

CONSUMERS' SATISFACTION ABOUT PHARMACEUTICAL CARE PROVIDED BY PHARMACIST IN RA

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Consumers' satisfaction about Pharmaceutical care provided by pharmacist in RA

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Pharmacy professionals are drug experts who can provide medicine information, optimized medicine therapy management, promoting safe and cost effective use of medications for positive therapeutic outcome. Evaluation of consumer satisfaction with pharmaceutical care as a crucial part of the health services through appropriate studies is important to identify gaps and factors influencing it.

Purpose: to analyze and evaluate the satisfaction of general consumers about pharmaceutical care provided in pharmacies of the Republic of Armenia (RA).

Methods. The study was carried out among 383 consumers using pharmacy in the regions of Armenia and Yerevan. The research instrument was a questionnaire. Statistical analyses were performed using Statistical Package for the Social Sciences (SPSS) software (version 11.0).

Results. During the study it becomes clear that a very small percentage of consumers (17%) consulted by a pharmacy employees in case of minor ailments. Most of them don't get the necessary information about medicine from the pharmacy employee. They use OTC medicine independently taking into account their previous experience (25%), they apply to the physician (34%), sometimes use the internet (11%) and advertising information (11%). Very few of them are clearly satisfied with the answers of a pharmacy employee (29%) and fully trust them (26%).

Conclusions. Steps should be taken for improving the professional knowledge of pharmacy employees about medicines and pharmaceutical care, which, in its turn, can restore consumer trust in them, promote the rational use of Over the counter (OTC) medicines by consumers, and also effect the economic and financial situation of the pharmacy. Research data can be considered as an indicator that there is a need to develop pharmaceutical care algorithms which can help for advice.

Keywords: *Pharmaceutical care, self-medication, consumer satisfaction, pharmacy employee, algorithm.*

Тұтынушылардың Армения Республикасында дәріхана қызметкерлерінің ұсынған фармацевтикалық көмегіне қанағаттануы

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Медициналық қызметтердің маңызды бөлігі ретінде фармацевтикалық көмекке тұтынушылардың қанағаттанушылығын бағалау, тиісті зерттеулердің көмегімен олқылықтар мен оған әсер ететін факторларды анықтау.

Мақсаты. Зерттеудің мақсаты - Армения Республикасының дәріханаларында көрсетілетін фармацевтикалық көмекке қарапайым тұтынушылардың қанағаттанушылығын талдау және бағалау.

Әдістері. Зерттеу 2018 жыл мен 2019 жылдың бірінші тоқсанында Армения мен Ереван аймақтарындағы дәріхананы пайдаланатын 383 тұтынушының



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арасында жүргізілді. Зерттеу құралы армян тілінде жазылған сауалнама болды. Нәтижелерді талдау үшін SPSS бағдарламалар пакеті қолданылды (12.0 нұсқасы). **Нәтижелер.** Зерттеу барысында тұтынушылардың өте аз пайызы кішігірім ауру жағдайында ғана дәріхана қызметкерінен көмек сұрайтыны белгілі болды. Олардың көпшілігі дәріхананың медицина қызметкерінен қажетті ақпаратты алмайды. Олар алдыңғы тәжірибені ескере отырып, дәрі-дәрмектерді өз бетінше қабылдайды, дәрігерге барады, кейде интернет пен жарнамалық ақпаратты пайдаланады. Тек өте аз бөлігі дәріхана қызметкерінің жауаптарына қанағаттанады және оларға толықтай сенеді.

Қорытынды. Фармацевттердің дәрі-дәрмектер туралы кәсіби білімін жақсарту үшін қадамдар жасау қажет, бұл өз кезегінде тұтынушылардың оларға деген сенімін қалпына келтіреді, тұтынушылардың дәрі-дәрмектерді ұтымды пайдалануына ықпал етеді, сонымен қатар дәріхананың экономикалық және қаржылық жағдайына әсер етеді. Зерттеу деректерін кеңес алуға көмектесетін фармацевтикалық көмек алгоритмдерін әзірлеу қажеттілігі бар көрсеткіш ретінде қарастыруға болады.

Негізгі сөздер: фармацевтикалық көмек, өзін-өзі емдеу, пациенттердің қанағаттануы, дәріхана қызметкерлері, алгоритм.

Удовлетворенность потребителей фармацевтической опекой, предоставленной персоналом аптек в Республике Армения

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Оценка удовлетворенности потребителей фармацевтической опекой как важнейшей частью медицинских услуг с помощью соответствующих исследований важна для выявления пробелов и факторов, влияющих на нее.

Цель. Целью исследования было проанализировать и оценить удовлетворенность обычных потребителей фармацевтической помощью, оказываемой в аптеках Республики Армения.

