



Clinical Group

# Global Journal of Medical and Clinical Case Reports

ISSN: 2455-5282

DOI

CC BY

**Gamze Gokoz Dogu<sup>1\*</sup>, Aysegul Atceken<sup>1</sup>, Gizem Cetinkaya<sup>1</sup>, Merve Oner<sup>1</sup>, Nazire Nagihan Yagin<sup>1</sup> and Ahmet Ergin<sup>2</sup>**

<sup>1</sup>Department of Internal Medicine, Faculty of Medicine University of Pamukkale, Denizli, Turkey

<sup>2</sup>Department of Public Health, Faculty of Medicine, University of Pamukkale, Denizli, Turkey

**Dates:** Received: 24 March, 2017; Accepted: 01 April, 2017; Published: 03 April, 2017

**\*Corresponding author:** Gamze Gokoz Dogu, Department of Internal Medicine, Faculty of Medicine University of Pamukkale, Denizli, Turkey, Email: ggd2882@gmail.com

**Keywords:** Cancer screening; Denizli; Early diagnosis; KETEM

<https://www.peertechz.com>

## Research Article

# Patients Admitted to Tertiary Health Care Center: Cancer Screening Program Awareness Study

## Abstract

**Background:** Screening programs for detecting cancer early are critically important for a better prognosis and a long acting survival. In our country, second most common cause of death is cancers with the rate of 21.1 %. The aim of this study was to investigate cancer screening and awareness in healthy individuals in our region.

**Study Design:** The survey was conducted on 400 randomly selected patients who were admitted to Pamukkale University hospital with the method of face to face interview in May 2016 Statistical evaluation was performed using SPSS v22.

**Results:** Of the 400 participants, 192 (45%) were male, and 208 (52%) were female. We found out that stated that they had heard the cancer screening programs 65% and KETEM- Cancer Early Diagnosis and Training Centers name units in Turkey = Kanser Erken Tanı, Tarama ve Eğitim Merkezi - (18,5%).

Only 31.7% of the participants knew the the cancer screening and the proportion who answered correctly was higher among less than 30 years old ( $p=0.007$ )

Early diagnosis and treatment of cancer is most of the time lifesaving. In our study we saw that most of the people had less and missing knowledge about cancer early diagnosis. People who had a history of cancer in their family had much more knowledge about cancer screening tests.

Of the 81.5% participants had not heard about KETEM, and 35% had not heard about the cancer screening programs.

**Conclusion:** Awareness studies for relatives of patients with cancer should be conducted. Due to low rates of correct answers were given to the questions of methods for screening methods, our people should be informed about cancer screening.

## Introduction

Cancer is a group of diseases characterized by uncontrolled growth of a cell clone and metastasis into other organs. While worldwide three most common cancers among men are lung, prostate and colorectal cancers; among women are breast, colorectal and cervix cancers [1]. In Turkey, while lung, prostate and bladder cancers are three most common cancers among men, breast, thyroid and colorectal cancers are the three most among women [1]. Cancer is one of the major cause of death, and prevention have been suggested for preventing and reducing the mortality of cancer [2]. Cancer incidence is increasing due to in the number of early-stage cases because of newly developed diagnostic tests and cancer survey programs, and improvements in the treatment.

Many health care institutions in Turkey provide tests and examinations to detect cancer early, and Cancer Early Diagnosis Screening and Training Centers (KETEMs) conduct community-based cancer screening programs. Cancer Early Diagnosis and Training Centers (KETEM) were established in 14 cities of our country in 2003 and the total number of these centers has now reached 124. KETEMs increase the community's awareness of cancer through training to make early cancer diagnosis and screening. KETEMs provide cancer screenings in Turkey for cervical cancer in women aged 30 to 65, for breast cancer in women aged 50 to 69, and for colorectal cancer in women and men aged 50 to 70. Population based screening and public training programs are being organized within these centers. Public service related to cancer early diagnosis, screening and treatment is presented to the public free of charge.

The aim of this study was to investigate cancer screening and awareness in healthy individuals in our region. The objective of the study was explained to the participants, and their consent was obtained. The identification forms were filled by the participants. The forms were evaluated by a single person.

The study was approved by the Ethics Committee of Pamukkale University.

## Materials and Methods

This is a cross-sectional descriptive study, the detection of participants' awareness about cancer and screening programmes, a 17-item questionnaire was applied to 400 patients who were admitted to Pamukkale University hospital with the method of face to face interview in May 2016.

Besides the identification form including such socio-demographic characteristics as the age, gender and educational status, also the story of previous diagnosis, family story and treatment of the participants.

Statistical analysis was made using SPSS 22.0 software. The statistical relationship between the groups was assessed with the chi-square test. The significant p value was set as <0,05.

## Results

Of the total 400 participants whose informed consent has been obtained, 192 (45%) were male, and 208 (52%) were female (Table 1). The median age of the participants was 22 years old (range 18-85). The educational status of most of the participants (70%) was recorded as high school education (Table 2).

When the participants were asked where they would apply for cancer screening in their region, most frequent answer was found to be the KETEM with the percentage of 18.5% (Table 3). Most of the participants didn't answer this question correctly 273 (68,3%). Of the 20(5%) survey participants selected more than one option in response to this open-ended question type.

About one third of all women participants (34,6% diagnosis and screening. We didn't find statistically significant ( $p=0.081$ ).

