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Üniversite Öğrencilerinin Kendi Kendine Testis Muayenesine Hakkında Farkındalıklarının, İnanç ve Uygulamalarının İncelenmesi

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Özet

Amaç: Bu çalışmada testis kanseri için risk grubunda olan üniversite öğrencilerinin kendi kendine testis muayenesi (KKTM) ile ilgili farkındalık durumlarını, inanç ve uygulamalarını incelemek amaçlanmıştır.

Yöntem: Bu araştırma, tanımlayıcı ve kesitsel olarak, Konya'da bir üniversitede 2019-2020 eğitim-öğretim yılı, Ocak-Mart 2020 tarihlerinde yürütüldü. Araştırmaya katılmayı gönüllü olarak kabul eden, toplam 310 erkek öğrenciye ulaşıldı. Veri toplamada, araştırmacılar tarafından oluşturulan anket formu ile "Champion Sağlık İnanç Modeli Ölçeği'' kullanıldı. Bulgular: Öğrencilerin yaş ortalaması 21,6 ±2,3 olup, 99,7%'si bekar, %81,6'sının daha önce KKTM duymadığı, %91,0'inin hayatında hiç KKTM yapmadığı bulunmuştur. Daha önce testis kanseri hakkında bilgi alanların oranı %39,0 olup, bu öğrencilerin %14'ü düzenli olarak KKTM yapmaktadır (p=0,000). Ayrıca bu öğrencilerin önemseme puan ortalamaları bilgi almayanlara göre daha yüksektir (p=0,015). Daha önce testisleri ile ilgili sorun yaşayan öğrencilerin oranı ise %4,8 olup, bu öğrencilerin %53,3'ü düzenli KKTM yapmakta (p=0,000) ve testisleri ile ilgili sorun yaşayan ile yaşamayanların duyarlılık puanları benzerdir (p=0,998). KKTM'nin düzenli olarak yapılmasının gerekli olmadığını düşünenlerin, engeller puan ortalaması gerekli olduğunu düşünenlerden daha yüksektir (p=0,000). Öğrencilerin sınıf düzeyi arttıkça da yararlar ve öz etkililik puan ortalamaları artmaktadır (p=0,001).

Sonuç: KKTM yapan ve testis kanseriyle ilgili bilgi alan öğrencilerin oranının oldukça düşük olduğu bulunmuştur. Bu doğrultuda, öğrenciler için bilgi ve farkındalıklarının artırılması için eğitim programlarının düzenlenmesi önerilmektedir.

Anahtar Kelimeler

Farkındalık
Testis kanseri
Kendi kendine testis muayenesi
Üniversite
Öğrenciler

Makale Hakkında

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Examining Of University Students' Awareness, Beliefs and Practices About Testicular Self Examination

Abstract

Objective: In this study, it was aimed to examine the awareness, beliefs and practices of university students in the risk group for testicular cancer about TSE.
Method: This research, descriptively and cross-sectionally, was carried out in a university in Konya in the academic year of 2019-2020, January-March 2020. A total of 310 male students who voluntarily accepted to participate in the study were reached. In data collection, the "Champion Health Belief Model Scale" was used with the questionnaire form created by the researchers.
Results: The average age of the students was 21.6 ± 2.3, 99.7% of them were single, 81.6% of them had not heard of TSE before, and 91.0% of them had never practiced TSE in their lives. The rate of those who were informed about testicular cancer before was 39.0%, and 14% of these students regularly practiced TSE (p= 0.000). In addition, the mean scores of these students were higher than those who did not receive information (p= 0.015). The rate of students who had problems with their testicles before was 4.8%, and 53.3% of these students regularly practiced TSE (p= 0.000) and the sensitivity scores of those who had problems with their testicles and those who did not were similar (p =0.998). The general score average of those who thought that TSE was not necessary to be practiced regularly was higher than those who thought it was necessary (p= 0.000). As the grade level of the students' education year increased, the mean of benefits and self-efficacy score increased (p= 0.001).
Conclusions: It was found that the rate of students who practiced TSE and got information about testicular cancer was quite low. Accordingly, it is recommended to organize training programs for students to increase their knowledge and awareness.