Методы. Исследование было проведено среди 383 потребителей, пользующихся аптекой в регионах Армении и Еревана в 2018 г. и первом квартале 2019 г. Инструментом исследования была анкета, написанная на армянском языке. Для анализа результатов использовался пакет программ SPSS (версия 12.0).

Результаты. В ходе исследования выяснилось, что очень небольшой процент потребителей обращается за помощью к сотруднику аптеки в случае незначительных недомоганий. Большинство из них не получают необходимую информацию от медработника аптеки. Они самостоятельно принимают лекарства с учетом предыдущего опыта, обращаются к врачу, иногда используют интернет и рекламную информацию. Очень немногие из них явно удовлетворены ответами сотрудника аптеки и полностью им доверяют.

Выводы. Необходимо предпринять шаги для улучшения профессиональных знаний фармацевтов о лекарственных средствах, что, в свою очередь, может восстановить доверие потребителей к ним, способствовать рациональному использованию безрецептурных лекарств потребителями, а также повлиять на экономическое и финансовое положение аптеки. Данные исследований могут рассматриваться как показатель того, что существует необходимость в разработке алгоритмов фармацевтической помощи, которые могут помочь в получении совета.

Ключевые слова: Фармацевтическая опека, самолечение, удовлетворенность пациентов, сотрудники аптеки, алгоритм.

Introduction

Around the world, more and more people use over-the-counter medicines for self-medication [1,2]. With the increasing usage of OTC medicines, irrational medicine use and adverse drug reactions are also becoming important health care problems [3].

The use of medicines without prior medical consultation regarding indication, dosage, and duration of treatment is referred to as self-medication [4]. This inappropriate use may result in irrational medicine use,

delayed seeking medical advice, increased side effects and drug interactions [5]. The prevalence of self-medication was 75% in Chile, 65% in Brazil, and 53% in Mexico [6,7].

Over the past four decades, the pharmacy profession has made considerable efforts to shift its focus from medication supply to direct patient care [8]. Pharmacists are expected to provide pharmaceutical care within a patient-pharmacist professional framework that is based upon caring, trust, communication, cooperation,

and mutual decision making in which the pharmacist works very closely with the patient [9,10]. Pharmacists and patients both have specific and significant roles and responsibilities in the pharmacist-patient professional relationship [11].

First of all, patients need pharmaceutical care during discharge of OTC medicines. All prescription (Rx) and non-prescription (over-the-counter = OTC) medicines can be purchased only from pharmacy [12].

The impact pharmacy employees can have on patient care can be measured not only by clinical outcomes but also by patient satisfaction with the service [13]. It is widely accepted that consumer satisfaction is an integral component of the quality of health care [14]. Various studies have been conducted worldwide assessing public's or patient's satisfaction of the roles and responsibilities of pharmacists [15,16,17,18].

There is no doubt that pharmacies must now try to create new image by overcoming the perception of pharmacist as medicine dispenser to professional provider of healthcare goods and services oriented to patient needs with the aim of fully satisfying them. Pharmacists who can demonstrate greater patient satisfaction may be at a competitive advantage. It can be translated into greater loyalty to particular pharmacies and can facilitate the provision of pharmaceutical care through better consumer-pharmacist communication. Patient satisfaction becomes an important indicator of availability and quality of provided care. The current offer of pharmaceutical care in community pharmacies exceeds demand, the consumer has a choice, and consumer's satisfaction begins to play an important role in pharmaceutical care [19].

Generally, patient/consumer satisfaction is an important measure of how well services are provided [20]. Community pharmacists have difficult choice in balancing the commercial and professional aspects of their profession. In RA, like in other countries, pharmacy runs on a profit basis and is not subsidized by the state, therefore if pharmacy wants to survive, profit is a must. Pharmacy has the hard dual role – commercial and professional. As the solution of this duality may be consistent patient / consumer-centered orientation which should in turn provide financial stability. We believe that patient/consumer satisfaction can significantly contribute and influence the economic and financial situation of the pharmacies.

The role of the pharmacist and also consumer satisfaction with the pharmaceutical care providing in pharmacies in RA has not been the subject of serious analysis.

The study assesses the role of the pharmacist in consumer's satisfaction and necessity of using pharmaceutical care, which can manage self-medication.

This study was conducted to assess the impact of pharmacy employee interventions on self-medications in RA. Received data from a patient satisfaction survey can serve as an indicator of service quality provided. It is

expected that such a study would be a useful addition to the existing data worldwide.

The purpose of the study was to analyze and evaluate the satisfaction of general consumers with pharmaceutical care provided by pharmacy employee.

