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RESEARCH

## INFORMATION AND OBSERVATIONS OF COMMUNITY PHARMACISTS ON GERIATRIC PATIENTS: A QUALITATIVE STUDY IN ANKARA CITY

### ABSTRACT

**Introduction:** As community pharmacists are the most easily accessible health professionals in our country, it is important to have their opinions on geriatric patients. In this study we aimed to learn what experiences community pharmacists have with geriatric patients as well as their information and observations on this target group.

**Materials and Method:** In this research in-depth interview was used as a qualitative research technique. A total of 25 community pharmacists were interviewed. The interviews went on until no new data was obtained.

**Results:** According to the in-depth interviews with the community pharmacists the following were stated: Elderly patients visit community pharmacists not only to get their medicines but also to consult them on various health issues and to chat. They mostly have diabetes, hypertension, asthma, and cardiovascular diseases as chronic diseases. They consume the drugs against these diseases as well as other medicines. In the communication process with their geriatric patients pharmacists encounter many problems. Nevertheless they have suggestions to improve their services which they provide for their elderly patients.

**Conclusion:** There are some responsibilities that the pharmacists should take within the context of geriatric discipline.

**Key Words:** Pharmacy; Geriatrics; Patients; Qualitative Research.



ARAŞTIRMA

## SERBEST ECZACILARIN GERİATRİK HASTALARA İLİŞKİN BİLGİ VE GÖZLEMLERİ: ANKARA ŞEHRİNDE KALİTATİF BİR ARAŞTIRMA

### Öz

**Giriş:** Serbest eczacılar ülkemizde en kolay ulaşılabilen sağlık çalışanları olduğu için, geriatrik hastalar konusunda onların düşüncelerini almak önemlidir. Bu çalışmada, serbest eczacıların geriatrik hastalar ile ne gibi tecrübeler yaşadıklarının yanı sıra bu hedef grup hakkında bilgileri ve gözlemlerini öğrenmeyi amaçladık.

**Gereç ve Yöntem:** Bu araştırmada kalitatif araştırma tekniği olarak derinlemesine görüşme kullanılmıştır. Toplam 25 serbest eczacıyla görüşme yapılmıştır. Görüşmeler yeni bir bulgu elde edilmeyinceye kadar sürdürülmüştür.

**Bulgular:** Serbest eczacılarla gerçekleştirilen derinlemesine görüşmelere göre şunlar ifade edilmiştir: Yaşlı hastalar sadece ilaçlarını almak için değil, ama sağlıkla ilgili çeşitli konularda fikir almak ve sohbet etmek için de serbest eczacıları ziyaret etmektedir. Bu grupta en çok kronik hastalık olarak diyabet, hipertansiyon, astım ve kardiyovasküler hastalıklar vardır. Diğer ilaçların yanı sıra bu hastalıkları tedavi eden ilaçları kullanmaktadırlar. Geriatrik hastalarla olan iletişim sürecinde eczacılar birçok problemle karşılaşmaktadır. Bununla beraber yaşlı hastalara sundukları hizmetlerin iyileştirilmesi için bazı önerileri bulunmaktadır.

**Sonuç:** Geriatrik disiplin bağlamında eczacıların alması gereken bazı sorumluluklar bulunmaktadır.

**Anahtar Sözcükler:** Eczacılık; Geriatri; Hastalar; Kalitatif Araştırma.



## INTRODUCTION

The dramatic increase in the number (absolute weight) and proportion (relative weight) of persons aged 65 and above is one of the most significant phenomena of the twentieth century. It has become a major concern facing the whole world. In fact, the first quarter of twenty-first century has often been called “*The Age of Aging*” (1). The older population in the world is increasing by one million persons every month. By 2025, the number of the elderly people is projected to rise to 1,171 million (14.28 % of the world’s population). The increase in the numbers and proportions of older people is accompanied by a change in the population’s age structure. A declining proportion of children in a population results in an increase in the proportion of older people (1).