Keywords

Awareness
Testicular cancer
Testicular self-examination,
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Introduction

Testicular cancer is the most common type of cancer in the urogenital system in men aged 15-34 (Manecksha & Fitzpatrick, 2009). Testicular cancer has become more common around the world and especially in white race, with a prevalence of 6-11 per 100.000, an annual increase of 3-6% has been reported (Yurt, Sağlam & Kadıoğlu, 2020). It is reported that approximately 50.000 new cases are diagnosed annually and 10.000 deaths from testicular cancer occur annually worldwide (Kalan Farmanfarma et al., 2018). In the United States of America (USA), the new case is estimated 9160 in 2020, the estimated death is 440 (Siegel et al., 2020). Turkey also ranked first with a rate 24.8'lik% for men in the 15-24 age range, the most common type of cancer (Turkey Cancer Statistics, 2016).

Although the etiology of testicular cancer is not known exactly, it can occur in both testicles. It is reported that the most important risk factor is past cryptorchidism (Huyghe, 2008). In addition undescended testicle, Klinefelter's syndrome, infertility, history of testicular cancer in a first-degree relative, estrogen level in intrauterine life, twinning, consanguineous marriage, at father or sibling testicular cancer, testicular trauma, and inguinal hernia are among the risk factors (Albers et al. 2015; Faydali 2018; Kuzgunbay, 2014).

Testicular cancer is a highly treatable disease when diagnosed at an early stage (Doğan et al, 2016; Ugurlu et al., 2011; Uyar et al., 2018). Although it is a rapidly spreading disease, if diagnosed early, 85-90% of the patients can be completely cured (Huyghe et al., 2007). In testicular cancer, the life expectancy of 5 years is 99% in stage I (Lechner et al., 2002). Regular self-testicular examination (TSE) has an important place in early diagnosis of testicular cancer (Ugboma & Aburoma, 2011; Yıldız & Yeşildağ, 2015). TSE is the examination practiced by the person herself, once a month and regularly,

using both hands, in the shower or in front of the mirror after the shower to investigate the mass of the testicle (Göçgeldi & Koçak, 2010). If practiced regularly every month, it helps to detect differences in testicular tissue at an early stage (McCullagh et al.,2005; Yalçınkaya et al., 2008; Yılmaz et al., 2010). The European Association of Urology (EAU) although there are no studies proving the advantages of screening programs, because the stage and prognosis are directly related to early diagnosis in men with clinical risk factors finds TSE recommended (Kuzgunbay, 2014). The Adolescent Health and Medicine Association emphasizes the necessity of regular testicular examinations practices as a way to detect testicular cancer and testicular abnormalities in men (Thornton, 2016). American Medical Association (AMA) and American Urological Association (AUA) recommend informing and educating the public about TSE for early diagnosis of testicular cancer (Huyghe, 2008). National and international studies show that young men do not have information about the prevalence of testicular cancer and testicular cancer in own age groups, risk factors, do not recognize the general signs and symptoms of testicular cancer, and almost never practice TSE (Doğan et al., 2016; Khadra & Oakeshott, 2002; Lechner et al., 2002; McCullagh et al.,2005; Roy & Casson, 2017; Rudberg et al., 2005; Yılmaz et al., 2010).

Early diagnosis and awareness of the risk of metastasis of testicular cancer is very important. Determining the TSE awareness status and approaches of young men in the risk group, to explain the importance of TSE to those who are not aware of these results, who do not know or do not practice TSE and planning needs to be made to teach correct applications. It is thought that the results of the study will be useful for future educational studies by contributing to the literature. In addition, it is thought that it will be a resource for TSE, which has very few studies in the literature. The aim of this study is; to examine the awareness, beliefs and practices of male students who study at universities other than a health-related department about TSE.

