DOI: 10.24938/kutfd.1371198 Kırıkkale Üniversitesi Tıp Fakültesi Dergisi 2023;25(3):522-530
Original Article *Özgün Araştırma*

THE EVALUATION OF THE KNOWLEDGE AND OPINIONS OF FACULTY OF MEDICINE TERM VI STUDENTS ON NOTIFIABLE DISEASES AND RELEVANT PRACTICES BASED ON THEIR PUBLIC HEALTH INTERNSHIP STATUS

Tıp Fakültesi Dönem 6 Öğrencilerinin Halk Sağlığı Stajı Alma Durumuna Göre Bildirimi Zorunlu Hastalıklar ve İlgili Uygulamalar ile İlgili Bazı Bilgi ve Görüşlerinin Değerlendirilmesi

Didem DAYMAZ[1] Necibe KURTULUŞ[2] Çağla GÜNEŞ[2] Talha Akif AKSOY[2] Gaye Nur BATIR[2] Mehmet Semih YAZICI[2] Zeynep Nesibe İMAN[2] Muhammed MUSAB AL[2] Zekiye NUR ÖZTÜRK[2] Ayça Naz ŞAHİN[2] Ünal YAĞMUR[2] Elif AKARSLAN[2] Metehan TAŞKIRAN[2] İsmail KOLTUK[2] İbrahim GÜNAY [3] Meral SAYGUN[1]

[1] *Department of Public Health, Faculty of Medicine, Kırıkkale University, KIRIKKALE, TÜRKİYE*
[2] *Faculty of Medicine, Kırıkkale University, KIRIKKALE, TÜRKİYE*
[3] *Konya Akşehir İlçe Sağlık Müdürlüğü, KONYA, TÜRKİYE*

ABSTRACT

Objective: The primary purpose of this study is to evaluate the knowledge and opinions of pre-physicians, term VI students in the 2021-2022 academic year, who participated and did not participate in a public health internship program appertaining to the notifiable diseases process.

Material and Methods: The participants of this study consisted of term VI students from 126 faculty of medicine. We used a data collection form, consisting of 25 questions in total, to assess the knowledge of term VI students on their socio-demographic characteristics, their educational background, and internship process, in addition to their opinions on the notifiable diseases. Considering knowledge questions, correct answers were worth one point each, while the other answers were worth zero points and evaluated over the total score. The data were collected through observation method of data collection.

Results: 48.7% of the 115 participants had completed their public health internship program A statistically significant difference was found between public health internship and having knowledge and being skilled in the notifiable diseases ($p<0.001$, $p=0.003$, respectively). The mean knowledge score of the students who had received their public health internship program obtained from propositions measuring the knowledge level of the participants on reporting notifiable diseases was 5.9±2.1, score was 4.3±2.1 for those who had not received the internship program in question. Based on the public health internship status, there was a statistically significant difference among the success points of the students ($p<0.001$).

Conclusion: The level of knowledge and awareness of pre-physicians having completed their public health internship program concerning the notification process was found to be higher than those who have not yet done their internships. Some required information and applications about the notifiable diseases should be taken into account while building undergraduate curriculums of the faculty of medicine and setting out the public health internship program.

Keywords: *Infectious disease reporting, disease notification, medical student, public health, undergraduate medical education*

ÖZ

Amaç: Bu araştırmayla tıp eğitimlerinin son senesinde olan 2021-22 eğitim öğretim yılı dönem 6 öğrencilerinin bildirim zorunlu hastalık bildirim süreciyle ilgili Halk Sağlığı Stajı almış ön hekimlerin ve henüz stajı almamış ön hekimlerin bu konudaki bilgi ve görüşlerinin değerlendirilmesi amaçlanmıştır.

Gereç ve Yöntemler: Kesitsel tipteki bu çalışmanın evrenini 126 tıp fakültesi dönem 6 öğrencileri oluşturmuştur. Veri kaynağı olarak, araştırmacılar tarafından hazırlanan; dönem 6 öğrencilerinin bazı sosyo demografik özelliklerinin, aldıkları eğitimi ve intörnlük süreci ile ilgili bazı bilgilerinin, bildirimi zorunlu hastalıklarla ilgili bazı görüşlerinin ve bilgilerinin değerlendirileceği 25 sorudan oluşan veri toplam formu kullanılmıştır. Bilgi sorularında her bir doğru cevap bir puan diğer cevaplar puansız olarak hesaplanmış ve toplam üzerinden değerlendirilmiştir. Veriler gözlem altında veri toplama yöntemiyle toplanmıştır.

