

## Comparing the symptoms experience of cancer and non-cancer older adult patients in Turkish cancer patients: A cross-sectional study

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### Abstract

This cross-sectional study was conducted with 160 older people to compare the symptoms experience of cancer and with non-cancer older adult patients.

A patient information form and The Rotterdam Symptom Checklist (RSCL) were used to gain information on the experience of their symptoms.

The most prevalent symptoms of older cancer patients were tiredness (53.8%), decreased sexual interest (51.2%) and lack of energy (41.2%), for non-cancer older adult patients was a decreased sexual interest (75.0%). Cancer patients proportionately reported more symptoms than non-cancer patients which was reflected in their higher RSCL score. These findings reflect that a greater number of cancer patients report a higher average of symptoms, especially those that are physical in nature: tiredness, lack of energy, head ache, acid ingestion, loss of hair, burning eyes and sore mouth.

Oncology nurses, who are an important part of the health care team should be able to assess the symptom burden of older patients during their treatment before, during and after chemotherapy.

**Keywords:** Older adult patients, experience of symptoms, geriatric cancer care.

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### Introduction

The elderly population in both developing and developed countries are increasing steadily. The life expectancy for women is 80.7 years and for men is 75.3 years as described in the 2015 literature.<sup>1</sup> As life expectancy increases, chronic health problems, particularly cancer, becomes progressively more common.<sup>2</sup> In our country the main cause of death in the elderly population are due to three diseases: of the circulatory system (46.3%), cancer (16.5%) and the respiratory system (13%).<sup>2</sup> Older adults are one

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of the most indefensible group and are among the rapidly growing population of cancer survivors. More than three-quarters of all cancers are diagnosed in individuals aged 55 and above.<sup>3</sup>

Chemotherapy is widely used in cancer treatment, but its subsequent side effects significantly decrease the quality of life.<sup>4</sup> Also the related side effects of this treatment are more commonly felt in older adults compared to younger adults.<sup>5</sup> However, there are very few studies reported and comparative studies done in the literature between the elderly who develop cancer symptoms with the elderly who are cancer free. Heidrich, Egan, Hemgudomsub and Randolph (2006) studied symptoms in older breast cancer survivors and compared them to older women without breast cancer. Women in both groups reported more than 10 symptoms and no significant difference was noted between cancer survivors and those with no history cancer.<sup>6</sup> Deshields et al found that cancer patients reported higher levels of psychological symptoms than non cancer patients.<sup>7</sup>

The literature stated that the majority of older adults had at least one comorbid disease. So, the changes include multiple, often chronic, overlapping symptoms caused by comorbid chronic health conditions that affect physical function, symptom burden and QOL. However, aged patients without cancer may experience the same symptoms and comorbid condition. Whether the addition of cancer diagnosis, treatment of chronic symptoms and old age health problems influences symptoms burden in older cancer survivors is not known. The purpose of the study was to compare the symptoms experience between cancer and non cancer older adult patients.

### Materials And Methods

This research was a cross-sectional study conducted between July and December 2012 in which a total of 160 participants were assessed. The data was collected from two samples of aged patients receiving medical care in Ege University Tülay Aktas Oncology Hospital, Izmir, Turkey. Institutional (hospital and community dwelling) approval

was taken to perform the study and written permission was sought from the elderly patients.

**Non-cancer older adult patients (NCOAPS):** These participants were living in a community dwelling in which 80 elderly patients were eligible to participate provided they were aged 60 years or above, able to speak and read Turkish, and presented with a medical problem at the community dwelling. Participants who were not diagnosed with any type of cancer or had cancer treatment in the past five years, or were not diagnosed with metastatic cancer at any time, and had no psychiatric or cognitive difficulty that limited their ability to give consent, were not included for this study.

**Cancer older adult patient (COAPs):** The participants included in the study were those who were aged 60 years or older, and diagnosed with cancer, receiving chemotherapy, spoke and read Turkish, were not suffering from any auditory or visual impairment and were willing to participate in the study.

A researcher developed the demographic form which was used to collect the participants' particulars i.e. gender, ethnicity, age, education level, marital status etc. Symptom presence and severity was measured using Rotterdam Symptom Checklist (RSCL) which lists 27 symptoms in people diagnosed with cancer. The tool has been found to be reliable and valid in a number of oncology settings and was adapted for the Turkish populations by Can et al. (2004).<sup>8</sup>

Data were evaluated using SPSS 16.0 giving the mean±standard deviation for continuous variables and frequency and percentages for categorical variables. The Wilcoxon signed rank test was used to determine whether a statistically significant difference between the means existed.