Materials and Methods

The research was carried out descriptively and cross-sectionally in a university in Konya in the academic year 2019-2020, January-March 2020. The universe of the research consists of prep, first, second, third and final year students studying Faculty of Law, Faculty of Social and Human Sciences, Faculty of Engineering, Faculty of Fine Arts and Design, Faculty of Economics and Administrative Sciences, School of Foreign Languages, Vocational School of Justice in the 2019-2020 academic year of a private university. Students studying in health-related departments (Faculty of Medicine, School of Health Sciences and Vocational School of Health Services) were not included in the sample of the study. As a data collection tool in research; "Socio-demographic and Self Testicular Examination Information Form" consisting of 15 questions prepared in line with the literature and "Champion Health Belief Model Scale (CHBMS)" were used by the researcher.

Socio-demographic and Self-Testicular Examination Information Form: Questions in the questionnaire includes such as age, marital status, faculty of education and class, students 'socio-demographic and descriptive characteristics and students' knowledge of testicular cancer, whether there is a previous health problem related to their testicles,

The presence of a family history of testicular cancer, situations of knowing and practicing TSE, training / information retrieval situations for TSE.

CHBMS: The health belief model was developed by a group of psychologists in the United States in 1950 to cover four sub-headings: "susceptibility, seriousness, benefits and barriers". Champion added the self-efficacy / confidence area to this model, which consists of four areas, and revised it in 1999. Finally, Barnes (2000) developed Champion's Health Belief Model (CSIM) to be used in beliefs and practices for TSE and testicular cancer screening and he/she presented it to the literature under the name of CHBMS. The Turkish validity and reliability study of Champion's health belief model scale was conducted by Pınar et al. (2011). The Cronbach alpha coefficient in the original scale is between

0.69 and 0.90. and The Cronbach alpha reliability coefficient of the subscales of the Turkish Champion health belief model scale is between 0.64 and 0.92. (Pınar et al., 2011). The Cronbach alpha reliability coefficient of the subscales of the scale in our study was 0.60 and 0.91.

The scale consists of 26 items in total. It has five subscales, questions between the suscebtibility subscale 1-5 (5 items); seriousness subscale questions between 6-12 (7 items); benefits subscale questions between 13-15 (3 items); Questions between 16-20 in the barriers subscale (5 items); self-efficacy subscale between 21-26 questions (6 items). Scale; It is answered as Strongly Disagree, Disagree, Undecided, Agree, Strongly Agree. Each dimension of the scale is evaluated separately without being combined into a single total score. Sensitivity and care the high level for testicular cancer increases the possibility of performing TSE. Similarly, if the perception of men about the benefits of TSE outweighs their perceptions about the obstacles to self-testicular examination, the rate of self-testicular examination practice increases (Pınar et al., 2011). Permission was obtained from the authors by e-mail for the use of the scale.

The questionnaire form and scale were collected by face-to-face interview technique within the school boundaries to students who agreed to participate in the study. While the students answered the questions, only the researchers were present with them. Percentage, frequency, arithmetic mean, independent sample t test, ANOVA and chi-square tests were used to analyze the data.

Ethical Aspect of the Research

The students who participated in the study were informed about the purpose of the study and their verbal consents were obtained from those who accepted to participate in the study.

In order to conduct our research, permission has been obtained from xxx University Human Research Ethics Committee with the decision number 46409256-300

Results

The distribution of the students participating in the study according to their socio-demographic and some characteristics is given in Table 1. The average age of the students was 21.6 ± 2.3. Nearly half (46.5%) of the students participating in our research were studying at the Faculty of Engineering. 12.9% of all students were first, 24.5% were second, 26.5% were third, 21.9% were fourth and% 14.2 of them were fifth education year. 99.7% of the students were single and 39.0% had knowledge about testicular cancer. As the source of information of the informants, the majority (33.9%) stated that they had the internet followed by friends (29.8%). It was determined that 6.5% of the students had a family history of testicular cancer, and 95.2% of them did not have any health problems related to their testicles (Table 1).