Methods

The present study is a cross-sectional (survey) study that examines the consumers of pharmacies living in Armenia in 2018 - 2019. The primary information has been collected using a questionnaire (a structured questionnaire) and as a result of statistical processing of the data obtained during a sociological survey we received the final result.

To determine the level of consumer satisfaction in the services provided by pharmacy employees in the Republic of Armenia, we used the questionnaire survey method developed on the basis of standard WHO consultation questionnaires (2006), taking into account the specifics of work [21]. Questioning is a method of obtaining information by written responses of respondents to system of standardized questionnaire issues.

Mathematical processing of the information array was carried out using modern computer technologies. The sizes of the sample were determined by the formula of repeated random selection:

$$n = \frac{Nxz^2 p (1 - p)}{d^2xN + z^2 p(1 - p)}$$

where n is the size of the sample;

N- population of the Republic of Armenia

z – probability of the error of the first type (α) not exceeding 0.05 and equal to 1.96

p- estimated proportion of the population

d - tolerated margin of error

Number of questionnaires distribution in the RA was determined by The Survey System Version 11.0 taking into account the number of the population surveyed (n= 2972700 in RA), taking into consideration the volume of the surveyed, the first type error is with 5% probability ($\alpha = 0, 05$), the evaluation accuracy is 3% ($\Delta = 3\%$). We considered the worst-case scenario - P = 0.5, since the results of similar studies conducted in Armenia were not found.

$$n = \frac{2972700 \times 1,962 \times 0,5(1 - 0,5)}{0,052 \times 2972700 + 1,962 \times 0,5(1 - 0,5)}$$

n= 383

Taking into consideration the multiple content of the survey, we have presented questionnaires suggested by YSMU SRC and approved by YSMU Ethics Committee: Pharm Test A, Pharm Test B, Pharm Test C, Pharm Test D, each of which includes a specific questions [22].

The results of this study were made by statistical methods that were universally recognized. The collected data were registered in statistical the SPSS software package (version12.0).

The survey was conducted among 383 consumers

selected randomly sampling in the regions of the Republic of Armenia and in Yerevan in 2018 and the first quarter of 2019, using anonymous profiles. Questionnaires drawn up in Armenian were accessible and understandable to users of all age groups and educational levels. Criteria including age 18+, permanent residence in Armenia. The survey was conducted in accordance with the wishes of the participants.

In the research process are used: systemic, logical types of analysis, comparison method, sociological research method.

Results

There were 383 consumer/patients randomly surveyed in RA. The results of the questionnaire survey carried out among consumers with different ages and education. Comparatively, there was a higher percentage of participants in the age group of 18–30 (26%) and only few in the 61-and more (2%) age group. Majority of the participants were well educated having a higher educational qualification (47%), 22% have a vocation education. To the question “who do you often turn to most for advice will taking a medicine”, the answers were classified as follows: most consumers (34%) apply to physician, 25% use medicines in case of minor ailments independently taking into account their previous experience, without any consultation, 17% resort to the pharmacy employee consultation (Fig.1).

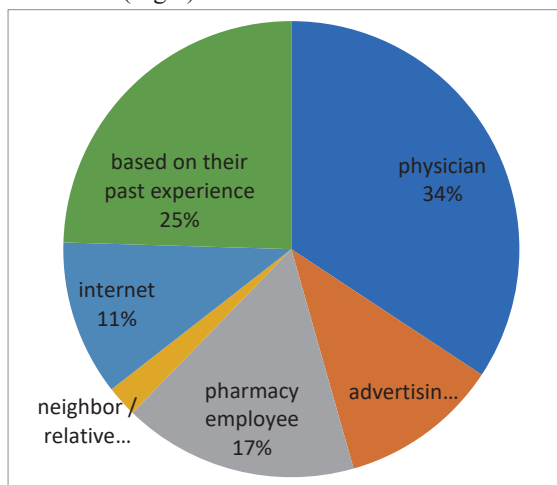


Fig.1. Sources of counseling for minor ailments.

It turns out that only a small percentage of consumers (26%) trust a pharmacy employee, 21% of consumers don't trust a pharmacy employee at all, and the majority (53%) said that they sometimes trust and use the advice of a pharmacy employee, which allow them to begin the process of self-medication (Fig.2).

To the question “Can a pharmacy employee answer your questions fully?” Most consumers (49%) answered that they are sometimes satisfied with the answers of a pharmacy employee. 29% of them clearly stated that a pharmacy employee was aware of all the questions asked, and 22% said that a pharmacist could not answer the questions (Fig.3).

