Araştırma Makalesi/Research Article

Acil Servise Başvuran Hastaların Akılcı İlaç Kullanımı Konusundaki Tutum ve Davranışları

The Attitudes and Behaviours of the Patient Admitted to the Emergency Department about Rational Drug Use

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Özet

Amaç: Bu araştırma; acil servise başvuran hastaların akılcı ilaç kullanımı konusundaki tutum ve davranışlarının incelenmesi amacıyla yapılmıştır. **Yöntem:** Kesitsel, tanımlayıcı tipte yapılan bu araştırmaya, Haziran-Eylül 2018 ayları arasında bir Üniversite Hastanesi Acil Servisi'ne başvuran 388 birey katılmıştır. Araştırmanın verilerinin toplanmasında araştırmacılar tarafından literatür doğrultusunda hazırlanan anket formu kullanılmıştır. Üniversitenin Klinik Araştırmalar Etik Kurulu'ndan onay ve kurumdan yazılı izin alınmıştır. Hastalara çalışmanın amacı hakkında bilgi verildikten sonra yazılı olurları alınmıştır. **Bulgular:** Bireylerin %71,6'sının son üç ay içinde reçetesiz ilaç kullandığı, %56,1'inin reçetesiz analjezik kullandığı, %94,1'inin ise kullandığı reçetesiz ilaçlarla ilgili herhangi bir yan etki yaşamadığı belirlenmiştir. Katılımcıların çoğunlukla evlerinde analjezik, soğuk algınlığı ve antipiretik ilaçları bulundurdukları tespit edildi. Bireylerin %35,5'inin hekimin vermiş olduğu ilaçları hekim veya eczacının önerdiği süre, %32,1'inin ilaç bitene kadar, %31,6'sının şikayeti geçene kadar kullandığı; %80,5'inin yanlış ilaç kullanım durumlarında, %78,3'ünün ise ilaca bağlı yan etki yaşadığı durumda hekime başvurduğu, %71,1'inin kendi hastalığına iyi gelen kullandığı bir ilacı başkasına önermediği, %62,3'ünün ise basında reklamı yapılan ürünleri kullanmadığı saptanmıştır. **Sonuç:** Araştırma sonuçlarına göre katılımcılarda akılcı olmayan ilaç kullanımı davranışları hala mevcuttur. Akılcı ilaç kullanımı konusunda farkındalık yaratmak için örgün ve yaygın eğitim fırsatları geliştirilmeli ve sürekli kullanılmalıdır. Toplumun duyarlılığını artırmak ve bu konudaki olumlu tutum ve davranışları kazanmak için takiplerin sürdürülmesi önerilmektedir.

Anahtar Kelimeler: Akılcı ilaç kullanımı, tutumlar, davranış, toplum sağlığı, hemşirelik.

Abstract

Objective: The aim of this study was to investigate the attitudes and behaviours of the patients admitted to the emergency department about rational drug use. **Method:** In this cross-sectional descriptive study, 388 individuals who applied to Emergency Department of a University Hospital between June and September 2018 were included. Questionnaire form prepared by the researchers in accordance with the literature was used in the data collection. Approval from the university's Clinical Trials Ethics Committee, and written permission from the institution were obtained. After the patients were informed about the purpose of the study, their written consents were obtained. **Results:** It was determined that 71.6% of the individuals used unprescribed drugs within the last three months, 56.1% used analgesic without prescription, and 94.1% experienced no side effects related to the unprescribed drugs they used. It was found that the participants mostly kept analgesics, colds medications and antipyretics at their homes. It was determined that 35.5% of the individuals used the drugs given by the physician within the time recommended by the physician or pharmacist, 32.1% used them until the drugs were used up, 31.6% used them until their complaints were over; 80.5% applied to a physician in wrong drug uses, 78.3% consulted a physician in case of drug-related side effects, 71.1% did not recommend a drug which was good for their illness to someone else, and 62.3% did not use the products advertised in the media. **Conclusion:** According to the results of the study, irrational drug use behaviors are still present in the participants. To raise awareness on rational drug use, formal and non-formal education opportunities should be developed and used continuously. In order to increase the sensitivity of the society and gain positive attitude and behaviour on this issue, it is recommended to maintain the follow-ups.