Table 1. Distribution of Students by Sociodemographic and Some Characteristics (n = 310)

	Number (n)	**Percent (%)**
Faculty		
Engineering Faculty	144	46.5
Faculty of Social and Human Sciences	21	6.8
Faculty of Economics and Administrative Sciences	41	13.2
School of Foreign Languages	51	16.5
Faculty of Law	40	12.9
Faculty of fine arts	4	1.3
Justice Vocational School	9	2.8
Education Year		
First	40	12.9
Second	76	24.5

Third	82	26.5
Fourth	68	21.9
Fifth	44	14.2
Marital Status		
Married	1	0.3
Single	309	99.7
Getting information about TC*		
Yes	121	39
No	189	61
Source of information about TC*		
Television	18	14.9
Health Personnel	26	21.5
Friend	36	29.8
Internet	41	33.9
Presence of a family history of TC*		
Yes	20	6.5
No	290	93.5
Having problems with his testis		
Yes	15	4.8
No	295	95.2

TC*= Testicular Cancer

The distribution of the students participating in the study according to the characteristics of TSE is given in Table 2. It was determined that 81.6% of the students had not heard of TSE before and 91.0% of them had never practiced TSE in their lives. When the reasons of students not practicing TSE are examined; It was found that 57.2% of them did not know TSE, 27.6% did not care about the examination, 6.6% because they were afraid of the examination, 6.6% because they felt guilty about the examination, and 1.7% because they found it a sin to practice the examination. It was determined that most of the students (88.4%) did not receive any training about TSE. Students (11.6%) who received education as a source of information 33.3% of them were health personnel, 25.0% of them were the media, 22.2% of them were books and magazines. 40.6% of the students think that it was necessary to practice TSE regularly (Table 2).

Table 2. Distribution of Students According to Their Characteristics Regarding TSE (n = 310)

	Number (n)	**Percent (%)**
Having heard about the TSE before		
Yes	57	18.4
No	253	81.6
Having practiced TSE* before in your life		
Yes	28	9.0
No	253	81.6
Practicing TSE* regularly		
Yes	20	6.5
No	290	93.5
Reasons for not practicing TSE*		
Not knowing about TSE*	166	57.2
Feeling guilty about the examination	19	6.6
Find it a sin to do the examination	5	1.7
Ignoring the examination	80	27.6
Fear of the result of the examin	20	6.9
Taking Training about TSE*		
Yes	36	11.6
No	274	88.4

Information source about TSE*		
Health personnel	12	33.3
Media	9	25.0
Book, magazine …	8	22.2
Friend, relative	7	19.5
Should TSE* be performed regularly?		
Yes	126	40.6
No	184	59.4

TSE* = Testicular Self Examination

The comparison of CHBMS subscale mean scores of the students according to socio-demographic and some characteristics are given in Table 3. Students' in first year CHBMS benefits subscale mean score was statistically significantly lower than the mean score of students in other education years (second, third, fourth, fifth) and it was found that as the grade level increased, the mean score increased (p= 0.000). There was a statistically significant difference between the CHBMS self-efficacy subscale mean scores of the students in first education year and the mean scores of the students in other education years (p= 0.001). It was found that the mean scores of the students in first education year were the lowest and the students' in third education year mean scores were the highest.

A statistically significant correlation was found between CHBMS seriousness subscale mean scores between those who had knowledge about testicular cancer and those who did not (p = 0.015). The seriousness subscale for those who had information about testicular cancer was higher than those who did not average. There was no statistically significant difference between CHBMS self-efficacy score means of those who had no prior knowledge of testicular cancer (p= 0.506).

A statistically significant difference was found between the mean scores of CHBMS seriousness ssubscale between those with and without a family history of testicular cancer (p= 0.001). The mean scores on the seriousness subscale of those with in a family history of TC were higher than those who did not.

The CHBMS suscebtibility subscale mean scores of those who had problems with testicles before were the same as those who had no problems, and there was no statistically significant relationship between the mean scores (p= 0.998). There was no statistically significant difference between CHBMS barriers subscale mean scores between those who TSE regularly practiced and did not (p= 0.431).

Those who think that TSE was not required to be practiced regularly, CHBMS barriers subscale mean scores were higher than students who thought that TSE should be practiced regularly and a statistically significant relationship was found between them (P = 0.000).

