

Evaluation of the knowledge, attitudes and behaviors of elderly people living within the borders of Lapta Municipality in the northern part of Cyprus regarding drug use

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Received: 22/07/2024

Accepted: 22/08/2024

Published: 20/09/2024

Cite this article: Kargin, M., & Tek A. (2024). Evaluation of the knowledge, attitudes and behaviors of elderly people living within the borders of Lapta Municipality in the northern part of Cyprus regarding drug use. *J Nurs Care Res.* 1(3),63-70.

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ABSTRACT

Aims: Since problems with medication use lead to increased mortality and morbidity, elderly individuals should use their medications correctly. This study was conducted to determine the drug use behaviors of elderly patients and the factors affecting these behaviors.

Methods: The study was conducted with 250 elderly individuals who were registered at the Lapta Health Center and who used medication in the villages of Lapta Municipality. A questionnaire form created by the researcher and the elderly medication use behaviors scale were used to collect the data.

Results: It was determined that 49.2% of the elderly people who participated in our study were between 65-69 years of age, 50.04% were male, 38.0% used 2-3 medicines a day, 84.0% knew the name of the medicine they used, 90% knew the purpose of the medicine they used, 95.6% paid attention to the use of the medicine, but 65.2% forgot to take the medicine and 50.9% took the medicine when they thought of it. It was also concluded that 80.8% of the elderly paid attention to the expiration date of the medication, 90.4% did not recommend the medication to others, 92.8% did not use the medication recommended by others, 83.6% did not take medication without asking the doctor, 74.4% did not take medication without a prescription and if they had to use it, it was painkillers. The average score for behavior regarding drug use was found to be 39.61 ± 7.91 (min=19, max=76).

Conclusion: It was found that those who had university education or higher, who had education, who had social security, who went to check-ups at the time recommended by the doctor, who received education about the disease, who knew the name and purpose of the drug used and who paid attention to its use had positive behaviors towards drug use. It was determined that the participants showed positive behavior towards drug use according to the score they received from the scale. The importance of providing drug education to elderly individuals and preparing this education by paying attention to characteristics such as the educational status and social security status of the individual was determined.

Keywords: Elderly, drug use, knowledge, attitude and behavior, nursing

INTRODUCTION

Aging, which is a natural process, is universal and causes a decrease in functions in all living things. Although old age is accepted as 65 years of age or older, the structural and functional changes that occur over time from the molecular to the systems level of the organism and are irreversible are defined as aging. This is the period that occurs with age. With aging, emotional, physiological, biological and functional changes are experienced, and as a result of these changes, individuals realize that they are aging and that they can no longer use many of their functions as they used to, and they call it old age (Kuvvetlioğlu, 2011; Tereci et al., 2016). It is seen that the world population has been aging rapidly for the last 50 years due to the decrease in the birth rate and

the increase in life expectancy. According to the estimates made by the World Health Organization (WHO) as a result of the data collected, the elderly population, which was 600 million in the 2000s, will reach 1.2 billion in 2025. Health problems are also increasing in parallel with the increasing elderly population in the world. For these reasons, societies all over the world have to re-examine their increasing health expenditures (WHO, 2002).

While the increase in the elderly population has led to an increase in chronic diseases, it has also caused people to use more medications and multiple medications. When we look at the reasons for polypharmacy in the elderly population, we can count the following: going to more than one doctor and

getting different prescriptions, having many drugs written in prescriptions, doctors' willingness to prescribe too many drugs, and patients' willingness to use drugs according to the symptoms they carry. However, it should be kept in mind that polypharmacy has many side effects. For this reason, mortality and morbidity rates are high due to medications (Özdemir et al. 2005; Ünüvar, 2019).

As in every age group, correct drug use is extremely important in the elderly patient group. For this reason, nurses serving elderly patients aged 65 years and over should be trained on this issue and educate their patients correctly about the use, dosage, effect, time and side effects of medications. While trying to raise awareness on the harms that may be caused by polypharmacy and the picture that may arise if it is not prevented, it is known that serious behavioral problems arise in individuals regarding drug consumption. It is understood that individuals buy and use medicines without being prescribed by a doctor, that they buy and use medicines on the advice of a neighbor or close friend without consulting a doctor, and that medicines that do not work for these reasons are changed or added on, leading to polypharmacy (Öztürk & Uğraş, 2017; Lunghi et al, 2022).