Bulgular: Katılımcıların %48.7'si Halk Sağlığı stajı almıştır. Sırasıyla Halk Sağlığı stajı almış olma durumu ile bildirimi zorunlu hastalık kavramını bilme ve becerisine sahip olma durumları arasında istatistiksel olarak anlamlı bir fark bulunmuştur ($p<0.001$ ve $p=0.003$). Halk Sağlığı stajı alan öğrencilerin bildirimi zorunlu hastalıklar ve bu hastalıkları, durumları bildirme ve raporlama konusunda bilgi düzeyini ölçen önermelerden aldıkları bilgi puanı ortalamaları 5.9±2.1 iken, halk sağlığı stajı almayanlarda bu ortalama 4.3±2.1 olarak hesaplanmıştır. Halk sağlığı stajı alma durumuna göre başarı puanları arasında istatiksel olarak anlamlı bir fark tespit edilmiştir ($p<0.001$).

Sonuç: Bu çalışmanın sonuçlarına göre bildirimi zorunlu hastalık bildirim süreciyle ilgili halk sağlığı stajı almış ön hekimlerin, henüz stajı almamış ön hekimlere göre bilgi ve farkındalık düzeyi yüksek bulunmuştur. Tıp fakültesi mezuniyet öncesi eğitim müfredatlarının ve özellikle halk sağlığı stajı içeriği planlanırken bildirimi zorunlu bulaşıcı hastalıklar hakkındaki bilgilendirmelerin ve uygulamaların yer alması gerekliliği göz ardı edilmemelidir.

Anahtar Kelimeler: *Enfeksiyöz hastalık bildirimi, hastalık bildirimi, tıp öğrencisi, halk sağlığı, önlisans tıp eğitimi*

Correspondence / Yazışma Adresi: **Dr. Didem DAYMAZ**
Department of Public Health, Faculty of Medicine, Kırıkkale University, KIRIKKALE, TÜRKİYE
Phone / Tel: +905366883634 **E-mail** / E-posta: dokdemaz@hotmail.com
Received / Geliş Tarihi: 04.10.2023 **Accepted** / Kabul Tarihi: 28.11.2023

KÜ Tıp Fak Derg 2023;25(3):522-530
Doi: 10.24938/kutfd.1371198

INTRODUCTION

Communicable diseases are health problems that affect many people and can cause serious problems if precautions are not taken. For this reason, it is required to collect data regularly on communicable diseases on time and in the most appropriate way to evaluate them and to take prompt precautions in necessary cases (1,2). As is seen around the world, close monitoring of surveillance systems and reporting processes is of critical importance to ensure regular data flow regarding several applications toward the detection and follow-up of communicable diseases and disease burden and deaths caused, and the control of presumptive sources (3-5).

The Public Health Law No.1593 dated 24.04.1930 created a legal obligation in Türkiye to notify the identified communicable diseases (6). Another regulation on this matter is Communicable Diseases Surveillance and Control Principles Regulation No. 26537 dated 30.05.2007. With this regulation, for the prevention and control of the diseases, the notifiable communicable diseases list has been made, and communication and report lines have been established. The number of notifiable diseases has been determined as 81 in A, B, C, and D groups, with the latest update of the regulation (No. 31107 dated 22.04.2020) (7).

Although the notification of the diseases in the list has been imposed an obligation and the notification systems have been developed and optimized by the Ministry of Health, there are still problems in reporting today. Some deficiencies and errors in hospital records, lack of knowledge and skills of physicians in reporting, the feeling of inadequacy seen in physicians, and differences in the level of physicians' knowledge in terms of their fields of specialization may be included in these problems (8-10). Moreover, several physicians declared that they had not received any education regarding the notifiable diseases and their notification processes as well (9).