Key words: Rational drug use, attitudes, behavior, community health, nursing.

INTRODUCTION

The modern understanding of health requires the protection from diseases and the development of corresponding strategies (Turkey Ministry of Health, 2011a). However, despite every effort, people can lose their health and get sick from time to time. Therefore, people need a number of medical interventions. Drug use has also an important place in medical treatment (Karaman, 2015).

Drug is a product used for prevention, diagnosis, and treatment of diseases, elimination of symptoms and stopping the progression of the disease (WHO, 2011). Drug has an important place in human and public health since it is a substance that can stop the problems that threaten human health and life with its correct usage; whereas, it can also put an end to life with its misuse (Pınar, 2012). Because the drug is one of the products the consumer has the least information about. Although the necessary information is provided on the drug box/packaging and in the prospectus/user manual, the correct drugs usage of the patients requires consultation of the experts (Toklu et al., 2010).

As in all parts of the world, non-rational drug use is an important problem in Turkey (Sürmelioğlu et al., 2015). This is associated with many factors such as physicians directing patients to unnecessary drug use, easy access of the patients to drugs through non-physician ways, the patients' using any one of their existing drugs from previous experiences and taking drug with the recommendation of their relatives. In addition, these incorrect behaviours can also continue in the next stages after the doctor visit. Situations like not using the drugs in the dose and frequency recommended by the physician and the discontinuation of the drugs before the prescribed period due to the disappearance of the symptoms do not only cause negative medical results, they also increase the number of unused drugs kept at home (Sağır & Parlakpınar, 2014).

The drug use that is not managed as required may lead to various health problems (Pınar, 2012). These problems include effects such as increase in morbidity and mortality rates, increased risk of side effects of drugs, decreased accessibility to basic medicines as a result of the misuse of resources, increased social cost of treatment based on the resistance that may develop against emergency and basic drugs (Sürmelioğlu, 2015). In addition, high drug expenditures cause a heavy burden to the state and cause economic problems (Yılmaztürk, 2013; Sürmelioğlu, 2015).

The basic approach in the rational use of drugs is that it is necessary to use the drug in a rational and correct manner according to the condition of the disease and the patient at the right time, in the required quality, in needed amount and in the way needed (İskit, 2012). The goal in rational drug use is to decrease the health expenses by increasing the efficiency and safety in health services. One of the other goals in rational drug use is the prevention of problems caused by the wrong drug use of the society. While fulfilling these issues, it is also required to reduce the economic and social burden on society (Kuş & Durna, 2016).

Interventions conducted about rational drug use have a significant effect on preventing many problems that may arise due to lack of safe and effective use of drugs. However, in order to correct and limit the irrational drug use, it is necessary to determine the type, amount and reasons of irrational drug use. Then appropriate strategies for intervention should be defined (Atif et al., 2016). This study was conducted to investigate the attitudes and behaviours of the patients admitted to the emergency department about rational drug use.

METHODS
Study design and population

This cross-sectional and descriptive study included a total of 388 patients who applied to the Emergency Service of Erciyes University Health Application and Research Centre between June and September 2018. The criteria for participant selection were as follows: able to speak and understand Turkish, over 18 years of age, no hearing problem, unimpaired time and place orientation, and volunteer to participate in the study. Individuals who did not want to participate in the study and had recall problems were excluded from the study. In order to determine the study sample, calculating the sample size with a finite population was made. This calculation was based on the study of Büyükturan and Büyükturan (2017). According to this calculation, it was concluded that 379 individuals should be included in the study. Considering possible data loss, the study was completed with a total of 388 individuals.