While nurses aim to protect and improve the health of individuals in every period of their lives, they also have an important role in maintaining their health. They have an important role in guiding individuals, families and societies in protecting, maintaining and improving their health and changing harmful habits. For all these reasons, it is also among their duties to provide accurate information about the correct use of medication (Zeybek, 2018). Therefore, nurses have important duties in this regard.

In this study, it was aimed to evaluate the knowledge, attitudes and behaviors of elderly people aged 65 years and over living within the borders of Lapta Municipality in the Northern part of Cyprus regarding polypharmacy. There are no studies in the field where similar comparisons have been made, especially in the north of Cyprus. This makes the study original. It is thought that this study will shed light on all healthcare professionals working in all private and public hospitals in the TRNC, guide how to inform these patients and review and evaluate the service provided to them. In this context, this study was conducted to determine the knowledge, attitudes and behaviors of elderly individuals living within the borders of Lapta Municipality regarding drug use in order to contribute to the literature.

Questions of the Study

- What is the average score of the elderly on their behaviors related to medication use?
- Do the socio-demographic characteristics of the elderly affect the score they receive on the scale of behaviors related to medication use?

METHODS

Ethical Aspects of the Research

The study was conducted in accordance with ethical rules. Before the study, the elderly individuals participating in the study were informed and their written informed consent was obtained. The necessary ethics committee approval was

obtained from the Ministry of Health for the implementation of the research (2021/52-21) and approval was obtained from the Cyprus Science University Postgraduate Training and Research Institute Ethics Committee (Date: 17.06.2021, Decision No: 2021/35). All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki.

Type of Research

This study, which was carried out with the aim of evaluating the knowledge, attitudes and behaviors of the elderly living within the borders of Lapta Municipality in the Northern part of Cyprus, was based on quantitative data and was organized in accordance with the descriptive-cross-sectional research design.

Place and Time of the Study

The study was conducted at Lapta Health Center between June and September 2021. Lapta Health Center, which serves the people living in Lapta and Alsancak Municipality borders, provides vaccination, emergency, 112 speed, pediatric, gynecology and dental polyclinic services between 08.00-16.00. At the same time, Lapta Health Center is open 24 hours a day, every day of the week, and 2 nurses and a driver are on call for possible emergencies in the region.

Population and Sample of the Study

The study was planned to include individuals aged 65 years and over who came to Lapta Health Center between June and September 2021, and 250 elderly individuals (women, men) registered at Lapta Health Center and taking medication were included. Inclusion criteria were being registered at Lapta Health Center, being 65 years of age or older, and having regular medication use.

Data Collection Tools

The "socio-demographic questionnaire form" consisting of 33 questions and the Scale of Medication Use Behaviors of the Elderly, which was obtained by the researcher by reviewing the literature, were used to collect the data. Data were collected by interviewing each participant one-on-one and using the questionnaire method. It took an average of 20 minutes for each individual to complete the questionnaires.

Socio-Demographic Questionnaire Form

This questionnaire form was developed by the researcher after reviewing the relevant literature and receiving expert opinion. The questionnaire includes 33 questions, including 8 questions about socio-demographic characteristics, 3 questions about medication use characteristics, 3 questions about sources of support in medication use, 4 questions about health status characteristics, and 15 questions about the level of knowledge about medication use (Demirbağ & Temur, 2012; Bulakçı, 2013).

Medication Use Behaviors of the Elderly Scale

This scale was developed by Arpacı in 2008 to measure the medication use behaviors of the elderly. The scale, which consists of 17 questions in total, is a five-point Likert-type scale with positive (1, 3-6, 13, 16, 17) and negative (2, 7-12, 14, 15) statements. In negative statements, the answer "never" receives 1 point, while in positive statements, the answer

“always” receives 1 point. The scale is not evaluated on a total score; the scores obtained from each item are calculated separately. Each item constituting the scale is scored between 1-5; the scale score can vary between 17-85; a decrease in the score indicates positive behavior towards drug use (Arpacı et al. 2008). In the present study, the cronbach alpha's value of the scale was found to be 0.60.