There is a strong evidence showing the number of elderly people will increase in various countries of the world: In USA the growth of the population 65 years and older has been greater than that of the total population, and this trend is expected to continue at least until the end of the century, by 2030, 20 % of Americans will be aged 65 years and older; the proportion of elderly people aged at least 65 years was 19.9 % in 2005 and is expected to rise to 26.0 % by 2015 in Japan; in the year 2000, 7.2 % of Singaporeans were in the geriatric age group and is projected to increase to 18.4 % in the year 2030; between the years 1996 and 2016 the number of people in Australia over the age of 65 years will increase by 59 % which is equivalent to 1.3 million individuals (2-6).

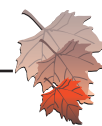
Likewise it is evident that Turkey has not only an aging population but also the rate of aging in this country will be very rapid during 2000-2025. Within a period of 10 years, by 2015, the older population, in the country, will cross the 10 percent benchmark designated by demographers as an aged population (1). These demographic trends are having significant social, economic and political effects on society and its institutions. The demographic transition of this century has extended to the developing world and health services must respond to the needs of the increasing number of persons aged 65 and over (1). The growing number of elderly population places increasing demands on the public health system and on medical services. Medication-related problems are prevalent in older adults, contributing to increased harm and health care costs and negatively impacting quality of care (7). Because the elderly have more chronic illnesses than the younger population, the aging of the population means an increased use of prescription drugs. Also the need for prescription drugs imposes a financial burden on the elderly, many of whom have a moderate or less income when compared to the active young workers. Additionally, the drug consumption

among older people is quite common as is the case in the world. As it is known that the safe use of drugs which is defined by the maximum efficacy, safety and its convenience for the patient and cost-benefit relation is not only significant for all age groups but also it is more so for older people. The profile of drug use reported that the consumption of drugs among older people in Turkey is as common as in the rest of the world (8). In fact it is common for the adults over the age of 65 that many physiological changes, mental changes (motor retardation, dementia, etc), nutrition disorders and many systematic diseases become more prevalent. This fact results in the need for polypharmacy in the geriatric group. Elderly patients often are faced with polypharmacy when they have multiple disease processes. Declining organ function, as part of the normal aging process, adds to the problem of adverse drug reactions (ADRs) in this population (9). Besides polypharmacy, due to many factors such as being under the follow-up of more than one physician because of chronic diseases, frequently switching physician or clinic, inappropriate prescriptions, noncompliance, pharmaco-kinetic/-dynamic changes and possible interactions, drugs may show different effects on the elderly group. Therefore, the physicians and other related healthcare personnel working in the healthcare provider chain should pay great attention for the safe use of drugs in this sensitive group (8).

As community pharmacists are the most easily accessible health professionals in our country as elsewhere in the world, it is significant to have their opinions on geriatric patients and to learn what problems they confront with when serving to these patients. Thus by taking necessary actions elderly people can be served with better care and quality by the community pharmacists. In the light of these, with this study we tried to have the sincere opinions and observations of community pharmacists on their geriatric patients. The aim of the present study is to understand what community pharmacists know about geriatric patients, besides their observations -in other words their experiences- when providing services to this target group and what problems they come across during their communication process with a geriatric patient. In the end, we bring some suggestions in the light of the obtained findings.

## MATERIALS AND METHOD

One of the research options (either quantitative –self administered questionnaire, face to face interview- or qualitative –focus group interviews, in-depth interviews-) would be convenient for the study. In order to get detailed



and real information qualitative research was preferred for this research.

The advantages of qualitative research techniques are as follows:

- The primary reason for using qualitative research is it provides greater depth of response and, therefore, greater consequent understanding than can be acquired through quantitative techniques.
- In general, qualitative research is more economical than quantitative research.
- The study design can be modified while it is in progress.
- Qualitative techniques provide the opportunity to view and experience the target groups directly.
- One of the strengths of qualitative research method is that it is exploratory and flexible.
- Qualitative research can be conducted in areas where no technical facilities are available (10).