Due to the problems mentioned above, it is likely to confront some misapplications and a lack of data in communicable diseases notification systems and critical malfunctions in the filiation processes in health institutions and organizations. In this regard, it is important to eliminate the deficiencies of physicians in this matter and to provide them regular training opportunities. Considering the National Core Education Program, there is a statement related to the skills to be acquired by physicians in the pre-graduate process regarding the notification and reporting of the notifiable diseases: 'They implement the application including even intricate situations/cases' Besides, it is indicated that general practitioners should acquire this competence at the highest level (11). For this reason, faculty of medicine students acquire knowledge and qualifications on the notifiable communicable diseases throughout their undergraduate education. One of the internship programs requiring this kind of notification is the public health internship program. Term VI students prepare seminars related to notifiable diseases and their notification process, discuss them with their advisors based on field applications and some sample cases as well, and make on-site observations on the notification systems throughout primary care field visits, thanks to this program.

When taking into account the lack of knowledge and practical experience of physicians after they had completed their undergraduate education, the requirement of having the highest level of competence about the Core Curriculum of Specialty Branches, and the impact of internship programs on the students, we aimed in this study to evaluate the knowledge and opinions of pre-physicians about the notification process of the notifiable communicable diseases, according to the students' public health internship status.

MATERIALS AND METHODS

Design

The participants of this cross-sectional study consisted of term VI students from one hundred and twenty-six different faculty of medicine, except for 13 interns who had participated in a public health internship program and were involved as a researcher in this study in February 2022. We did not select a sample for this

KÜ Tıp Fak Derg 2023;25(3):522-530
Doi: 10.24938/kutfd.1371198

research. The reason behind this decision was that we aimed to reach the entire population. One hundred and fifteen participants admitted to taking part in this study, and thus the rate of the population reached was 91.2%.

Data collection tool

We used a data collection form consisting of 25 questions prepared by the researchers. Here are the number and content of the questions involved in this form, respectively: Three questions about the knowledge of term VI students on their socio-demographic characteristics such as age and gender, five questions about their opinions on their educational background and internship processes, seven questions about their practical experiences on the notifiable diseases, and ten propositions about their knowledge on the notification and reporting processes of the disease and cases in question. Each correct response to the ten propositions evaluating the participants' knowledge was one point. However, no points were given to the wrong answers and the option of responding with "I don't know". The data were collected in the first two weeks of February 2022 through the observation method of data collection. Kırıkkale University Non-Invasive Research Ethics Committee approval (Decision No: 2022.01.08) and dean's permissions were obtained to conduct the study.

Statistical analysis

Data entry and evaluation in the research were made using the “Statistics Package for Social Sciences” (SPSS 20.0) (Statistical Computer Package Program). Descriptive statistics in the analyses were stated as percentage, mean, median, quartiles, minimum-maximum values, and standard deviation. The conformity of the variables to the normal distribution was checked with Kolmogorov-Smirnov and Shapiro-Wilk tests. Chi-square tests were used to evaluate the difference between groups formed by categorical variables. The Mann-Whitney U test was used for the comparison of independent two-group continuous variables that did not fit the normal distribution, and the Kruskal-Wallis test for the comparison of three or more variables. Type 1 error value less than 5% was accepted as statistically significant.

RESULTS

The mean age of the 115 students participating in the research was 25.3±2.0, and the median age was 25. The maximum and minimum ages were 39 and 23, respectively. 60.9% of the participants were female, and 95.7% were citizens of the Republic of Türkiye. The success rates of the participants when they were undergraduate at the Faculty of Medicine were as follows: 2.6% very good, 37.4% good, 47.0% fair, 12.2% poor, and 0.9% very poor. On the other hand, the course attendance rates of the participants were as follows: 20.9% very good, 40.9% good, 27.8% fair, 8.0% poor, and 1.7% very poor, according to their statements (Table 1).

Table 1: Distribution of opinions of faculty of medicine term VI students on socio-demographic characteristics and educational background.