Statistical Analysis

The data were transferred to the computer environment with the SPSS 26 package program and the data were evaluated using the same statistical program. Frequency, percentage and mean were used in the descriptive analysis of independent variables in the evaluation of the data. Since it was determined that the data obtained from the behaviors of the elderly regarding the use of medication scale used in the study did not show normal distribution (Kolmogorov-Smirnov $z=.097$ $p=0.000$) as a result of the normality test performed to determine the significant difference analysis with independent data, it was evaluated with nonparametric Mann-Whitney U and Kruskal-Wallis tests. The significance level was taken as $p<0.05$ in statistical analyses used to determine significant differences.

RESULTS

When we look at the findings obtained according to the socio-demographic characteristics of the participants in Table 1; it was determined that 49.2% of the participants were between the ages of 65-69, 49.6% were female. It was found that 65.6% of the elderly individuals who were mostly (40%) primary school graduates were retired, 84% were married and 58.4% lived with their spouses. It was determined that 79.2% of the elderly individuals participating in the study had health insurance and 51.6% had a moderate-income level (Table 1).

Looking at the data obtained regarding the health status of the participants, it was determined that all of the participants had a chronic disease. It was determined that 44.2% of the participants had circulatory system. It was stated that 53.2% of the elderly individuals went for follow-up visits as recommended by their doctor. While 57.6% stated that they did not receive education about the disease, 42.4% stated that they received education (Table 2).

When the situation regarding the participants' knowledge about the use of medication was analyzed, 38% of the participants stated that they took 2-3, 30.8% 4-5, 26.8% 6 or more, and 4.4% 1 medication per day. Among the questions aimed at determining the level of drug knowledge of the participants; 84% knew the name of the drug, 90% knew the purpose of the drug, 95.6% paid attention to the use of the drug, 95.2% did not overdose, 92.4% did not change the dose status of the drug, 55.6% had information about the interaction of the drug with food and beverages, 65.2% forgot to take the drug, 49.1% did not take the drug when they forgot to take the drug, 50.9% took the drug when they thought of it, 80, 8% pay attention to the expiry dates, 90.4% do not recommend the medication to others, 92.8% do not use the medication recommended by others, 83.6% do not take medication without asking the doctor, 42.8% develop complications when taking medication, 57.2% state that there are no complications, and 32.8% of the participants go to the doctor in case of complications (Table 3).

Table 1. Socio-demographic characteristics of the participants

		n	%
Age	Between 65-69	123	49.2
	Between 70-74	54	21.6
	Between 75-79	34	13.6
	80 and above	39	15.6
Gender	Female	124	49.6
	Male	126	50.4
Education status	Literate	39	15.6
	Primary school	100	40.0
	Middle school	41	16.4
	Graduated from high school or equivalent	42	16.8
	University and above	28	11.2
Profession	Retired	164	65.6
	Unemployed	10	4.0
	Housewife	68	27.2
	Officer	4	1.6
	Worker	4	1.6
Marital status	Married	210	84.0
	Single	40	16.0
Health assurance	Yes	198	79.2
	No	52	20.8
Income status	Income more than expenditure	23	9.2
	Good	44	17.6
	Middle	129	51.6
	Bad	25	10.0
	Income less than expenditure	29	11.6
Who she lives with	With my wife	146	58.4
	Alone	40	16.0
	My wife and children	47	18.8
	My children	17	6.8

Table 2. Characteristics of participants' health status

		n	%
Chronic disease status	Yes	250	100
	No	0	0
Chronic disease*	Circulatory system	186	44.2
	Gastrointestinal system	28	6.7
	Respiratory system	42	10.0
	Nervous system	20	4.8
	Musculoskeletal system	29	6.9
	Cancer	7	1.7
	Endocrine system	98	23.3
	Urinary system	11	2.6
Check-ups due to illness	I'm going in the time recommended by the doctor	133	53.2
	I'm not leaving	13	5.2
	I'm leaving as long as there are complaints	104	41.6
Receiving education about the disease	Yes	106	42.4
	No	144	57.6