Focus group interview technique is used beforehand so as to pilot test the interview guideline/manual. For this purpose a focus group was conducted by 6 community pharmacists on the 17<sup>th</sup> of February 2006 at Ankara Chamber of Pharmacists. Those pharmacists were working in one of the groups of the chamber and had their routine meeting on the same day. Necessary changes were made in the interview manual thereafter by excluding some questions and refining others. Then by considering the difficulty of gathering these target professionals at the same time in the same place, the researchers decided that the in-depth interview technique in their pharmacy would best fit for the community pharmacists (11). In-depth interview is one of the qualitative techniques widely used by social scientists. However the health professionals such as physicians, nurses and pharmacists conducting researches began using qualitative techniques very frequently in the last decades.

### Information on In-Depth Interview

The in-depth interview is an analysis, which proceeds as a confidential and secure conversation between an interviewer and a respondent. By means of a thorough composed interview guide, which is approved by the interviewee, the interviewer ensures that the conversation encompasses the topics that are crucial to ask for the sake of the purpose and the issue of the survey (12).

Some characteristics of in-depth interviews are given below (13):

- interview is conducted one-on-one, and lasts between 30 and 60 minutes,
- best method for in-depth probing of personal opinions, beliefs, and values,

- probing is very useful at uncovering hidden issues,
- they are unstructured,
- can be time consuming and responses can be difficult to interpret,
- requires skilled interviewers,
- there is no social pressure on respondents to conform and no group dynamics,
- start with general questions and rapport establishing questions, then proceed to more purposive questions,
- laddering is a technique used by depth interviewers in which you start with questions about external objects and external social phenomena, then proceed to internal attitudes and feelings.

The steps of conducting in-depth interview are as follows (14):

- Planning:* Stakeholders are identified; stakeholders to be interviewed are listed. If necessary, sample is determined. Ethical research standards are ensured.
- Developing instruments:* An interview protocol is developed; an interview guide that lists the questions or issues to be explored during the interview is developed. There should be no more than 15 main questions to guide the interview.
- Training data collectors:* Interviewers are identified and trained.
- Data collection:* Interviews with stakeholders are set up. Informed consent of the interviewee (written or oral) is sought. The purpose of the interview is re-explained. If interviewee agrees the interview is conducted. Key data is summarized immediately following the interview. Interviews continue until no new data obtained.
- Data analyzing:* Data are transcribed and/or reviewed. All interview data are analyzed.
- Disseminating findings:* Report is written. Feedback from interviewees is solicited. Report is revised.

In our research we followed each step outlined above.

The authors (and the researchers at the same time) of this article, developed a semi-structured interview guide composed of seven questions (all open-ended questions) (Table 1).

Before the interview, each interviewee was informed about the aim of the study; after getting informed consent orally the in-depth interview was conducted. Each in-depth interview period was different depending on the willingness and convenience of the interviewee. As a result we had an in-depth interview with 25 community pharmacists in their settings at various regions of Ankara City. The longest interview was one hour, while the shortest was 30 minutes.. The mean of all 25



interviews was  $50 \pm 9.76$  minutes. The interviews took place from September 2008 till January 2009. In the same day just after finalizing the interview, all data was transcribed and loaded in a notebook. When accepted by the interviewee (pharmacist), voice tape recorder was used while collecting the data. The day after the interview the authors came together and decided which phrases are worth to report and should be included as findings. In the findings part of this article and at the end of the each phrase, the pharmacist's gender and his/her age is given for the information of the reader.

Due to the nature of qualitative research no statistical test is available in this article. Instead the given answers by the pharmacist (when possible providing nonverbal communication in parantheses) is written objectively. The results follow the same order with the interview guide (Appendix).

Before conducting all the interviews written permission was taken from the managerial board of the Ankara Chamber of Pharmacists.

### Inclusion Criteria

We took into account that experienced community pharmacists can have more information and observation on the topic. For this reason we included in our study those pharmacists who have an experience of 5 or more years practice in the community setting.

## FINDINGS

### Demographical Characteristics of the Interviewed Pharmacists

Fourteen female and 11 male pharmacists were interviewed by two researchers. The age range of the pharmacists was 28–60. The mean age was found as  $45 \pm 4.02$ . Pharmacists' working years as a retail pharmacist was at least 5 years. However the longest was 35 years.