Characteristic		n	%
Gender	Female	70	60.9
	Male	45	39.1
Nationality	Republic of Türkiye	110	95.7
	Other	5	4.3
Faculty of medicine success status	Very good	3	2.6
	Good	43	37.4
	Fair	54	47.0
	Poor	14	12.2
	Very poor	1	0.9
Faculty of medicine attendance status	Very good	24	20.9
	Good	47	40.9
	Fair	32	27.8
	Poor	10	8.7
	Very poor	2	1.7

48.7% of the students stated that they had completed a public health internship program. 51.8%, 33.9%, and 14.3% of these participants evaluated their attendance statuses as very good, good, and fair, respectively. However, no participants were responding with poor or very poor (Table 2).

KÜ Tıp Fak Derg 2023;25(3):522-530
Doi: 10.24938/kutfd.1371198

Table 2: Public health internship program participation and attendance statuses of faculty of medicine term VI students

Characteristic		n	%
Public health internship program Participation status	Those participating a public health internship program	70	48.7
	Those not participating a public health internship program	45	51.3
Public health internship program Attendance status	Very good	29	51.8
	Good	19	33.9
	Fair	8	14.3

95.6% of the participants stated that they had heard of the term notifiable disease, while only four (3.5%) participants expressed that they had previously reported a notifiable disease.

88.7% of the participants responded to the question "Have you ever heard the term notifiable disease?" by saying yes; however, 11.3% answered no. The response to the same question of all participants completing their public health internship program and 78.0% of those not receiving this training was yes. We found a statistically significant difference between the status of receiving a public health internship program and of having heard of the term notifiable disease (p<0.001) (Table 3).

Table 3: Distribution of the status of having heard of the term notifiable disease of faculty of medicine term VI students, according to their public health internship program participation status

	Status of having heard of the term notifiable disease						
	Yes		No		Total		
Public Health Internship Program Participation Status	n	%	n	%	n	%	p* value
Yes	56	100.0	-	-	56	100.0	<0.001
No	46	78.0	13	22.0	59	100.0	
Total	102	88.7	13	11.3	115	100.0	

*Chi-square test

The rate of the participants responding to the question “Do you think you can report legally notifiable diseases and cases?” was as follows: 12.2% yes, 61.7% no, and 26.1% neutral, respectively. On the other hand, the rate of the participants having and not having received a public health internship program was as follows: 19.6% and %5.1% yes, 46.4% and 76.3% no, and 33.9% and 18.6% neutral, respectively. A statistically significant difference was detected between the status of receiving a public health internship program and of having competence in the notification and reporting of legally notifiable diseases and cases (p=0.003) (Table 4).

KÜ Tıp Fak Derg 2023;25(3):522-530
Doi: 10.24938/kutfd.1371198

Table 4: Distribution of faculty of medicine term vi students' opinions on whether they have competence in the notification and reporting of the notifiable diseases, according to their public health internship program participation status

	Competency in the notification and reporting of the legally notifiable diseases and cases								
	Yes		No		Neutral (Neither agree nor disagree)		Total		
Public Health Internship Program participation status	n	%	n	%	n	%	n	%	*p value
Yes	11	19.6	26	46.4	19	33.9	56	100.0	0.003
No	3	5.1	45	76.3	11	18.6	59	100.0	
Total	14	12.2	71	61.7	30	26.1	115	100.0	

*Chi-square test

89.8% of those who had not received a public health internship program stated that this kind of program contributes to the notification and reporting knowledge of the notifiable diseases and cases; however, the rate was 75.0% for those having received the training in question.

Considering the period before the internship, nine (7.8%) participants in this study stated that they had received courses on the notification and reporting of notifiable diseases and cases. The number of participants expressing relevant terms had been mentioned in their courses was as follows: 5 participants in Term III Public Health Course, 1 participant in Microbiology Course, and 2 participants in Pediatric Course.

What the responsibilities of physicians are for the notification and reporting of notifiable diseases and cases was another question posed to the participants. 75.7% of the participants responded to this question by stating that they are obliged to report notifiable diseases as soon they make a diagnosis. 8.7% of the participants stated that physicians are not responsible; however, 7.8% consider physicians may decide whether they report notifiable diseases and cases based on their will. Apart from these, the rate of the neutral participants was the same as the last one (Table 5).

