W=10.028 p=0.040	K-W=3.741 p=0.442	K-W=2.263 p=0.687	K-W=10.020 p=0.040
Health insurance					
Present	187	3.01±0.71	3.78±0.80	3.21±0.56	3.78±0.79
Absent	23	3.14±0.59	3.84±0.77	3.36±0.60	4.05±0.47
Statistical value		MU=-1.063 p=0.288	MU=-0.270 p=0.787	MU=-1.295 p=0.195	MU=-1.460 p=0.144
Income status					
High	6	3.20±0.89	3.58±0.96	3.00±0.61	3.58±1.25
Medium	56	3.09±0.67	3.68±0.81	3.18±0.57	3.69±0.79
Low	148	2.99±0.70	3.83±0.78	3.26±0.56	3.87±0.73
Statistical value		K-W=0.457 p=0.756	K-W=2.055 p=0.358	K-W=1.672 p=0.433	K-W=2.338 p=0.311
Significant values are shown in bold. SD: standard deviation, n: number.					

considering it necessary, being shy, a lack of money, or thinking that it is a painful procedure.¹⁸ Similar to this study, in another study conducted in 2018, it was found that 28.7% of women had had at least one pap smear test and that 42.7% of those who had never had a pap smear test did not know about this test¹⁹. According to the study conducted by Ramathuba et al.²⁰ in Africa in 2016, only 3.2% of the participants had had a pap smear test and a lack of information was shown to be the reason for this rate being so low. In another study conducted on Turkish women, a lack of information was found to be one of the reasons why they had not had a pap smear test.²¹ In a study conducted on Vietnamese women, about 50% of the participants believed that cervical cancer can be easily treated if diagnosed early and having a pap smear test is the most important way to prevent cervical cancer. In the same study, it was found that women with these thoughts were more likely to have pap smears than those who did not.²² In this study, it is seen that the rate of having pap smear tests is not at the desired level, and this situation could be related to insufficient access to health services while working in agricultural production areas. At the same time, a woman’s lack of family history of cancer, not knowing about screening tests for the early diagnosis of cervical cancer, and living in the field for a long time may have also negatively affected their pap smear test history.

In this study, it was observed that perceived sensitivity had the highest average score and perceived obstacles had the lowest average score. Increasing perceived sensitivity is important in terms of increasing the likelihood that individuals participate in positive health behaviours.²³ In one study conducted by Ersin et al.²⁴, the average sensitivity perception score was reported to be 26.88±4.56. In another study conducted in Iran, an increase in perceived sensitivity was observed in the experimental group.²⁵ In this study, it is considered that the sensitivity perceptions of SAW women are not at the desired level and this situation may adversely affect the likelihood of early diagnosis behaviours. Also, in this study, the average score of the perceived seriousness sub-dimension was found to be 30.32±6.38 (Table 4). In a similar study, the average score of seriousness perception was found to be 25.32±4.66.⁸ In another study, the average score of perception of seriousness was found to be lower at 19.23±4.81.²⁴ According to the Health Belief Model, the perception of seriousness involves evaluating both the medical and clinical outcomes of an illness.²³ The results obtained from this study may be an indication that SAW women can evaluate the results of cervical cancer. In this study, the average score of the perceived obstacles sub-dimension was found to be 22.63±3.96. In another study, the perceived obstacles sub-dimension average score

Table 4. The comparison of average scores of the attitude scale relating to the early diagnosis of cervical cancer according to the cancer-related characteristics of seasonal agricultural worker women

The Attitude Scale related to the early diagnosis of cervical cancer sub-dimensions					
Characteristics	n	Sensitivity X±SD	Seriousness X±SD	Obstacle X±SD	Benefit X±SD
Cancer history in the family					
Yes	28	3.23±0.79	3.67±0.98	3.17±0.41	3.83±0.98
No	182	2.99±0.69	3.80±0.76	3.24±0.58	3.81±0.73
Statistical value		MU=-1.781 p=0.075	MU=-0.357 p=0.721	MU=-1.025 p=0.305	MU=-0.533 p=0.594
Having regular gynaecological examinations					
Yes	43	3.19±0.68	3.98±0.63	3.17±0.49	4.09±0.60
No	167	2.98±0.69	3.74±0.82	3.24±0.58	3.74±0.79
Statistical value		t=1.811 p=0.072	t=1.827 p=0.069	t= -0.752 p=0.453	t=2.654 p=0.009
Awareness of cervical cancer					
Yes	106	3.19±0.62	3.93±0.72	3.17±0.53	3.94±0.72
No	104	2.85±0.73	3.64±0.84	3.29±0.58	3.68±0.80
Where did you learn this information? (n=106)					
Medical personnel	51	3.28±0.63	3.99±0.71	3.10±0.53	4.13±0.69
Media	23	3.25±0.66	4.03±0.67	3.20±0.51	4.11±0.46
From women in the community	32	3.01±0.54	3.76±0.76	3.26±0.56	3.54±0.76
Statistical value		K-W=0.033 p=0.856	K-W=0.006 p=0.806	K-W=0.571 p=0.470	K-W=0.079 p=0.778
The awareness of the cervical cancer in relation to routine screening tests					
Yes	33	3.22±0.67	3.92±0.70	3.18±0.52	3.88±0.66
No	177	2.99±0.69	3.76±0.81	3.24±0.57	3.80±0.79
Screen tests known of (n=33)					
Pap smear tests	25	3.31±0.70	3.93±0.71	3.18±0.52	4.01±0.69
Biopsy	6	3.05±0.61	4.02±0.71	3.30±0.31	3.61±0.34
Blood analysis	2	2.66±0.31	3.43±0.61	2.78±1.11	3.08±1.11
Statistical value		K-W=2.377 p=0.305	K-W=1.302 p=0.521	K-W=0.721 p=0.697	K-W=4.859 p=0.088
Pap smear test status					
Yes	47	3.23±0.65	3.97±0.78	3.16±0.54	4.10±0.72
No	163	2.96±0.70	3.73±0.79	3.16±0.54	3.73±0.76
Statistical value		t=2.320 p=0.021	t=1.786 p=0.076	t=-1.003 p=0.317	t=2.957 p=0.003
Significant values are shown in bold. SD: standard deviation, n: number.					