Table 3. CHBMS Subscale Score Means of Students According to Socio-demographic and Some Features (n = 310)

Benefits Subscale Mean Score	x̄	SD	*p	**F
Education Year				
First	6.75	±1.57	0.000*	6.188
Second	7.02	±1.55		
Third	7.68	±1.59		
Fourth	7.86	±1.57		
Fifth	8.03	±1.77		
Self-efficacy Subscale Mean Score	**x̄**	**SS**	***p**	****F**
First	11.65	±4.33	0.001*	4.712

Second	13.70	±4.93		
Third	14.63	±4.42		
Fourth	15.40	±4.80		
Fifth	14.18	±4.03		
Seriousness Subscale Mean Scores	**x̄**	**SS**	***p**	**&t**
Getting Information About TC Condition				
Yes	19.95	±4.66	0.015*	2.455
No	18.56	±4.96		
Self-Efficacy Subscale Mean score	**x̄**	**SS**	***p**	**&t**
Getting Information About TC Condition				
Yes	14.40	±4.59	0.506	0.665
No	14.04	±4.74		
Seriousness Subscale Mean Scores	**x̄**	**SS**	***p**	**&t**
The Presence of TC history in the Family				
Yes	22.47	±4.55	0.001*	3.230
No	18.87	±4.83		
Suscebtibility Subscale Mean Scores	**x̄**	**SS**	***p**	**&t**
Having Problem with the Testicles				
Yes	9.84	±3.16	0.998	-0.003
No	9.84	±3.05		
Barriers Subscale Mean Scores	**x̄**	**SS**	***p**	**&t**
Condition of Practicing TSE Regularly				
Yes	12.34	±3.79	0.431	0.789
No	11.77	±3.07		
Barriers Subscale Mean Scores	**x̄**	**SS**	***p**	**&t**
TSE Regularly Should it be practiced				
Yes	10.68	±3.43	0.000*	-5.241
No	12.57	±2.63		

x̄=Mean, SD= Standart Deviation, *p<0.05, & t= Independent t test, **F= Anova test, TC=Testicular Cancer, TSE* = Testicular Self Examination

education year students was 8.8%, it was 3.7% for second education year students. However, no statistically significant difference was found between the education years (p= 0.776). 14% of the students who got information about testicular cancer and 1.6% of the students who did not receive information regularly practice TSE and there was a statistically significant relationship between students' knowledge of testicular cancer and their state of practicing TSE (p= 0.000).

While 30% of those with a family history of testicular cancer practiced TSE, 4.8% of those with no family history of testicular cancer practiced TSE and there was a statistically significant difference between them in terms of practicing TSE (p= 0.000). Those who had a family history of testicular cancer regularly practiced TSE more than those who did not. It was determined that 53.3% of those who had problems with their testicles before practiced TSE regularly, and the situation of practicing TSE was significantly higher than those who did not have problems with their testicles (p= 0.000).

Table 4. Comparison of the Students' Education years, Status Receiving Information About Testicular Cancer, Testicular Cancer Family History and Having Testicular Problems with TSE (n = 310)

	TSE Practice Status					
	Yes		**No**			
	n	**%**	**n**	**%**	**P***	**&X^2**
Status Receiving Information About TC						
Yes	17	14.0	104	86.0	0.000*	18.983
No	3	1.6	186	98.4		
Education year						
First	3	7.5	37	92.5	0.776	1.778
Second	5	6.6	71	93.4		
Third	3	3.7	79	96.3		
Fourth	6	8.8	62	91.2		
Fifth	3	6.8	41	93.2		
TC Family History						
Yes	6	30	14	70	0.000*	19.643
No	14	4.8	276	95.2		
Having Testicular Problems						
Yes	8	53.3	7	46.7	0.000*	57.403
No	12	4.1	283	95.9		