Table 5: Distribution of faculty of medicine term VI students' opinions on the responsibility of physicians for the notification and reporting of notifiable diseases and cases

What do you think about the responsibilities of physicians for the notification and reporting of notifiable diseases and cases?	n	%
I don't think physicians are responsible for notifiable diseases and cases.	10	8.7
I consider that physicians may decide whether they report notifiable diseases and cases.	9	7.8
I believe that physicians are obliged to report notifiable diseases and cases as soon as they make a diagnosis.	87	75.7
Neutral (Neither agree nor disagree)	9	7.8
Total	115	100.0

KÜ Tıp Fak Derg 2023;25(3):522-530
Doi: 10.24938/kutfd.1371198

82.1% and 69.5% of the participants who had received and not received a public health internship program stated that physicians are obliged to the notification, respectively. There was no statistically significant difference between the opinions of physicians on reporting obligation and the status of having received a public health internship program (p=0.114).

As shown in Table 6 when the responses of the participants to the propositions were evaluated, knowledge questions about notification requirements and which institutions are responsible for were answered with a higher percentage. On the other hand, the percentages of the other questions related to notifiable disease groups, their features, and which institutions and organizations are responsible for them were found to be lower (Table 6).

The mean knowledge score of the students who had received their public health internship program obtained from propositions measuring the knowledge level of the participants on reporting notifiable diseases was 5.9±2.1, while this score was 4.3±2.1 for those who had not received the internship program in question. A statistically significant difference was found between the knowledge scores of the participants according to their public health internship statuses (p<0.001) (Table 7).

Table 6: Percentage distribution of the faculty of medicine term VI students' responses to the propositions regarding notification and reporting of notifiable diseases and cases

Propositions	Correct answer	Incorrect answer	Do not know the answer
Notifiable diseases are divided into 4 groups.	40.0	0.9	59.1
Group D notifiable diseases can be reported from any health institution.	6.1	14.8	79.1
Notifiable diseases are reported through the system with Form 014.	25.2	0.9	73.9
Cancers are in group C notifiable diseases.	21.7	9.6	68.7
Group B notifiable diseases (such as polymyelitis) must be reported to the Ministry of Health directly and immediately due to having great importance even a single case was seen.	32.2	7.0	60.9
Skin rashes in childhood are some of the notifiable diseases.	73.0	6.1	20.9
University hospitals are not obliged to report notifiable diseases.	80.0	0.9	19.1
The reason behind the reporting of notifiable diseases is only to detect the number of the diseases.	83.5	2.6	13.9
Filiation is carried out in necessary cases by the provincial/district directorate of health and public health center employees of the relevant unit.	79.1	0.9	20.0
Reporting of notifiable diseases and cases are enacted by laws and circulars.	73.0	0.9	26.1

KÜ Tıp Fak Derg 2023;25(3):522-530
Doi: 10.24938/kutfd.1371198

Table 7: Mean±standard deviation, median, and maximum and minimum points of faculty of medicine term VI students about reporting notifiable diseases and cases given below, according to public health internship program participation status

	Mean±standard deviation and median values of reporting notifiable diseases and cases given below			
	Mean±standard deviation	Median	Min-Max	*p value
Those having received a public health program	5.9±2.1	6.0	0-10	<0.001*
Those not having received a public health program	4.3±2.1	5.0	0-8	

*Mann-Whitney U Test

DISCUSSION

Considering the reasons behind deaths, communicable diseases remain the most common ones today (12). It is vital to provide all kinds of public health-oriented practices and training at the international level to not only prevent communicable diseases but also control them. For this reason, implementing effective policies on the reporting and control of these diseases is required. In this process, the attitudes of physicians are of great importance (1).

Certain protocols and regulations are the primary tools in our country and almost all around the world to struggle with communicable diseases. However, it is an undeniable fact that physicians constitute one of the most substantial components of this process (1,7). Particularly the attitudes of physicians on how to manage this process as well as the level of knowledge on reporting of notifiable diseases have a direct impact on this matter.

Four hundred general practitioners who attended medical conferences in Iran in 2009 were asked for their opinions on reporting of notifiable communicable diseases, the reasons for non-compliance with notification requirements, and suggestions for improving compliance with reporting. 88% of the participants expressed that they had never heard of any notifiable diseases during their careers. It has been determined that one of the major obstacles in front of reporting is the lack of knowledge on notifiable communicable disease list, and notification requirements as well (13).