	n	%
Number of medicines used	1	11 4.4
	2-3	95 38.0
	4-5	77 30.8
	6 and above	67 26.8
Knowing the name of the medicine used	Yes	210 84.0
	No	40 16
Knowing the purpose of the medicine used	Yes	225 90
	No	25 10
Paying attention to the use of medication	Yes	239 95.6
	No	11 4.4
Overdose	Yes	12 4.8
	No	238 95.2
Changing dose form	Yes	19 7.6
	No	231 92.4
Knowledge of interaction with food and beverage	Yes	139 55.6
	No	111 44.4
Forgetting to take the medicine	Yes	163 65.2
	No	87 34.8
Made when it comes to mind	I don't take the medicine	80 49.1
	I'll get it when I think of it	83 50.9
Attention to expiration dates	Yes	202 80.8
	No	48 19.2
Suggesting to another person	Yes	24 9.6
	No	226 90.4
Taking medicine prescribed by someone else	Yes	18 7.2
	No	232 92.8
Don't take medicine without asking a doctor	Yes	41 16.4
	No	209 83.6
Complication development status	Yes	107 42.8
	No	143 57.2
What to do in case of complications (n=107)	I quit the medicine	10 4.0
	I went to the doctor	82 32.8
	I did not do anything	6 2.4
	I consulted the nurse	9 3.6

Regarding the drug use characteristics of the participants, 74.4% stated that they did not take over-the-counter medication, and those who took over-the-counter medication stated that they mostly used painkillers (55.6%). 93.2% of the elderly individuals stated that they took their medication prescribed by the doctor on time (Table 4).

In the findings obtained regarding the sources of support in medication use, most of the participants (77.6%) stated that they had information about medication use, and 59.9% stated that they obtained the information mostly from their doctors. Regarding the use of medication, 68% stated that there was no one who helped them in this regard (Table 5).

In the results of Mann-Whitney U test and Kruskal-Wallis test performed to determine the relationship between the socio-demographic characteristics of the participants and the scores they received from the behaviors related to drug use scale; no difference was found between the variables of age, gender, occupation, marital status and who they lived with at home ($p > 0.05$).

	n	%
Taking medication without a prescription	Yes	186 74.4
	No	70 25.6
Which medicines to take*	Antibiotics	17 6.8
	Vitamin	90 36.0
	Painkillers	139 55.6
	Other	4 1.6
Taking prescribed medicines on time	Yes	233 93.2
	No	17 6.8

*Multiple options are checked

	n	%
Information on the use of medicines	Yes	194 77.6
	No	20 8.0
	Not enough	36 14.4
From whom*	Family	13 4.6
	Nurse	40 14.2
	Doctor	169 59.9
	Pharmacy	60 21.3
Someone helpful	Yes	80 32.0
	No	170 68.0

*Multiple options are checked

There was a correlation between educational status and the scores obtained from the behaviors related to drug use scale ($p < 0.05$). As a result of the post hoc test to determine the difference between the groups, it was determined that individuals with university and above, secondary school and primary school graduates had positive behaviors towards drug use compared to literate individuals.

There was a relationship between health insurance and the scores obtained from the behaviors related to drug use scale ($p < 0.05$). It was determined that those with health insurance had positive behaviors towards drug use compared to those without health insurance.

There was a relationship between their income status and the scores they received from the scale of behaviors related to drug use ($p < 0.05$). As a result of the post hoc test conducted to determine the difference between the groups, it was determined that those whose income was more than their expenses had positive behaviors towards drug use compared to those whose income was less than their expenses (Table 6).

According to the results of Mann-Whitney U and Kruskal-Wallis tests conducted to determine the relationship between the health status characteristics of the participants and the scores they received from the behaviors related to drug use scale, a relationship was found between the scores of those who went for control due to their illness and those who received education about the disease and the scores they received from the behaviors related to drug use scale ($p < 0.05$). It was determined that those who went to the doctor's recommended time had more positive behaviors towards drug use than those who did not go and those who went when there was a complaint. Those who received education

about the disease were also found to have positive behaviors towards drug use (Table 7).