*p<0.05, &X^2= Chi-Square analysis

Discussion

This research was carried out to determine the awareness, beliefs and behaviors of male university students studying in a department that is not related to health. In our research, it was found that 6.5% of the students practiced TSE regularly, the majority (81.6%) had not heard of TSE before, and 11.6% received information about TSE. When the literature is examined; It was seen that there were results similar to our findings. In a study conducted by Ramim et al. (2014) with 280 students studying in health sciences in Iran, it was reported that 8% (n = 20) of the students practiced TSE and 90% of them had never heard of TSE before. In the study of Gutema et al. (2018), of the students (n = 884) 11.8% (n = 98) practiced TSE in the last 12 months and nobody was practiced TSE regularly. In their study, Göçgeldi et al. (2010) found that young men (n = 329) were 8.8% (n = 29) who practiced TSE at least once in their lifetime. In the study of Yurt et al. (2020), it was determined that 88.3% of university students (n = 681) did not hear about TSE, the vast majority of students were not knowledgeable about testicular cancer and did not know how to practice TSE. In another study by Asgar Pour and Cam (2014), 72.4% (n = 47) of male nursing students (n = 65) studying university had not heard of TSE before and 89.4% (n = 42) did not know how to practise it, 26.2% (n= 17) were practicing TSE and 90.6% (n = 58) did not have any training related to TSE. Uğurlu et al. (2011), research it was determined that 5.9% (n = 38) of university students (n= 634) received information about TSE, and 17.37% (n= 111) practiced TSE. In the study of Bektaş et al. (2014), more than half of the male nursing students stated that they did not know how to practice TSE and only 11.6% of them were practicing TSE. According to the literature and our research results, it can be concluded that TSE is not widely known and applied among young men. The reason for this is thought to be related to the insufficient information provided in schools, media and society on the subject. Therefore, individuals may not have sufficient awareness.

In our study, the reason why more than half of the students (57.7%) did not practice TSE was because they did not know how to perform the examination. Among the reasons for not practicing TSE, reasons such as ignoring the examination, being afraid of the examination result, and feeling guilty about the examination were also observed. Similar to our research findings, also in the literature, it was determined that students did not know how to practice TSE, fear that unwanted/bad consequences may occur, feel guilty about TSE and feel embarrassed (Evans et al. 2006; Yılmaz et al. 2010). In Roy and

Cassan's study (2017), it was stated that young adult men did not find TSE important enough. These reasons also showed us the conclusion that the students did not have sufficient knowledge on the subject.

In our study, the mean scores of the TSE seriousness subscale of those with testicular cancer in their family were found to be higher than those without testicular cancer in their family. In a study by Çaman et al. (2014), it was determined that the vast majority of those with a family history of cancer applied to the cancer early screening diagnosis and training center. These results suggest that the presence of cancer in the family leads individuals to lead their lives with greater sensitivity and change their perspective on cancer. For this reason, those with testicular cancer in their family feel themselves at risk, and this increases do of caring and performing count health behaviors such as TSE. In our study, the mean scores of the TSE seriousness subscale of those who received information about testicular cancer were higher than those who did not. In the study of Doğan et al. (2016), unlike our findings, there was no difference between seriousness subscale mean scores between those who received information about testicular cancer and those who did not, but the self-efficacy subscale mean scores were higher in those who received information. In our study, the high scores of the informants show that getting information increases the motivation of individuals to perform healthy living behaviors.

In our study, it was found that as the grade level increased in education years, the mean scores of benefits and self-efficacy increased. High benefits and self-efficacy scores indicate that individuals have high adaptation to healthy behavior and that individuals will play a motivating role in achieving healthy lifestyle behavior. It is thought that as the education year level increases, the reason for the increase in benefits and self-efficacy score means is related to the individual's development and knowledge acquisition over time.

In our study, the mean score of barriers was higher for those who did not find it necessary to practice TSE regularly. If the barriers score increases, it means that the individual has more reasons for not practicing healthy lifestyle behavior.

In the literature, barriers to TSE; It was reported as being ashamed, afraid, finding funny, feeling guilty, thinking it was a sin (Altınel & Avcı, 2013; Özbaş et al. 2011; Pour & Cam, 2014).

Limitations

As the distance education process started with the emergence of the pandemic process, the data collection process was terminated, and therefore with a larger sample could not be studied.