Data collection

Patient information form was used to collect the data of the study. The form prepared by the researchers by examining the relevant literature (Karakurt et al., 2010; Toklu et al., 2010; Sürmelioğlu et al., 2015; Hatipoğlu & Özyurt, 2016; Dağtekin et al., 2018) is composed of questions containing information such as socio-demographic characteristics and chronic diseases of the

individuals, the drugs they use, buying drug without prescription and suggesting it to the others. The researchers filled the patient information form by conducting face-to-face interview with the patients and controlling the patient file.

Data analysis

The data of the study were evaluated in IBM SPSS Statistics (Statistical Package for the Social Sciences) packaged software. For descriptive statistics, unit number (n), percentage (%), mean ± standard deviation (mean±SD) values were used.

Ethics

The data of the study were collected by obtaining written permission from Erciyes University Clinical Trials Ethics Committee (2018/239) and from the institution and by getting the written informed consents of the patients selected to the sample. In order to determine the operability of the data collection forms to be used in the study, pilot study was administered to 10 patients staying in the Emergency Service. Patient information form was evaluated according to the result of pilot study and no change was made. Therefore, the individuals in the pilot study were included in the study.

RESULTS

The mean age of the participants was 29.1±9.2 years. 56.2% of the individuals were male, 85.3% were living in the city, 70.6% of them were in the middle income and 58.8% were university graduate (Table 1).

Table 1. Demographic characteristics of participants

Characteristics	n (%)
Age (X±SD)	29.1±9.2
Gender	
Female	170 (43.8)
Male	218 (56.2)
Living place	
City	331 (85.3)
Town	49 (12.6)
Village	8 (2.1)
Income status	
High	22 (5.7)
Middle	274 (70.6)
Low	92 (23.7)
Education	
Literate	21 (5.4)
Primary education	52 (13.4)
High school	87 (22.4)
University	228 (58.8)

There was no chronic disease in 80.2% of the participants and in the family members of 69.1%, 79.4% did not have a regular drug and 60.8% did not have any health personnel among their relatives. It was found that 62.0% of the individuals consulted a physician; 7.5% of the patients tried to treat themselves with the drugs in the house, 6.9% tried herbalism methods, and 2.7% tried to treat themselves by asking those who had problems before similar to their illness (Table 2).

Table 2. Chronic disease and treatment characteristics

Characteristics	n (%)
Presence of chronic disease	
Yes	77 (19.8)
No	311 (80.2)
The presence of chronic disease in family members	
Yes	120 (30.9)
No	268 (69.1)
Regular Drug Use Status	
Uses	80 (20.6)
Can not use	308 (79.4)
Health personnel status of relatives/ neighbor	
Yes	152 (39.2)
No	236 (60.8)
What to do in case of disease*	

Consult a physician	339 (62.0)
Consult a pharmacist	36 (6.5)
Consult a nurse or health officer	62 (11.3)
Consult a familiar / neighbor / relative	10 (1.8)
Using herbal treatment methods	38 (6.9)
Treat themselves with the drugs in the house	41 (7.5)
Ask those who have a similar illness	15 (2.7)
Others	5 (0.9)

* **Given more than one answer**

It was found that 80.2% of the individuals stated that they took all the drugs prescribed by the doctor and 70.5% of those who did not take all the prescribed drugs said that they did not take the drugs at home. Among the individuals who participated in the study, 91.0% stated that they wanted to know the properties of the drugs they used, 39.3% received information about the prescribed drugs from a pharmacist, and 36.4% received that information from a physician. 35.5% of the individuals used the drugs given by the physician within the time recommended by the physician or pharmacist; 80.5% applied to a physician in wrong drug uses, 78.3% consulted a physician in case of drug-related side effects, 71.1% did not recommend a drug which was good for their illness to someone else, and 62.3% did not use the products advertised in the media for treatment purposes (Table 3).