In another study conducted in South Africa on the compliance of healthcare personnel and physicians with the notifiable diseases surveillance system, 58% of the 919 participants stated they had been diagnosed a notifiable disease before, while 92% of them expressed they had reported these diseases. However, it has been determined that only 51% of these notifications have reached the Ministry of Health correctly. The compliance of physicians and healthcare personnels with the surveillance system in South Africa was found to be insufficient in general (14).

In another cross-sectional study conducted in six hospitals, which evaluated the knowledge and attitudes of Jordanian physicians towards the surveillance of communicable diseases, only 27.4% of 223 physicians stated that they had received training on this matter. Many physicians had inadequate knowledge on the surveillance and reporting of communicable diseases and therefore participating in a training program is of vital importance (15).

As in the world, research in Türkiye also emphasizes the need for education. Korkmaz et al. conducted a study at Dicle University Faculty of Medicine in 2015. In this study 85.7% of 105 physicians considered that their knowledge of notifiable communicable diseases was inadequate (10).

In a cross-sectional study conducted in our country, in which the attitudes toward reporting communicable diseases of a group of infectious diseases and clinical microbiology residents and specialists were evaluated, more than 70% of 251 participants stated that they had received training related to notifiable communicable diseases. Besides, only 62.5% of the participants expressed that they had reported all notifiable diseases encountered. However, more than one-fourth of the

KÜ Tıp Fak Derg 2023;25(3):522-530
Doi: 10.24938/kutfd.1371198

participants stated they had entered another diagnosis in order not to fill out the notification form. More than 40% of the physicians participating in the study declared that they did not know what to do after the notification process, and more than half of the participants indicated that they did not consider they had applied the procedure in a suitable way (9). The lack of knowledge and training even observed in physicians who are particularly familiar with the diagnosis and treatment of communicable diseases points out how necessary the training received in the pre-graduate period is.

The process of struggling with infectious diseases is critical in terms of reporting, filiation in the field and filiation to a patient who contacted an infected person, and patient follow-up and contact tracing. Not to mention the role of physicians in this process (2).

It was observed in another cross-sectional study evaluating personnels in charge of the provincial communicable disease control department affiliated with the Ministry of Health that the majority of those working in a managerial position were physicians. Furthermore, physicians in this field had frequently been relocating, and they were semi-skilled and experienced. Based on this, during medical education, providing training for notifiable diseases and certain procedures to be followed and for the responsibilities of physicians is considered necessary (16).

The knowledge level of the participants about the reporting mechanisms and algorithm of notifiable communicable diseases was evaluated in a study conducted with a group of 144 medical faculty students in 2020, consisting of term III and VI students. Compared to term III students, the knowledge level of term VI students about notifiable diseases was found to be higher. However, the mean knowledge score was inadequate (17).

In conclusion, It is obvious that the contribution of the internship period to raising awareness about notifiable diseases and their notification processes is very substantial since intern doctors are likely to see patients and make active notifications based on their job descriptions. In this sense, the importance of public health internship in terms of observing field applications is also supported by our study. According to the results, all those who participated in a public health internship program have heard of the term notifiable communicable disease. Having heard of this concept and having the competence to notify and report on this issue has made a statistically significant difference in a positive way with participating in a public health internship program. However, considering the percentage of neutral students on the point of feeling competent, some required information and applications about the notifiable diseases should be taken into account while building undergraduate curriculums of the faculty of medicine and setting out the public health internship program. Besides, public health internship programs should be supported by notification processes particularly in clinical branches.

It is seen that receiving a public health internship program made a statistically significant difference in the answers given to the propositions, which had been prepared in compliance with the topics discussed and demonstrated in this program and field visits. Nevertheless, it has been concluded that trainings on notifiable communicable diseases should be updated as supported in the literature in order to reflect this improvement on the skills and practices of physicians in their professional lives.

Conflict of Interest: The author have indicated no conflicts of interest regarding the content of this article.

Researchers Contribution Rate Statement: Concept/Design: DD; Analysis/Interpretation: DD, İK, ÇG, ZNÖ, MT; Data Collection: NK, ÇG, TAA, GNB, MSY, ZNİ, MMA, ZNÖ, ANŞ, ÜY, MT, İK

Writer: DD, NK, MS; Critical Review: DD, MS; Approver: DD, MS, NK, ÇG, TAA, GNB, MSY, ZNİ, MMA, ZNÖ, ANŞ, ÜY, MT, İK.