Conclusion

This study shows that university students' awareness of TSE and their status of practising TSE is low. Although TSE is an inexpensive, easy to apply, not time-consuming and reliable method that has a very important role in the early diagnosis of testicular cancer, its application status is low. In order to increase the knowledge of individuals on this issue and to create awareness, it would be beneficial to add courses related to the health belief model to the curriculum, training of individuals by nurse in primary health care institutions and to distribute brochures on TSE.

Kaynakça

Albers, P., Albrecht, W., Algaba, F., Bokemeyer, C., Cohn-Cedermark, G., Fizazi, K., Horwich, A., Pilar Laguna, M. (2015). Guidelines on testicular cancer. European Urology, 60(2), 304-319

Altınel, B., Avcı, İ. A. (2013). Üniversite öğrencilerinin testis kanseri ve kendi kendine testis muayenesi hakkındaki bilgi, inanç ve uygulamaları. TAF Prev Med Bul, 12,365-370.

Barnes, R. J. (2000). Beliefs and practicies of active duty air force males related to testicular cancer and testicular self examination. Uniformed Services University of Health Sciences.Master of Science Thesis. Washington, USA.

Bektaş, M., İlya, Ö. Ş., Küsbeci, Ş., Bektaş, İ. (2014). Hemşirelik öğrencilerinin kendi kendine meme muayenesi, kendi kendine testis muayenesi ile HPV aşısı hakkında bilgi ve uygulamaları. Yıldırım Beyazıt Üniversitesi Sağlık Bilimleri Fakültesi Hemşirelik Derg, 2:1-11.

Çaman, Ö. K., Bilir, N., Özcebe, H. (2014). Ailede kanser öyküsü ve algılanan kanser riski, kanserden korunma davranışları ile ilişkili mi?. Fırat Med J, 19(2), 95-100.

Doğan, U., Atay, E., Öztürk, M., Yurdagül, G. (2017). Öğrencilerin kendi kendine testis muayenesi ile ilgili yaklaşımları. Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi, 5(3): 39-45.

Evans, R. E. C., Steptoe, A., Wardle, J. (2006). Testicular self-examination: change in rates of practice in European university students, from 13 countries, over a 10-year period. MHG, 3, 368-37.

Faydalı, S. (2018). Sağlık eğitimi alan erkek öğrencilerin kendi kendine testis muayenesi yapma durumları ve etkileyen faktörler. Turk J Clin Lab. 4: 313-320.

Göçgeldi, E., Koçak, N. (2010). Kendi kendine testis muayenesi konusunda genç erişkin erkeklere verilen eğitimin değerlendirilmesi. Gülhane Tıp Dergisi, 52: 270-5.

Gutema , H. Debela , Y., Walle , B., Reba , K., Wondiye, H. (2018). Testicular self examination among Bahir Dar University students: application of integrated behavioral model. BMC Cancer, 4;18(1):21.

Huyghe, E. (2008). Testicular cancer. International Encyclopedia of Public Health. Academic Press Elsevier Inc. 309-318.

Huyghe, E., Plante, P., Tonneau, P. F. (2007). Testicular cancer variations in time and space in Europe. Eur Urol, 51:621-628.

Kalan Farmanfarma, K. H., Mahdavifar, N., Mohammadian-Hafshejani, A., Salehiniya H. (2018). Testicular cancer in the world: an epidemiological review. World Cancer Research Journal, 5(4): e1180.

Kuzgunbay, B. (2014). The Status of testicular self-examination in the early diagnosis of testicular cancer: conjuncture in the world and in Turkey. Bulletin of Urooncology, 13:127-129

Khadra, A., Oakeshott, P. (2002). Pilot study of testicular cancer awareness and testicular selfexamination in men attending two South London general practise. Fam Pract. 19(3), 294-296.

Lechner, L., Oenema, A., Nooijer, J. (2002). Testicular self-examination (tse) among Dutch young men aged 15–19: determinants of the intention to practice TSE. Health Educ Res, 17(1):73-84.