Tablo 3. Drug use characteristics

Drug Use Characteristics	n (%)
The status of taking all of the drugs prescribed by the doctor	
Taking them all	311 (80.2)
Not taking them all	77 (19.8)
Reason for not taking all prescribed drugs*	
Not taking those that are already available at home	55 (70.5)
Not taking the unnecessary ones	19 (24.3)
Not buying expensive ones	4 (5.1)
The status of wanting the properties of the drugs they use	
Wanted to know	353 (91.0)
Do not want to know	35 (9.0)
Where they obtained information about the prescribed drug*	
Pharmacist	244 (39.3)
Physician	226 (36.4)
Nurse	43 (6.9)
Internet	107 (17.2)
How they use the drugs given by the physician*	
I use it until it is over	133 (32.1)
I use until my complaint disappear	131 (31.6)
I use it for the time recommended by the physician or pharmacist	147 (35.5)
Other	3 (0.7)
What they do when they realize that they have used wrong drugs*	
Trying to vomit	31 (10.4)
Consulting their relatives	16 (5.3)
Consulting the pharmacist	11 (3.6)
Consulting the physician	240 (80.5)
What they do when any side effect occurs*	
Stopping using the drug	44 (15.3)
Consulting the physician	224 (78.3)
Continuing using the drug/ Drug replacement/ Seeking solution by themselves	8 (2.8)
Consulting the pharmacist	5 (1.7)
Doing nothing	5 (1.7)
The status of recommending the drug that was good for their own illness to other people	
Recommending	112 (28.9)
Not recommending	276 (71.1)
The status of using the products advertised in the media (television, radio, newspaper etc.) for treatment purpose*	
Using in consultation with the physician	123 (30.4)
Using in consultation with the pharmacist	22 (5.4)
Using after asking someone they know or neighbour who used it before	7 (1.7)
Not using them	252 (62.3)

When the drug use characteristics were examined, it was seen that 52.2% of the individuals took analgesics from pharmacies without prescription, 71.6% used unprescribed drugs within the last three months, 56.1% used analgesic without prescription, 52.7% used this drug with their own decision, and 94.1% experienced no side effects related to the unprescribed drugs they used (Table 4).

Table 4. Unprescription drug use characteristics

Drug Use Characteristics	n (%)
Which drugs are taken the most common without a prescription *	
Analgesic	334 (52.2)
Antipyretic	128 (20.0)
Skin creams	55 (8.6)
Antibiotic	18 (2.8)
Vitamin	57 (8.9)
Hormone	3 (0.4)
Circulatory system drugs	2 (0.3)
Digestive system drugs	12 (1.8)
Urinary system drugs	10 (1.5)
Sedatives / nervous system drugs	2 (0.3)
Others	18 (2.8)
Used unprescribed drugs within the last three months	
Yes	278 (71.6)
No	110 (28.4)
What are the unprescribed drugs used within the last three months *	
Analgesic	252 (56.1)
Cold medication	77 (17.1)
Antacid	12 (2.6)
Muscle relaxants	29 (6.4)
Antibiotic	28 (6.2)
Skin creams	21 (4.6)
Vitamin	26 (5.7)
Others	4 (0.8)
Who suggested unprescribed drugs*	
Family members	33 (10.5)
Friend	27 (8.6)
Health personnel	73 (23.3)
Take their own decision	165 (52.7)
Relative/ Neighbor	12 (3.8)
Any side effects due to unprescribed drugs used	
Yes	17 (5.9)
No	271 (94.1)

* Given more than one answer

Participants said that they kept analgesics (33.2%), common cold medications (20.4%) and antipyretics (17.8%) at home; they thought that every house must have analgesics (24.8%), antipyretics (16.7%) and common cold medications (15.3%); they stated that they kept the drugs remaining from a treatment of family members to be used when necessary (42.4%), disposed them (25.5%), gave to a health institution (20.5%), kept an average of 1-5 boxes of drugs in their home (45.8%), and paid attention on the expiration dates of the drugs at home before reusing (39.2%) (Table 5).