**Table 1—** Interview Guideline/Manual Used in In-depth Interview(s)

- 1.- Which age group do you consider as geriatric?
2. Why do the geriatric people visit you?
3. Which chronic diseases do the geriatric patients mostly have?
4. Which drug classes do the geriatric patients mostly consume?
5. When providing drugs to the geriatric patients which problems do you confront with?
6. Do you consume more time when providing geriatric patient's prescriptions and if yes, how?
7. How do you think the services provided by community pharmacists to the geriatric patients can be improved?

### Pharmacists' Perception of Geriatric Age Group

The following answers were given by the pharmacists when they were asked:

*"Which age group do you consider as geriatric?"*

*"Geriatric patients are older than 50" (F, 50).*

*"People who are older than 65 are considered as geriatric" (F, 54).*

*"After 65 years old people become geriatric" (M, 55).*

*"Above the age of 65" (M, 40).*

*(Thinking for a while)"Above 60, we are geriatric" (M, 36).*

*"60-65 years old and older people are geriatric" (F, 32).*

*"Well, I guess 60 and older than 60" (F, 28).*

*"As far as I know people are considered as geriatric after the age of 65" (M, 57).*

*"Hmmm, I think after 55 people are considered as old. Am I wrong?" (F, 33).*

*(Without any hesitation)"65 and older age groups are geriatrics" (F, 46).*

### Geriatric Patients' Reason of Visiting the Pharmacist

Pharmacists stated wide range of topics when they were asked:

*"Why do the geriatric people visit you?"*

Pharmacists' answers to the above question are given below:

*"For insulin pen usage" (F, 50).*

*"For blood pressure measurement, OTC medicines, and sometimes they drop in just for chatting" (F, 54).*

*"For purchasing their medicines, for blood pressure measurement" (M, 31).*

*"For consulting on medicines, to buy medicines and to talk to us" (M, 29).*

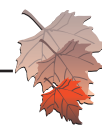
*"To buy medicines, to ask questions about their diseases and to chat" (F, 45).*

*(Attentively)"Mainly to buy their medicines. But some of them among this group are very lonely and need affection, interest, etc. So those just come to us for talking and having a cup of tea or coffee" (F, 32).*

*"Recent years in my district they come not only for their regular medicines but also have their flu vaccine and pneumonia vaccine" (F, 35).*

*"Besides getting their medicines, sometimes they are confused about when/how to take their medicines, or how to store them. So they or sometimes their relatives just drop in to have information about these issues" (M, 57).*





## Geriatric Patients' Most Observed Chronic Diseases and Consumed Drug Classes

Pharmacists told the following when they were asked:

*"Which chronic diseases do the geriatric patients mostly have? And which drug classes do the geriatric patients mostly consume?"*

*"They have cardiovascular diseases, also hypertension, as a result they consume the related drugs besides cholesterol lowering agents" (F, 50).*

*"Diabetes, heart diseases, hypertension. They get antidiabetics, antihypertensives" (F, 33).*

*"Hypertension, diabetes and asthma. Naturally they buy antidiabetics, inhalers for managing asthma, antihypertensive drugs" (M, 57).*

*"Alzheimer, diabetes, hypertension, chronic renal failure. So they get medicines against them" (F, 45).*

*"Diabetes, hypertension, cardiovascular diseases. They consume drugs to overcome these diseases" (M, 31).*

*"Hypertension, hypercholesterolemia, diabetes, vertigo. The medicines which balance these diseases are bought by elderly people" (F, 28).*

*"Coronary artery disease, hypertension, diabetes, heart failure. Geriatric patients get medicines in order to manage these illnesses" (F, 46).*

*"Asthma, diabetes, hypertension, heart failure, cerebrovascular diseases. Antasthmatics, antihypertensives, antidiabetics, etc." (M, 55).*

## Problems That Pharmacists Confront with Geriatric Patients

The answers written below were given when the pharmacists were asked:

*"When providing drugs to the geriatric patients which problems do you confront with?"*

*"They cannot follow up with their drug therapy. As they do not know the new procedure on obtaining drugs, it is very hard to explain them why it is impossible to supply the drugs they use before they are finished" (M, 31).*

*"Some patients are addicted to the shape and/or box of the drug. Also some are inclined to self medication even if their disease needs to be treated by a doctor" (M, 34).*

*"One patient may say that his friend had used a drug to lower his cholesterol and benefitted from it. So he insists on having the same drug in order to lower his" (F, 28)".*

*"Some patients use their drugs wrongly. For instance I know a patient of mine who had used an antibiotic as an analgesic for two years" (M, 57).*

*"Sometimes they bring their drugs which they constantly use in a pochette. And when you empty it you come across a variety of beta blockers. This scene is the same with cholesterol drugs also. Here the problem is the follow up of the patient is made*

*by not only one physician but various. One day the patient goes to State Hospital and gets a prescription from a doctor, the other day he goes to another State Hospital and there, another doctor prescribes similar drugs but under different trade names. The patient is totally unaware of this" (M, 55).*

*"Some patients overuse their drugs. Let's say that his doctor had prescribed only one tablet per day. But the patient consumed two tablets per day. Then he came to my pharmacy saying that his drug is finished. When we enter the provision system by computer, there comes the warning that the patient's drug has not finished yet and cannot be reimbursed. Geriatric patients are not convinced in such situations and sometimes they quarrel with the pharmacy staff on why he cannot get the drug" (F, 45).*

*"In some situations patients use the drug at high doses. In this way he believes his blood pressure will decrease rapidly" (M, 34).*

*"Patients do not understand the bioequivalence. They want to buy the same one doctor prescribes but on the other hand they do not wish to pay the price difference from out of their pocket" (F, 55).*

*"Some patients take suppositories orally" (M, 28).*

*"When drug forms are different then problems arise. Especially in suspension forms patients use the drug wrongly. They don't shake well before taking the drug" (M, 31).*

*"Some chronic patients such as diabetes and hypertension patients stop using their drugs when their symptoms improve" (M, 40).*

*"Some elderly patients feel like injecting a drug such as insulin is the end of world for them. You try to convince them to use their drug regularly by making long conversations and giving examples. When they use inhalers, aerosols, turbolers they use them wrongly. Sometimes they do not feel the drug is taken by their body and comes to the pharmacy with a complaint that the drug does not work. We tell them how these drugs work in the body. But you have to be very patient as it is very hard to convince them" (M, 31).*

*"For geriatric patients it is again very hard to change their accustomed behaviour to a new one when the doctor prescribed the old drug let's say that not one tablet a day but instead two" (M, 40).*

*"Sometimes both our colleagues and the doctors do not effectively communicate with elderly patients. As a result they can never serve these patients as the way it should be" (F, 55)".*

*"When they forget their drugs somewhere or their drug finishes they try to get them without a prescription" (F, 29).*

*"They do not understand the instructions and/or package inserts sometimes, most of them have their medicines not on time. Especially asthma patients have difficulty when using inhalers" (F, 45).*



*"Some of us and also some doctors do not give so much importance to continuing education on geriatrics. Consequently we cannot bring practical solutions to these patients" (M, 34).*

*"Some geriatric patients quit using drugs when they observe ADRs. So the pharmacist should make aware of these ADRs when providing drugs to the patients" (F, 55).*

*"We do not know in details the ADRs. If the drug representative warns us then we know. Otherwise I do not know from where to get information related to ADRs" (M, 34).*

*"Some geriatric patients resist to take their drugs when the producing firm changes the appearance of the drug box. Their perception may be low" (F, 28).*

*"As they use multiple drugs they mix their medicine box and use their medicines wrongly. Sometimes they can use their drugs too much or contrary sometimes less than the prescribed dose" (F, 33).*

### The Time Spent By the Pharmacist for Geriatric Patients

The following replies were given below when the pharmacists were asked:

*"Do you consume more time when providing geriatric patient's prescriptions and if yes, how?"*

*"Yes, sure. As those group of patients have more diseases and consume drugs more than the young patients, they need special attention of the pharmacist. I try to explain them how to use their drugs correctly one by one. Sometimes my explanations for once is not enough. Then I repeat what I said before several times" (F, 54).*

*"Generally, yes. They may have hearing impairment or low perception. So I try to write the usage instruction of medicines on a paper and I emphasize most important things before they leave my pharmacy" (F, 45).*

*"Yes, as they do not understand the package inserts I have to explain medicine use in detail using simple words" (F, 28).*

(trying to keep the interview as short as possible, he seems in a hurry) "Yes" (M, 31).

*"Generally, yes. Because I pay more attention to the elderly patients' prescriptions; whether an incompatibility exists or not. Their prescription contain more medicines" (M, 55).*

*"I do not spend more time than my other patients. If something unexpected happens I redirect those patients to their doctors" (M, 40).*

*"Some of my elderly patients are illiterate. I explain them in detail how to use and store their medicines. I also tell these to their relatives. Some of them understand what I say hardly. So I make more repetitions for those. In short I consume more time when I confront with this kind of patients" (F, 46).*

*"Yes, I do follow up of my elderly patients because they may forget. Especially when their drug is changed by the doctor to another one they need more interest and information for adapting to the new drug" (F, 32).*

### Opinions on How to Improve the Services Pharmacists Provide for Geriatric Patients

Pharmacists stated the following when they were asked lastly:

*"How do you think the services provided by community pharmacists to the geriatric patients can be improved?"*

*"We have to leave the bureaucratic procedures aside and allocate more of our time to the patients. Ten years ago we were better consultants to the patients but now we deal a lot for receiving provision on the computer, etc." (F, 55).*

*"All the procedures should be eliminated and continuous education should be mandatory for community pharmacists" (M, 34).*

*"I even take my workload to my home. I do my prescription controls at home. I try to read professional journals so as to improve myself. But most of the time it is impossible. Though I try to communicate with my patients as much as I can" (F, 32).*

*"I think I spend enough time for my geriatric patients. My workers in my pharmacy is few, procedures are time consuming, bureaucratic load is too much" (M, 55).*

*"If I can increase the number of my co-workers I will have more time to deal with elderly patients" (M, 35).*

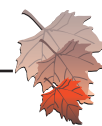
*"The system does not trust neither the doctor nor the pharmacist. There is too much bureaucracy. First the system should be reformed. Then the pharmacist can provide more professional services both to the young patients and to the old ones" (F, 35).*

*"There can be homecare for the patients. Like doctors do, pharmacists can visit their old patients and explain about medicines in the patient's house" (M, 40).*

*"There should be a healthy communication between the pharmacist and the doctor. For instance the duration of reports sometimes change. The doctor may not know this and the pharmacist informs the patient about the new procedure. But the patient believes his doctor not the pharmacist. Then the problem of mistrust arises" (M, 55).*

### DISCUSSION

The pharmacists' thoughts on which age group should be considered as geriatric were variable. Some of the pharmacists' knowledge about the geriatric age group was true whereas some answered this question wrongly. So in order to correct this misinformation a short lecture emphasizing the



main topics related to geriatrics can be given to the pharmacists before their graduation from pharmacy school like one faculty planned in USA (3). Pharmacists' information level is so important in order to provide services for elderly people. Because a pharmacist-conducted hypertension monitoring program for elderly people demonstrated that among 65 elderly patients who received hypertension medication-related advice, 80 % reported changes in medication therapy and showed significant improvement in blood pressure at six months after the advice (15).

Pharmacists stated that elderly people visit their pharmacy for purchasing medicines, getting flu vaccine injection, insulin pen usage, having their blood pressure checked, having a chat and consulting. This is the case in various countries and polypharmacy is the main problem among the geriatric group as stated by the pharmacists in our study (16–18).