## Results

One hundred sixty (n=80 with cancer / n=80 non- cancer) older adults participated in the study. Of the COAP participants, 49 (61.3%) percent were female. Most of the COAPs (60%) were married and majority of the COAPs 65 (81.3%) had a caregiver. Breast cancers accounted for 31 (38.8%) of COAPs followed by colon 16 (20%) and lung malignancies 11 (13.7%). The most prevalent symptoms for COAPs were tiredness 43 (53.8%), decreased sexual interest 41 (51.2%) and lack of energy 33 (41.2%), while in the NCOAP group the sexual interest was more decreased 60 (75%). The demographic variables of the 80

**Table-1:** Socio-demographic characteristics of participants.

Characteristics	without cancer n(%)	With cancer n(%)
<b>Age group</b>		
60-64 years	3(3.8)	44(55)
65-69 years	22(27.5)	22(27.5)
70 years and above	55(68.7)	14(17.5)
<b>Gender</b>		
Female	32(40)	49(61.3)
Male	48(60)	31(38.7)
<b>Marital status</b>		
Single	17(21.3)	8(10)
Married	5(6.3)	60(75)
Divorced/widow	58(72.4)	12(15)
<b>Education level</b>		
Illiterate	18(22.5)	12(15)
Literate	32(40)	23(28.8)
Primary school	15(18.7)	20(25)
High school	11(13.8)	14(17.5)
University	4(5)	11(13.7)
<b>Occupation</b>		
Retired	38(47.5)	21(26.3)
House wife	26(32.5)	36(45)
Labourer	16(20)	14(17.4)
Employee	-	5(6.3)
Other	-	4(5)
<b>Economic status</b>		
Good	15(18.8)	12(15)
Moderate	50(62.4)	51(63.8)
Poor	15(18.8)	17(21.2)
<b>Have a caregiver</b>		
Yes	30(37.5)	65(81.3)
No	50(62.5)	15(18.7)
<b>Who is caregiver</b>		
Children	6(7.5)	19(23.7)
Caregiver	24(30)	8(10)
Husband	-	31(38.8)
None	-	15(18.7)
Other	-	7(8.8)

NCOAPs are presented in Table-1. A comparison of symptom scores of both, COAPs and NCOAPs are showed in Table-2. As was seen that there were significant differences in tiredness, sore muscles, depressed mood, lack of energy, low back pain, difficulty sleeping, headaches, dizziness, acid ingestion, shivering, tingling hands or feet, sore mouth/pain when swallowing, loss of hair, burning /sore eyes and shortness of breath ( $p < 0.05$ ) (Table-2).

## Discussion

The purpose of this study was to compare the differences in symptom burden between cancer older adult patients (COAPs) and non-cancer older adult patients (NCOAPs) using the Rotterdam Symptom Checklist - a reliable,

**Table-2:** Compare Symptom Scores.

Symptoms	With cancer Mean±SD	Non- cancer Mean±SD	Mean difference	p-value
<b>Physical Symptom</b>				
Lack of appetite	2.59±1.06	1.95±0.89	0.64	0.08
Tiredness	3.24±0.90	2.74±0.89	0.05	0.04*
Sore muscles	2.44±1.11	2.55±1.01	-0.11	0.01*
Lack of energy	3.05±0.91	2.73±0.92	0.32	0.03*
Low back pain	2.41±1.07	2.54±0.82	-0.13	0.01*
Nausea	2.46±1.07	1.58±0.93	0.88	0.13
Difficulty Sleeping	2.46±1.13	2.64±0.94	-0.18	0.02*
Headaches	2.25±1.02	2.15±0.73	0.01	0.01*
Dizziness	2.01±1.03	2.24±0.93	-0.23	0.03*
Decreased sexual interest	3.04±1.09	3.61±0.72	-0.57	0.05
Abdominal aches	2.28±1.00	1.79±0.89	0.49	0.07
Acid ingestion	2.25±1.00	2.19±0.81	0.06	0.00*
Shivering	1.96±0.97	2.13±0.89	-0.17	0.02*
Tingling hands or feet	2.24±0.97	2.43±0.99	-0.19	0.02*
Sore mouth/when swallowing	1.96±0.93	1.94±0.97	0.02	0.03*
Loss of hair	2.79±1.09	2.56±1.04	0.23	0.02*
Burning/sore eyes	2.16±0.98	2.04±0.89	0.12	0.01*
Shortness of breath	2.14±1.02	2.20±0.73	-0.06	0.00*
Dry mouth	2.63±0.94	2.19±0.81	0.44	0.06
<b>Psychological symptoms</b>				
Nervousness	2.81±1.10	2.05±0.96	0.76	0.09
Worrying	2.56±0.85	2.56±0.84	0.00	-
Depressed mood	2.19±1.06	2.39±1.04	-0.20	0.02*
Irritability	2.69±1.12	2.04±1.07	0.65	0.08
Despairing about the future	2.23±1.12	2.79±3.57	-0.56	0.07
Tension	2.86±1.01	2.04±1.06	0.82	0.10*
Anxiety	2.86±1.07	2.38±0.97	0.48	0.06
Difficulty concentrating	2.04±0.92	2.45±1.04	-0.41	0.06