Table 5. The characteristics of the individuals about keeping drugs at home

Drug Use Characteristics	
	n (%)
How many boxes drugs are their home?	
None	90 (23.2)
1-5	178 (45.8)
6-10	54 (13.9)
More than 10	66 (17.0)
Which drugs are certainly stocked at home?*	

Analgesics	374 (33.2)
Antibiotics	110 (9.7)
Cold medications	230 (20.4)
Cough syrups	119 (10.5)
Antipyretic	201 (17.8)
Skin creams	90 (8.0)
Which drugs should be absolutely found in every home? *	
Do not need to have drugs at home	16 (1.2)
Analgesic	314 (24.8)
Antibiotic	72 (5.6)
Antiinflammatory	86 (6.7)
Cold medication	194 (15.3)
Cough syrups	103 (8.1)
Antipyretic	212 (16.7)
Dressing materials	191 (15.0)
Stomach Medicine	78 (6.1)
What do the drugs remaining from a treatment of family members?*	
Store drugs at home to use when needed	186 (42.4)
Give to the health institution	90 (20.5)
Give to the pharmacy	32 (7.3)
Give to the acquaintances	13 (2.9)
Junking	112 (25.5)
Others	5 (1.1)
If the drug is available at home; what to consider when reusing these? *	
Compliance to the disease	294 (36.3)
Attention on the expiration dates of the drugs	318 (39.2)
Make sure that the drug forms such as syrup, suspension and eye drops do not exceed the periods stated in the instructions for use	167 (20.6)
Attention on that the packaging is intact	26 (3.2)
Doesn't pay any attention	5 (0.6)

* **Given more than one answer**

DISCUSSION

In this study which would also allow us to see how the policies and projects in rational drug use affect the habits and behaviours of individuals about drug use, 62.0% of the individuals consulted a physician in case of an illness (Table 2). 44.1% of the participants in the study by Dağtekin et al., (2018), 54.4% in the study of Hatipoğlu and Özyurt (2016), and 48.4% of the participants in the study by Şendir et al., (2015) were determined to consult a physician in case of an illness (Şendir et al., 2015; Hatipoğlu & Özyurt, 2016; Dağtekin et al., 2018). In another study evaluating the knowledge and attitudes of individuals about rational drug use in Ankara, 40.0% of the participants applied to a family physician and 48.0% applied to a hospital when they got sick. In the same study, it was seen that other sources included self-medication with herbal medicine/nutrients, counselling with a pharmacist, and consulting with the family and friend (5.5%, 5.0%, 1.5%, respectively) (Barutçu et al., 2017). The difference in the results of the study may be caused by the fact that people have become more conscious and sensitive with the activities on this issue as well as by the ease of transportation facilities or the difference in study groups.

It was stated in all studies that a great majority of individuals took all of the medications prescribed by the physician (Yapıcı et al., 2011; Dağtekin et al., 2018). In parallel with the literature, it was determined in this study that 80.2% of the participants took all of the drugs prescribed by the doctor and a great majority of the individuals who did not take all the drugs did not use the drugs at home again (Table 3). Considering that the Social Security Institution paid most of the drugs, it can be thought that individuals who did not take the drugs again at home showed positive behaviours in terms of the country's economy. Because, it is stated that when individuals take the drugs in the house from the pharmacy again and again, the drugs in the house are wasted by being expired without even opening their box (Pınar, 2012). However, this situation shows that the drugs are in the house either because individuals did not fulfil their previous treatments or they take to the drugs without a prescription from a pharmacy and keep them as a spare at home. In other words, it is seen that there is actually irrational drug use.

According to the principles of rational drug use, an individual should use the drug appropriate to his/her clinical need at the right dose and for the

right time period (WHO, 2012). In other words, after taking the right medication prescribed by the physician, the correct use of these medications is of great importance. While 35.5% of the participants stated that they used the medication for the time period determined by the physician or pharmacists, 32.1% stated that they used the drugs until they were finished and 31.6% stated that they used them until the complaints disappeared (Table 3). This suggests that individuals may not have been informed by the physician about how long the drug treatment should continue, or that people may not have followed the information given. In a multicentre study conducted in 2015 to evaluate the health service received by the patients, who applied to primary health care centres and public hospitals, in terms of rational drug use, only 55.3% of the participants were informed about the duration of treatment and 26.3% stated that they were informed about when to discontinue the drugs (Akıcı et al., 2015).