One pharmacist stated that some of his patients in this age group needs affection and interest because of loneliness. Some pharmacists stated their older patients have Alzheimer's disease or cerebrovascular diseases. Likewise in a study conducted in USA researchers found that emotional and mental health were the most important factors accounting for nonprescription drug use among the elderly (19).

One pharmacist indicated that his older patients are sometimes confused about when/how to take their medicines, or how to store them. Others emphasized that their elder patients sometimes underuse or overuse their drugs. Similarly to the pharmacists' statements, the results of structured interviews of fifty persons aged 65 years and older who were living independently in the community indicated that hazardous as well as wasteful practices were occurring in their medication taking behavior. More than 50% of the medications used by this population were being taken without adequate instructions and twenty-five percent of the medications were not being taken as labeled (20).

Furthermore pharmacists indicated several problems among elderly patients ranging from forgetfulness, mixing up drugs, low perception to switching their healthcare provider frequently. The findings from other studies underlie more or less the same problems. For example in a study in USA, it was observed that substantial proportion of older adults on high-risk medications did not recall receiving instructions for the use of their medications and did not take advantage of existing systems for organizing medication regimens (21). Likewise a research conducted in UK, showed elderly people had drug-taking difficulties, did not store their medicines correctly, under 50 % used a covered container such as a drawer or box when storing medicines and some patients exceeded the prescribed dose, some took drugs less often than instructed (22).

Most common diseases and consumed medicines among elderly patients was another topic of our study. Pharmacists mainly indicated the following diseases for their patients: Hypertension, diabetes mellitus, cardiovascular diseases, asthma, mental diseases. This group of patients mostly consumed the following drugs: Antihypertensives, antidiabetics, antasthmatics. There are different studies supporting our findings in this study. For instance one study proved that the highest prevalence of multiple medication use was among those with heart disease, diabetes, and asthma in the elderly patients. The five drugs most commonly taken by people aged 65 and older were pain killers, blood pressure medications, heart medications, diuretics, stomach remedies, and laxatives (23). A study focusing on elderly revealed that the medication classes associated with polypharmacy include cardiovascular drugs, hormonal drugs, pain medications, and gastrointestinal drugs. Also among older people the following diseases were common: Arthritis, asthma, high cholesterol, diabetes, chronic pain (24).

Finally how services provided from community pharmacists to the geriatric patients could be improved was a question of interest in our research. For this topic almost all of the pharmacists complained about the bureaucracy they face with during their practice. This is a fact for Turkey. And the government should take required steps for relieving the unnecessary workload from the shoulders of pharmacists. Thus pharmacists will have more time to contact with their patients and deal with their problems. Also building a healthy communication process between the pharmacist and the patient is significant in this context. Because it cannot be ignored that the higher the quality of the communication process, the better the patient outcomes (25).

In conclusion, there are some responsibilities that the pharmacists should take within the context of geriatric discipline which became multidisciplinary and very popular in recent years. In this context pharmacy profession needs practicing and requires a great responsibility. One of the missions of pharmacy profession is increasing the quality of life of the patients. This profession plays a significant role starting from the medicine design till providing it to the consumer, even after that patient follow up by the pharmacist continues. Thus it cannot be ignored that pharmacists are important in the process of healthy living and aging. In the first place pharmacist should contact with the patient particularly to prevent adverse reactions, guarantee drug effectiveness and assure compliance/adherence. Also he should provide simple and clear information on diseases, medicines (how to use/store them correctly), besides he should educate patients on these underlined subjects. Furthermore, geriatric patient's drug regime (dosing, duration of drug therapy, etc.)



should be controlled by the pharmacist in terms of appropriateness. He should check whether therapeutic duplications and/or drug-drug, drug-food, drug-disease interactions exist. He should notice whether the patient's knowledge on drug use instructions are true or not. He should listen to the patients, give necessary information and do follow up with patience. Medicine usage instructions should be easy to understand and apply, if needed written information should be provided with clear expressions as well. Not least but the last verbal explanations should be repeated until the patient has no uncertain information in his mind. For good pharmacy practise, mainly elderly patients and/or patient relatives, other community members should be educated by means of mass communication.

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