Table 6. The relationship between the socio-demographic characteristics of the participants and their scores on the behaviors related to drug use scale

		X	SD	p	Difference
Age	Between 65-69	39.9431	7.88368	$\chi^2=,310$ $p=.958$	
	Between 70-74	39.8889	8.84386		
	Between 75-79	39.2647	7.23338		
	80 and above	38.5128	7.41574		
Gender	Woman	39.2742	7.43573	$U=7,954,5$ $p=.803$	
	Male	39.9524	8.38270		
Education status	Literate (a)	42.0256	7.24564	$\chi^2=10,552$ $p=.032$	e-a, c-a, b-a
	Primary school (b)	39.4500	9.02340		
	Middle school (c)	38.9756	7.63704		
	High school graduate (d)	39.5952	7.32873		
	University and above (e)	37.8214	5.04097		
Profession	Retired	39.2073	7.69469	$\chi^2=3,155$ $p=.532$	
	Unemployed	40.5000	11.04788		
	Housewife	40.3676	7.54866		
	Officer	35.7500	10.65755		
Marital status	Married	39.4333	7.65824	$U=4,455,5$ $p=.542$	
	Single	40.5750	9.21506		
Health assurance	Yes	39.1364	7.91751	$U=6,123$ $p=.035$	
	No	41.4423	7.72674		
Income status	Income more than expenditure (a)	36.1304	6.90391	$\chi^2=10,189$ $p=.037$	a-e
	Good (b)	39.4318	8.28391		
	Middle (c)	39.3256	7.75923		
	Bad (d)	42.4000	9.81495		
	Income less than expenditure (e)	41.5517	5.97965		
Who she lives with age	With my wife	39.5822	7.84660	$\chi^2=2,238$ $p=.497$	
	Alone	41.4750	9.29844		
	My wife and children	38.2979	6.68195		
	My children	39.1765	8.04857		

X: Mean, SD: Standard deviation

Table 7. The relationship between the health status characteristics of the participants and the scale of their behaviors regarding drug use

		X	SD	p	Difference
Going to check-ups due to illness	I go within the time recommended by the doctor (a)	38.1880	7.41635	$\chi^2=12,177$ $p=.002$	a-c, a-b
	Not going (b)	43.0000	6.74537		
	I go when there is a complaint (c)	41.0192	8.35032		
Receiving education about the disease	Yes	37.1509	5.64977	$U=9,893,5$ $p=.000$	
	No	41.4306	8.82753		

X: Mean, SD: Standard deviation

According to the results of Mann-Whitney U and Kruskal-Wallis tests conducted to determine the relationship between

the scores obtained from the scale of drug use characteristics and behaviors related to drug use; it was determined that there was a significant difference between the status of taking over-the-counter medication and taking prescribed medication on time and behaviors related to drug use ($p<0.05$) and that individuals who did not take over-the-counter medication and those who took prescribed medication on time had positive behaviors towards drug use (Table 8).

Table 8. The relationship between the characteristics of drug use and the scale scores on behaviors related to drug use

Buying medicine without a prescription	Yes	40.3278	8.41907	$u=5,099,5$ $p=.019$
	No	37.7857	6.13825	
Taking prescribed medications on time	Yes	39.0987	7.22744	$u=2,693,5$ $p=.013$
	No	46.7059	12.69234	

According to the results of Mann-Whitney U and Kruskal-Wallis tests conducted to determine the relationship between the scores obtained from the scale of behaviors related to drug use and the characteristics of support resources in drug use; it was determined that those who had information about drug use and those who did not have someone to help them in drug use had positive behaviors towards drug use (Table 9).

Table 9. The relationship between the characteristics of support sources in medication use and the scale scores on behaviors related to medication use

Information about drug use	Yes (a)	38.2487	6.92070	$\chi^2=21,501$ $p=.000$	a-b a-c
	No (b)	44.9500	7.56359		
	Not enough (c)	43.8889	10.32550		
Someone helpful	Yes	41.0390	8.81154	$u=6,606,0$ $p=.037$	
	No	38.9412	7.46012		

The mean score of the participants' behavioral scale for medication use and the cronbach's alpha value to determine the reliability level of the scale are shown in Table 6. In this context, the mean score of the participants was 39.61+7.91 (min=19, max=76). The cronbach's alpha value of .604, which is the reliability level, shows that the scale is reliable (Table 10).

Table 10. Mean scores and cronbach's alpha value of the behavior scale for medication use

	X	SD	Min	Max	Cronbach's alpha
Behavior scale for medication use	39.61	7.91	19	76	.604

X: Mean, SD: Standard deviation, Min: Minimum, Max: Maximum

DISCUSSION

In this section, the findings obtained from the study are discussed using the data obtained from similar studies.