According to the studies, it is also stated that the keeping medication at home as replacement is common (Hatipoğlu & Özyurt, 2016; Barutçu et al., 2017; Dağtekin et al., 2018). It is thought that individuals can obtain these medications from the excessive drugs due to early termination of previous treatments, by buying without prescription or having them prescribed by family physicians. About one-third of the individuals who participated in the study abandoned the past treatments themselves (Table 3). In the study conducted in 2011 by the Ministry of Health about the "Perspective of the Society on Rational Drug Use", it was stated that 70.3% of the patients who applied to family health centres and 70.8% of those who applied to state hospitals stopped the drugs recommended by the physician before the recommended time in their previous illnesses (Republic of Turkey Ministry of Health, 2011b). When results of the present study and previous studies were evaluated, it was observed that there was a decrease in the number of individuals who stopped taking the drugs recommended by the physician before the recommended period. This may be due to the awareness of individuals with the trainings or public spots and may also be due to the difference in the sample groups, especially due to the high educational level. However, the fact that one third of the individuals discontinued their drugs before the recommended period points out an important problem. In addition, 78.3% of the individuals stated that they applied to the physician in case of side effects (Table 3). In a study conducted to determine the rational drug use habits of medical students, 37.5% of the female students stated that they stopped using the drug and consulted the physician

when they saw a side effect; on the other hand, 50.0% of the male students said that they consulted a physician in such a case (Pınar, 2017). Pınar et al., (2013) determined that 40.6% of the participants consulted a physician, 17.6% stopped using the drug, and 8.7% of the participants stopped the drugs and consulted a physician in case of experiencing drug-related side effects (Pınar et al., 2013). When side effects were seen, the most accurate behaviour is to stop using the drug and seek medical advice. It is very important to be careful about side effects related to drugs and to read the prospectus. However, physicians should inform each patient about this issue by considering that some patients cannot read and understand this information. They should also say what to do if a side effect develops.

It was found that 71.1% of the participants stated that they did not recommend any drug that was good for their disease to other people, 62.3% stated that they did not use the products advertised in the media for treatment purposes, and 30.4% stated that they used these products in the consultation with a physician (Table 3). It was observed in similar studies pointing out different results that 42.1% of the participants recommended the drugs, which were good for their own disease, to the other people (Dağtekin et al., 2018) and 78.2% did not recommend them to others (Yılmaz et al., 2014). Drug treatments are individually arranged as specific to the individuals' clinical conditions. In addition, people can also use more than one drugs. Drug activities and interactions may vary depending on these factors and many other affecting factors. Therefore, people should not choose to treat themselves without the advice of a physician. However, when the non-prescription drug use characteristics of the individual who participated in the study were examined, it was determined that the participants used the drugs such as analgesic, antipyretic, vitamin drugs, skin creams and even antibiotics without medical advice and 71.6% of the individuals used non-prescription drugs within the last three months (Table 4). Other studies showed that individuals used non-prescription drugs (Dağtekin et al., 2018; Hatipoğlu & Özyurt, 2016; Yılmaz et al., 2014; İlhan et al., 2014). In accordance with the literature (İlhan et al., 2014; Hatipoğlu & Özyurt, 2016; Dağtekin et al., 2018), it was found in the present study that individuals using non-prescription drug were mostly using analgesics (Table 4). It is thought that analgesics and antipyretics are among the most frequently used drugs because they are the first choice of drugs in symptomatic treatment and they can be taken easily from the pharmacy without a prescription. Additionally, affordable prices of analgesics eases

accessing them. Pain may be a symptom of disease. It is very important to use analgesics with physician control, since uncontrollable use of analgesics will prevent the diagnosis of the disease. However, it should be noted that easily accessible analgesics can lead to serious side effects such as impaired liver function, renal toxicity, gastrointestinal bleeding, and changing the effectiveness of other drugs used (Ergün & Güneri, 2009).