Manecksha, R. P. Fitzpatrick, J. M. (2009). Epidemiology of testicular cancer. Journal Compilation Bju International. 104,1329–1333.

McCullagh, J., Lewis, G., Warlow, C. (2005). Promoting awareness and practice of testicular self-examination. Nursing Standard, 19, 41-49.

Özbaş, A., Çavdar, İ., Fındık, Ü. Y., Akyüz, N. (2011). Inadequate knowledge levels of Turkish male university students about testicular self-examination. Asian Pacific Journal of Cancer Prevention, 12, 919-922.

Pınar, G., Öksüz, E., Beder, A., Özhan Elbaş, N. (2011). Testis kanseri taramalarında Champion'un sağlık inanç modeli ölçeğinin Türkçe uyarlamasının güvenirlik ve geçerliliği. Tıp Araştırmaları Dergisi, 9(2), 89-96.

Pour, H., Çam, R. (2014). Erkeklerin kendi kendine testis muayenesi ve testis kanseri hakkında bilgi, tutum ve davranışlarının incelenmesi. Florence Nightingale Hemşirelik Dergisi, 22(1), 33-38.

Ramim, T., Mousavi, S. Q., Rosatmnia, L., Bazyar, A., Ghanbari, V. (2014). Student knowledge of Testicular cancer and self-examination in a medical sciences University in Iran. Basic & Clinical Cancer Research, 6(3): 7-11.

Roy, R. K., & Casson, K. (2017). Attitudes toward testicular cancer and selfexamination among Northern Irish males. American Journal of Men's Health, 11(2), 253-261.

Rudberg, L., Nilsson, S., Wikblad, K., Carlsson, M. (2005). Testicular cancer and testicular self examination: knowledge and attitudes of adolescent Swedish men. Cancer Nurs. 28(4): 256-262.

Siegel, R. L., Miller, K., Jemal, A. (2020). Cancer statistics 2020. Ca Cancer J Clin, 70:7–30

Turkish Republic Ministry of Health, General Directorate of Public Health, Turkey Cancer Statistics 2016. https://hsgm.saglik.gov.tr/depo/birimler/kanserdb/istatistik/Trkiye_Kanser_statistikleri_2016.pdf (Erişim tarihi:09.09.2020).

Thornton, C.P. (2016). Best Practice in teaching male adolescents and young men to perform testicular self-examinations: a review. Journal of Pediatric Health Care. 30(6),518-527

Ugboma, H. A. A., Aburoma, H. L. S. (2011). Public awareness of testicular cancer and testicular self-examination in academic environments: a lost opportunity. Clinics 66(7):1125-1128.

Ugurlu, Z., Akkuzu, G., Karahan, A. Beder, A., Dogan, N., Okdem, Ş., Kav, S. (2011) Testicular cancer awareness and testicular self-examination among university students. Asian Pacific J Cancer Prev, 12, 695-698

Uyar, M., Yıldırım, E. N., Şahin, T. K. (2019). Evaluation of testicular self-examination technique and testis cancer knowledge levels of final-year medical students. Bull Urooncol, 18:10-13.

Yalçınkaya, U., Çalışır, B., Uğraş, N., Filiz, G., Erol, O. (2008). Testis tümörleri: 30 yıllık arşiv tarama sonuçları. Türk Patoloji Dergisi, 24(2): 100-106.

Yıldız, T., Yeşildağ, E. (2015). Fertilitenin korunmasında kendi kendine testis muayenesi: olgu sunumu. Int J Basic Clin Med, 3(1):43-5.

Yılmaz, E., Kutlu Koca, A., Çeçen, D. (2009). Sağlık yüksekokulu öğrencilerinin testis kanseri ve kendi kendine testis muayenesi ile ilgili bilgi, tutum ve davranışları. Fırat Sağlık Hizmetleri Dergisi, 4(10): 72-85.

Yurt, S., Sağlam, R., Kadıoğlu, H. (2020). Knowledge, beliefs and practices of university students regarding testicular cancer and testicular self-examination. Clinical and Experimental Health Sciences. 10: 235-240.