In Kuvvetlioglu's (2011) study, it was determined that the drugs used by the elderly differed according to age but not according to gender, education and marital status, the drug use of participants aged 70 years and over differed significantly ($p<0.05$), they had a high level of education and were married and statistically drug use had a significant effect on behaviour. In their study, Camargo et al. (2006) found that age and gender had no effect on drug use and behaviour, Erturk (2005) found that women used more drugs than men and those with higher education level used

drugs more consciously, but those with primary school level education used wrong drugs, Topbaş et al. (2003) found that there was a positive relationship between education and drug use. In line with the results we have obtained, we can say that there is a relationship between the use of medication in the elderly and their level of education and that the elderly tend to use more medication because their level of education is low, and they are not sufficiently conscious about this issue. In addition, we can argue that the fact that the elderly who live with someone use a lot of medication is that the family friends or spouses of the people they live with do not have education about the correct and regular use of medication and that the participants have low education levels.

In Table 2, when the relationship between the health status characteristics of the participants and the scores they received from the behaviours related to drug use scale was examined, a relationship was found between the scores they received from the behaviours related to drug use scale with those who went to the control due to their illness and those who received education about the disease ($p \leq 0.05$). It was found that those who went to the doctor's recommended time (53.2%) had more positive behaviours towards drug use than those who did not go (5.2%) or those who went when there was a complaint (41.6%). In addition, it was determined that those who received education about the disease (42.4%) had positive behaviour towards drug use. Oral (2021) suggested in his study that one of the most important problems encountered in irrational drug use is the self-treatment approach of patients. It was determined that 60% of the patients tried to self-medicate, but 91.6% of them received help from a physician according to their disease status. In parallel with our study, as a result of the research conducted by Oral (2021), it was found that those who had education about the disease had more positive behaviour towards drug use. Similarly, Deniz (2019) found in his study that the participants preferred to use painkillers the most and antibiotics the least without consulting a doctor. Similar findings were found in the study of Baybek et al. (2005). According to the findings of Ekenler and Koçoğlu (2016), the finding that a high rate of 77.3% of the participants in the study stopped taking medication before the time recommended by the doctor supports our study. In addition, contrary to our findings, Ekenler and Koçoğlu (2016) found that those who were more educated about the disease had more negative characteristics in terms of rational drug use. In our study, we can say that the reason why those who go to the control within the period recommended by the doctor are more positive towards drug use is due to the awareness raised by the doctor. When our study results and research findings are examined, we see that the health status characteristics of the participants and their behaviours regarding drug use are an important problem in terms of rational drug use and that some of the participants go to the doctor depending on their complaints, while others prefer not to go to the doctor. In line with the findings we have obtained, we can suggest that insufficient studies have not been carried out on this subject and that the lack of adequate education of the participants about their diseases is a factor in their misbehaviour and in this context, individual or social studies should be carried out to enlighten the patients.

According to the findings of the study, 84% of those who knew the name of the drug used, 95.6% of those who paid attention to the use of the drug, 55.6% of those who knew the interaction with food and drink, 65.2% of those who

forgot to take their medication, 50.9% of those who took it when they remembered, 80.8% of those who paid attention to the dates of use, 90.4% of those who did not recommend the drug to others, 92.8% of those who did not use the drug recommended by others, 57.2% of those who had positive behaviour towards the use of drugs without asking the doctor.

Our study findings overlap with some studies in the literature. Emik (2018) found that 31.5% of the participants did not know the names of the drugs they used. Similarly, in Güneş and Kıyak's (2017) study, 79.8% of the elderly stated that they did not know the name of the medication they used.

According to our findings, it was revealed that a high proportion (90.0%) of the participants did not know the purpose of the medication they used. At this point, our study findings show parallels with the results of Emik (2018) and Haney and Kudubeş (2017). In the study conducted by Şantaş and Demirgil (2017), which parallels the results of our study in the literature, it was determined that 24, 3% of the participants did not use the medication on time and the reason for not using the medication on time (32, 2%) was forgetting. Similarly, in the study conducted by Yılmaz et al. (2011), it was determined that 12, 5% of the participants did not use the medication on time and the reason for not using the medication on time (69%) was forgetfulness.