Döşler and Ulusoy (2014) was stated that 43.0% of the participants used antibiotics without prescription, 83.0% could easily access antibiotics, 79.0% ended the treatment even if the antibiotic was not over when the disease symptoms disappeared (Döşler & Ulusoy, 2014). Demiroğlu et al., (2017) reported that 20.2% of the participants used antibiotics without any medical examination and 17.0% of the participants stopped using the drug when they believed that they recovered (Demiroğlu et al., 2017). Hatipoğlu and Özyurt (2016) found in their study that 29.6% of the participants used antibiotics without medical advice. The Ministry of Health stated in the letter dated 18.03.2013 that even simple infections and minor injuries may be fatal in the near future due to antibiotic resistance associated with irrational drug use. Therefore, in the related letter sent to the provincial governor's offices, they requested not to sell antibiotics especially over the counter within the scope of "Rational Drug Use 2014-2017 Action Plan" (Republic of Turkey Ministry of Health, 2014). However, 6.2% of the individuals using drug without physician's advice used antibiotics in the last three months in this study (Table 4). Since these individuals cannot take antibiotics without a prescription, it was thought that individuals used the drug remaining from their previous treatment or the medicine they took from others.

Keeping drugs at home as a spare without necessity can become a health threatening element since irrational use of these drugs can cause significant problems (Akıcı et al., 2017). İlhan et al., (2014) stated that 78.6% of the participants kept drugs at home, 40.8% of these people asked prescription from a physician and 15.1% of them stated that they took the drugs by directly consulting with the pharmacist. The participants in the study stated that there were currently averages of 1-5 boxes of drugs in their homes (45.8%), and normally they certainly had analgesics (33.2%), common cold medications (20.4%), and antipyretics (17.8%) at home. In addition, 24.8% of the individuals thought that analgesics should be absolutely found in every home, 42.4% stated that their family members kept their residual drugs after a treatment to be used when necessary, and 39.2% said that they paid attention on

the expiration date of the drugs they kept at home before reusing to make sure they were not expired (Table 5). Medications that are used continuously or prescribed for specific health problems can be kept at home. However, proper storage conditions must be met in order to maintain the effectiveness of these drugs and to prevent possible side effects (UCTEA Chamber of Chemical Engineers, 2016).

Knowing the behaviours and habits of the society in drug applications is of great importance in terms of preventing possible problems. Nurses who are able to reach and influence many individuals should act rationally both for themselves and their patients during drug use and drug administration. Nurses are not only responsible for the administration and monitoring of the treatment planned by the physician. Nurses also have many duties such as providing information to individuals about rational drug use, making trainings and observations, identifying problems and creating the appropriate environment (Kuş & Durna, 2016). For effective and safe use of drugs and raising awareness in individuals about rational drug use, nurses should follow the current condition, take necessary measures, and take appropriate interventions.

This study is a local study to evaluate the attitudes and behaviors of patients admitted to the emergency service of a university hospital on rational drug use. The study results can only be generalized to individuals participating in the research. The limitations of the study are that the research results could not be generalized to other hospitals or provinces and could not be reached to the entire population.

CONCLUSION AND RECOMMENDATIONS

As a result of this study, it was determined that 71.6% of the participants used unprescribed drugs within the last three months, 56.1% used analgesic without prescription, and 94.1% experienced no side effects related to the unprescribed drugs they used. It was determined that 7.5% of the patients tried to treat themselves with the drugs in the house, 6.9% tried herbalism methods, 2.7% tried to treat themselves by asking those who had problems before similar to their illness, and 62.3% did not use the products advertised in the media for treatment purposes. It was found that the participants mostly kept analgesics, colds medications and antipyretics at their homes.

However, according to the study results, there are still inappropriate behaviours and habits related to the drug use. To raise awareness on rational drug use, formal and non-formal education opportunities should be developed and used continuously. Along with the training, necessary arrangements should be

made to protect and support the gained attitudes and behaviours. Drug policies should be shaped in this direction. In order to increase the sensitivity of the society and gain positive attitude and behaviour on this issue, it is recommended to continue these studies by increasing their numbers and to maintain the follow-ups.

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