Support and Acknowledgment: No financial support was received.

Ethical Committee Approval: Kırıkkale University Non-Invasive Research Ethics Committee approval (Decision No: 2022.01.08) and dean's permissions were

KÜ Tıp Fak Derg 2023;25(3):522-530
Doi: 10.24938/kutfd.1371198

obtained to conduct the study. Informed consent form of the participants was also obtained.

REFERENCES

1. Janati A, Hosseiny M, Gouya MM, Moradi G, Ghaderi E. Communicable disease reporting systems in the world: A systematic review article. Iran J Public Health. 2015;44(11):1453-65.
2. Republıc Of Turkıye Mınıstry Of Health General Directorate Of Public Health. Accessed date: 01 January 2023 / https://hsgm.saglik.gov.tr/dosya/mevzuat/genelge/Bulasici-Hastaliklar-ile-Mucadele-Rehberi-Genelgesi-2017-11.pdf
3. Dong S, Ren X, Zhang C, Geng M, Zhu Y, Shi L et al. Morbidity analysis of the notifiable infectious diseases in China, 2018. China CDC Weekly, 2019;1(4):47-53.
4. Australia's notifiable disease status, 2016: Annuel report of the National Notifiable Diseases Surveillance System, Australian Goverment Department of Health, Communicable Diseases Intelligence. 2021;45.
5. Martin C, Pastoret PP, Brochier B, Humblet MF, Saegerman C. A survey of the transmission of infectious diseases/infections between wild and domestic ungulates in Europe. Veterinary Research. 2011;42(1):1-16.
6. The Public Health Law No.1593 dated 24 April 1930
7. Communicable Diseases Surveillance and Control Principles Regulation No. 26537 dated 30 May 2007.
8. İbrahim İE, Uçku R. Assessment of communicable disease notification in a university hospital, 2005-2008. Dokuz Eylül Üniversitesi Tıp Fakültesi Dergisi. 2012;26(1):1-7.
9. Uzun SU, Kalkan A. Attitudes and behaviors of ınfectious diseases and clinical microbiology assistants and specialists regarding mandatory ınfectious disease notification (in Turkish), Flora Enfeksiyon Hastalıkları ve Klinik Mikrobiyoloji Dergisi. 2020;25(3):369-71.
10. Korkmaz M, Uysal C, Durmaz U, Ezin Ö, Deveci Ö, İpek D et al. The knowledge of physicians about notifiable diseases in a university hospital. Dicle Tıp Dergisi. 2015:42(4):427-31.
11. Yükseköğretim Kurulu (YÖK). Accessed date: 03 January 2023 / https://www.yok.gov.tr/Documents/Kurumsal/egitim_ogretim_dairesi/Ulusal-cekirdek-egitimi-programlari/mezuniyet-oncesi-tip-egitimi-cekirdek-egitimi-programi.pdf
12. World Health Organization (WHO). Accessed date: 06 January 2023 / https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death
13. Nader F, Askarian M. How do Iranian physicians report notifiable diseases? The first report from Iran. Am J Infect Control. 2009;37(6):500-4.
14. Benson FG, Levin J, Rispel LC. Health care providers' compliance with the notifiable diseases surveillance system in South Africa. PLoS One. 2018;13(4):e0195194.
15. Abdulrahim N, Alasasfeh I, Khader YS, Iblan I. Knowledge, awareness, and compliance of disease surveillance and notification among Jordanian physicians in residency programs. The Journal of Health Care Organization, Provision, and Financing. 2019:56:0046958019856508.
16. Durusoy R, Emek M, İnci R. Evaluation of the workforce for the surveillance and control of communicable diseases of provincial health directorates in Turkey. Turkish Journal of Public Health. 2011;9(2):70-85.
17. Çubukçu E, Metin BC, Akın AN. Knowledge levels on notifiable communicable diseases (cds) of grade 3 and grade 6 students of a faculty of medicine: A descriptive study. Sağlık ve Toplum Dergisi. 2020;30(2):46-53.