As a result of our findings, it was concluded that the participants paid attention to the dates of use of the drugs at a high rate (80.8%). Similarly, in the research conducted by Macit et al. (2019), it was determined that 64.2% of the participants paid attention to the expiration dates of the drugs they took. These results coincide with the work of Constructive et al. (2011). In the study conducted by Solmaz and Akın (2009), it was found that 35% of the elderly did not know the purpose of their medication, 64.4% were not aware of the side effects and 63.2% did not control the expiration date. Another study that is similar to these results is seen in the study of Eski and Pınar (2005).

The findings of our study overlap with the findings of Ekenler and Koçoğlu (2016). In their study, Ekenler and Koçoğlu (2016) found that 77.3% of the participants used medication without a physician's recommendation. In contrast to our findings, Yapıcı et al. (2011) found that 84.4% of the participants took medication at the recommended times. Similar results were found in the study of Yılmaz et al. (2011). As a result of our study, we can say that the high rate of participants who do not use the medication recommended by someone else and those who do not recommend the medication they use to others is due to the awareness of the participants on this issue. Our study results do not coincide with the study of Yousef et al. (2008). In the study of Yousef et al. (2008), it was determined that the rate of drug use according to the recommendation of friends/neighbours was high. Although this situation shows that people influence each other by consulting each other about drug use, we can think that it is contrary to the issue of rational drug use.

According to the results of our study, when the drug use characteristics of the participants were analysed, it was found that 74.4% of them did not take over-the-counter medication and those who took over-the-counter medication mostly used painkillers. According to the results we obtained, it was revealed that those who did not take over-the-counter medication and those who took the prescribed medication on time had positive behaviours towards drug use. In contrast

to the results obtained from our study, Emik (2018) found that 37.2% of the participants in his study stated that 37.2% of the participants took over-the-counter medication and when questioned about the reason, they stated that they knew the drug because they had used it before, they did not want to pay for the examination and they chose to use over-the-counter medication because they did not have time. Again, findings similar to our findings in Emik's (2018) study showed that those who used over-the-counter medication preferred painkillers, and our results overlap in this direction. Dağtekin et al. (2018) supported Emik's (2018) study and found that the majority of the participants chose to use over-the-counter medication without going to the doctor and that these medications were painkillers. Similar results were found in the studies of Mete and Üna (2017) and Güngör (2018). In addition, in Güngör's (2018) study, it was determined that the intake of over-the-counter medication decreased with increasing age. In a pilot study on rational drug use in Ankara, it was reported that 75.5% of the participants used medication without consulting a doctor (Özçelikay, 2001). According to the findings of our study, it was determined that the medicines prescribed by the doctor were also taken on time. Our study results are similar to the results of Özyurt et al. (2018).

CONCLUSION

According to our study results, we can say that income level is effective on the use of prescription or over-the-counter medication, and that the participants in our study did not prefer to use over-the-counter medication because they were mostly middle-income.

In the light of the findings we obtained, it was determined that the participants had information about the use of medication and obtained this information mostly from their doctors. It was determined that 68% of the participants did not have anyone to help them with medication use. According to the results of our study, it was determined that those who have information about drug use and those who do not have an assistant in drug use have positive behaviours towards drug use. In the study of Macit et al. (2019), it was found that the participants received information about drug use from their doctors, and our findings coincide at this point. Bilgili and Karatay (2005) reached the same results in their study. However, in the study conducted by Neslihan (2010) in Adana, it was determined that more than half of the participants (51, 9%) acted without consulting a doctor about drug use. In Ercan and Biçer's (2019) study, it was determined that individuals received information about medicines mostly from the physician and that this information was related to the method of use, duration and dose of treatment, side effects, dose and cost of the drug. Barutçu et al. (2017) found that the majority of the participants did not receive support in using medication, but read the package insert before using the medication. In line with the findings obtained, we can say that individuals do not need support because they prefer to get information from the doctor and have health awareness.

ETHICAL DECLARATIONS

Ethics Committee Approval

The study was carried out with the permission of the Cyprus Science University Postgraduate Training and Research Institute Ethics Committee (Date: 17.06.2021, Decision No: 2021/35).

Informed Consent

All patients signed and free and informed consent form.

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

The authors declared that this study has received no financial support.

Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

Acknowledgments

The authors would like to thank the participants in this study.

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