sensitive and valid tool which has been successfully used, both in Turkey and elsewhere, to identify the incidence and severity of common disease/treatment-related symptoms in cancer patients.<sup>8</sup>

The results of this study support that cancer patients experience a level of symptom burden that exceeds from those without cancer. Overall, cancer patients reported proportionately more symptoms than non-cancer patients, reflected in their higher RSCL score. These findings reflect a greater number of cancer patients reporting a higher average in the number of symptoms, especially those that were physical, such as tiredness, lack of energy, head ache, acid ingestion, sore mouth, loss of hair, burning/sore eyes symptoms. Deshields et al (2017) found that most symptoms were significantly more common among cancer patients, except pain, which was significantly more prevalent non-cancer patients.<sup>7</sup> Insomnia, depression, fatigue and pain are most frequently suggested as clustered symptoms among older adults during the

treatment process or within the first year after treatment.<sup>9</sup>

During the aging process, an individual's organ functions decrease, comorbidities develop, and functional status is affected. Such an individual, when suffering from cancer and the effects of chemotherapy treatment may develop multiple symptoms such as tiredness, lack of energy, nausea and sore mouth etc. Wildes et al showed through geriatric assessment the parameters that were associated with completion of a planned course of chemotherapy and mortality.<sup>10</sup> To determine diagnosis and to manage these symptoms necessitates a knowledge of the biology of aging. The best way to identify these symptoms is the way patients may express themselves, but another assessment tool is needed to study symptoms, in elderly cancer patients in particular. Also the family members and caregivers need to be educated so they can better understand these symptoms.

This study revealed that there was no difference in the score between the two groups on the following symptoms: lack of appetite, nausea, decreased sexual interest, abdominal aches, dry mouth, nervousness, worrying, irritability, despairing future, anxiety and difficulty in concentration.

Heidrich, Egan, Hemgudomsb and Randolph (2006) studied symptoms in older breast cancer survivors (n=18) and compared them to older women without breast cancer (n:24). Women in both groups reported more than 10 symptoms, but no significant difference was noted between cancer survivors and those with no history of cancer.<sup>6</sup> Another study found that there was no difference in symptom prevalence between cancer and non-cancer groups, especially symptoms of dry mouth, mouth sores, feeling nervous, worry, cough and dizziness.<sup>7</sup> Study results indicate that all participants reported symptoms mostly attributed to aging and chronic health problems.

Most cancers occur in the older adult population, so symptom assessment needs to include a broader approach, as members of this population are likely to have complex medical histories that include multiple chronic illnesses with concurrent symptoms and their treatment. The presence of oncology-related symptoms should be explored in context with patients' medical and surgical histories and current medical and surgical treatments.

Additionally, it is important to provide personalised care to this segment of the population. This can be achieved

through a multidisciplinary approach in which healthcare specialists with specialties in different medical issues faced by aged people, work together to work out an optimal care programme.

The most important role of oncology nurses is to educate patients and their families about treatment-related side effects. Side effects should be monitored closely and appropriate interventions devised to promptly detect them or prevent them to ease the elderly person's ability to cope with the cancer experience.

## Conclusion

The study on the older patients with cancer and with non-cancer elderly present complex problems that need comprehensive physiological and psychosocial support in order to maintain homeostasis under the stress of the disease and its treatment. The diversity of the geriatric population mandates individualised treatment programmes based on a multidisciplinary assessment of the patient. Oncology nurses are an important part of this team who should be able to assess the symptom burden of older patients before, during and after chemotherapy. Their attentiveness towards their patients ensures emotional support with a focus on their quality of life, that they can bring to the attention of the doctor and other members of the team. With this approach, older persons with cancer can be treated in an optimal manner and hopefully, their survival can be improved in a meaningful way.

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