was found to be low.²⁴ Perceived obstacles is defined as those factors that prevent or complicate protective behaviours related to health.²⁶ The results obtained from this study may be due to the fact that the women stay in agricultural production areas for long periods, their lack of access to health services and their low-income status. The average score of the perceived benefits sub-dimension in this study was found to be 22.90±4.63. In their study, Ersin et al.²⁴ found the average score of the perceived benefits sub-dimension to be 17.86±3.27. Perceived benefits are an individual's belief in preventing a disease by changing their behaviour.²³ The result obtained from this study indicates that women's belief in preventing cervical cancer is not sufficient. This suggests that their awareness levels may be low.

A statistically significant difference was found between the average sensitivity and benefits sub-dimension scores of the attitude scale relating to the early diagnosis of cervical cancer according to the age of the women ($p<0.05$) (Table 3). In another study, it was stated that perception of obstacles increases in those women between the ages of 52–63 but there was no significant difference in their perceptions of seriousness and sensitivity.²⁶ The result obtained from that study may be an indication that the importance given to health care decreases with age.

A significant difference was found between the sensitivity and benefits sub-dimensions in relation to the educational status of the women ($p<0.05$) (Table 3). In the study of Uluocak and Bekar²⁷, it was found

that the total score average of the attitude scale relating to the early diagnosis of cervical cancer was higher in those with a postgraduate education or higher. As the level of education increases, it is expected that sensitivity and benefit perception scores will increase.

The perceived sensitivity, benefits and seriousness sub-dimension scores of those women who had regular gynaecological examinations were found to be higher, and their average scores of the perceived obstacles sub-dimension was found to be lower than those who did not (Table 4). In a study conducted by Kızılırmak and Kocaöz²⁸, it was found that the perceived obstacles sub-dimension scores of those women who had regular genital examinations were low. In that same study, it was also found that those who had gynaecological examinations had low perceptions of pap smear test obstacles. The results of the study may be due to the belief that regular gynaecological examinations will reduce the risk of having cervical cancer.

The perceived sensitivity, seriousness and benefits sub-dimension scores of those women who knew about cervical cancer were found to be significantly higher and their average scores of the perceived obstacles sub-dimension were found to be lower (Table 4). In a study similar to our study, it was found that the pap smear perceived benefits and the health motivation of those women who received information about cervical cancer and screenings was significantly higher and their perception of obstacles was lower.²⁹

In this study, the average sensitivity and perceived benefits sub-dimension scores of having a pap smear test were significantly high (Table 4). Aşilar et al.²⁹ reported that the benefit perceptions of those who had pap smear tests were significantly higher and their perceptions of obstacles were lower. In another study conducted by Özmen and Özsoy¹⁶, the perceived sensitivity, seriousness and benefit scores of those women who had pap smear tests was significantly higher than for those women who did not have tests. According to a study conducted by Demirgöz Bal⁹ on women working in a Public Education Centre, the average scores of seriousness and benefit perceptions of those women who had pap smear tests were found to be higher. The result obtained from our study is an expected result. On the other hand, our result may be due to the fact that SAW women believe that having a pap smear test and the support they receive from health professionals will make it easier for them to protect themselves from cervical cancer. It can also be said that awareness of pap smear tests has positive effects on women's beliefs related to health.

CONCLUSION

It was found that SAW women had the highest score from the perceived seriousness sub-dimension and the lowest score from the perceived obstacles sub-dimension of the attitude scale relating to the early diagnosis of cervical cancer. It is clear that the ratio of women who have pap smear tests and gynaecological examinations is not at the desired level. It is recommended that continuous health education should be provided by health professionals via mobile health services in those areas where SAW women work in order to increase the sensitivity, seriousness and benefit perceptions of SAW women and their rate of having pap smear tests and also to reduce their perception of obstacles.

ETHICS

Ethics Committee Approval: This study was approved by the Ethics Committee of Harran University (decision numbered 16/01/22 and dated 01.25.2016).

Informed Consent: Written permission was received from the women who participated in this study.

Peer-review: Externally peer-reviewed.

Authorship Contributions

Concept: F.Y., F.E., Design: F.Y., F.E., Supervision: F.E., Data Collection and/or Processing: F.Y., Analysis and/or Interpretation: F.Y., F.E., Literature Search: F.Y., F.E., Writing: F.Y., F.E., Critical Review: F.E.

DISCLOSURES

Conflict of Interest: No conflict of interest was declared by the authors.

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MAIN POINTS

- It was found that SAW women had the highest score from the perceived seriousness sub-dimension of the attitude scale relating to the early diagnosis of cervical cancer
- It was found that SAW women had the lowest score from the perceived obstacles sub-dimension of the attitude scale relating to the early diagnosis of cervical cancer.
- It is clear that the rate of women who have pap smear tests and gynaecological examinations is not at the desired level.

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