Only 31.7% of the participants knew the cancer screening centers or KETEM and the proportion who answered correctly was higher among less than 30 years old than older 30 years old (22.5% vs 11.1%, respectively,  $p=0.007$ )

**Table 1:** Participants characteristics.

Characteristics		Participants, n (%)	Median 95% CI
Age(year)		-	22(18-85)
	≥30 years old	145(36.2)	
	<30 years old	255(63.8)	
Gender	Male	192(45)	
	Female	208(52)	
Marriage status	Married	130(32.5)	
	Single	270(67.5)	

**Table 2:** Educational status of participants.

Educational status	Number of participants n(%)
Primary school	48 (12)
Second degree	19 (4.75)
High school	280(70)
Faculty	53(13.25)
Total	400 (100)

**Table 3:** Centers presented for cancer screening.

Centers presented for cancer screening.	Number of participants n(%)
State Hospitals	16 (4)
1. Level Health Institute	22 (5.5)
University Hospitals	33(8.25)
KETEM (Cancer Early Diagnosis and Training Centers)	74 (18.5)
Total	145 (100)

\*\*\*Participants are able to choose more than one of the choices provided.

A statistically significant correlation was not detected between educational status and knowledge about cancer screening or cancer screening centers-KETEM ( $p=0.062$ ,  $p=0.143$  respectively).

In this study only 7.5% participant ( $n=30$ ) had got themselves screened for any cancer, ever in their lifetime. Majority of them underwent screening for breast cancer in the form of mammography (20 women), cervical smear (8 women) and examination of the prostate (2 men).

## Discussion

Cancer is a major health issue as a leading cause of death worldwide [3]. The global cancer burden in Turkey as well as all over the world expected to rise if preventive measures are not enforced [4].

The majority of deaths from cancer occur in low and middle income countries and is most likely because of delayed presentation [5,6]. This is due to a number of factors including poor awareness of the signs and symptoms of cancer, cancer risk factors, poor availability of tests or screening programs and limited access to standard treatment [7,8]. Besides early diagnosis and treatment, primary prevention is also important, which is a significant social burden.

When the age of cancer diagnosis is considered, a participant group that may be regarded young for many types of cancer was involved in the study.

Some demographic characteristics, such as educational level and poverty, have been associated with lower likelihood of cancer screening [9]. But in our study, we didn't find any statistically significant correlation.

We found that 81.5% of the participants had not heard about KETEM, and 35% had not heard about the cancer screening programs.

The level of cancer awareness is low and their percentage of screening is insufficient. Changing social structure and the developing communication technologies must be taken into account in designing the cancer screening programs. It is observed that recognition level of KETEMs is low. We think that KETEMs must be publicized more. We think that, determination of the risk factors and promoting the awareness of individuals are important in the fight against cancer.

## Conclusion

Cancer is becoming a critical public health problem in Turkey. Cancer is the second commonest cause of death in Turkey, after cardiovascular diseases.

The level of cancer awareness in our population is low and their percentage of screening is insufficient. Changing social structure and the developing communication technologies must be taken into account in designing the cancer screening programs.

## References

1. [Link: https://goo.gl/Ry5fmL](https://goo.gl/Ry5fmL)
2. Adami HO, Day NE, Trichopoulos D, Willett WC (2001) Primary and secondary prevention in the reduction of cancer morbidity and mortality. *Eur J Cancer* 37: 118-127. [Link: https://goo.gl/CDgBXy](https://goo.gl/CDgBXy)
3. Allemani C, Weir HK, Carreira H, Harewood R, Spika D, et al. (2015) Global surveillance of cancer survival 1995–2009: analysis of individual data for 25,676,887 patients from 279 population-based registries in 67 countries (CONCORD-2). *Lancet* 385: 977-1010. [Link: https://goo.gl/TchmeY](https://goo.gl/TchmeY)
4. Stewart BW, Wild CP (2014) *World Cancer Report 2014*. Lyon France IARC. [Link: https://goo.gl/Bj4WhH](https://goo.gl/Bj4WhH)
5. Harford JB (2011) Breast-cancer early detection in low-income and middle-income countries: do what you can versus one size fits all. *Lancet Oncol* 12: 306-312. [Link: https://goo.gl/2FlpvB](https://goo.gl/2FlpvB)
6. Macleod U, Mitchell ED, Burgess C, Macdonald S, Ramirez AJ (2009) Risk factors for delayed presentation and referral of symptomatic cancer: evidence for common cancers. *Br J Cancer* 101: 92-101. [Link: https://goo.gl/LVQKpz](https://goo.gl/LVQKpz)
7. Richards MA (2009) The National Awareness and Early Diagnosis Initiative in England: assembling the evidence. *Br J Cancer* 101: S1-4. [Link: https://goo.gl/HDJ0iV](https://goo.gl/HDJ0iV)
8. Robb K, Stubbings S, Ramirez A, Macleod U, Austoker J, et al. (2009) Public awareness of cancer in Britain: a population-based survey of adults. *Br J Cancer* 101: 18-23. [Link: https://goo.gl/Mc0AfD](https://goo.gl/Mc0AfD)
9. Fontana SA, Baumann LC, Helberg C, Love RR (1997) The delivery of preventive services in primary care practices according to chronic disease status. *Am J Public Health* 87: 1190–1196. [Link: https://goo.gl/a1SmAJ](https://goo.gl/a1SmAJ)