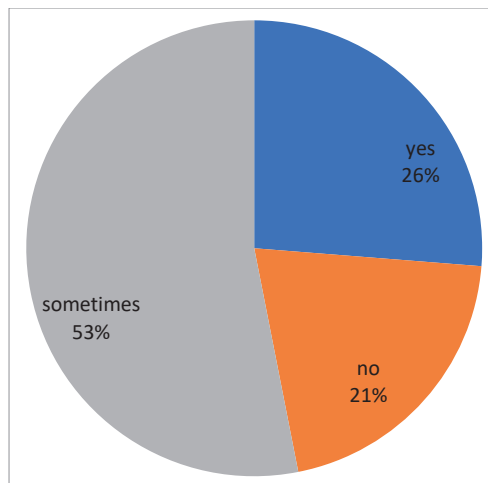


Fig.2. Consumer trust to the advice of the pharmacy employee

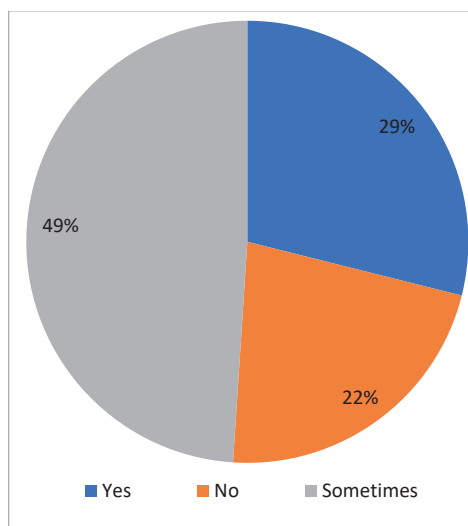


Fig.3. Consumer satisfaction with the answers by pharmacy employee about OTC medicines

Discussion

According to our survey, most consumers choose OTC drugs independently without consulting a pharmacy employee based on their past experience. The Internet and advertising have also served as information sources for consumers when choosing OTC drugs, and though such consumers have a small percentage among all respondents, it should be taken into account that self-medication tends to grow rapidly. Advertising for pharmaceutical companies serves as a means of transmitting commercial information that can also promote the self-medication process. Internet information, however, cannot be subject to strict regulation and can be confusing and even misleading for consumers. Thus, without the professional and reliable advice of a pharmacy employee, self-medication for OTC drug users can be risky.

Only 26% of respondents trusted a pharmacy employee fully. Similar results were obtained in surveys in Saudi Arabia, where almost half of the participants distrusted the

pharmacy employee, considering him/her just a salesman, and almost 56% of the participants believed that the pharmacy employee was more interested in profits. When we compare these results with the results of our study, we understand that the picture is much worse with consumer confidence only 26%.

According to the results of our survey, the majority of consumers (34%) seek for the advice of a physician before going to the pharmacy. Surely, this is a good indicator in self-medication process, but we do know that we have some mild illnesses and a large group of OTC drugs that the patient can buy from the pharmacy without a doctor's prescription, saving time and money. It is assumed that a large number of consumers in the RA, regardless of whether they have a serious illness or a mild one, turn to a doctor, as they do not trust the advice of the pharmacy employee. It should not be forgotten that the pharmacy employee is a mediator between the doctor and the patient. At the time of the medication choice, a pharmacy employee should not replace the doctor because he does not know the personality of the patient's organism, the course of the disease and in case of necessity, the pharmacy staff should guide the patient to the doctor.

Thus, when consumers lose their trust in the pharmacy employee, it is difficult for the pharmacist to provide pharmaceutical care. This indicates that consumer trust plays an important role in determining the quality of pharmaceutical care.

The survey also studied consumer satisfaction with pharmacy staff responses about OTC drugs. Very few of them (29%) were clearly satisfied with the answers of the pharmacy employee and fully trust them. This result is similar to the findings of the study conducted in Qatar, where only 37% of the public agreed that Qatar's pharmacists were knowledgeable enough and were always ready to answer questions. The consumer should receive a fully-fledged information from the pharmacy employee, whether he/she should use the very medication for specific benefits and results. It can be assumed that

inadequate knowledge of the pharmacy staff, inadequate communication skills result in limited patient interaction impeding the formation of interpersonal trust. Steps should be taken to improve the quality and amount of information to enable consumers better self-identification on whether treatment is indicated, enable consumers to more realistically appraise the benefits, and also enables consumers to better understand the risks. The pharmacist's responsibility is to report all the information about chosen medicine, the patient's right is to receive that information.

Conclusion

From the results of the study, it can be concluded that in Armenia:

- self-medication is prevalent among consumers
- most consumers don't trust and are not satisfied with pharmacy staff responses about OTC medicines.

The evaluation of patient/consumer satisfaction with the provided care carried in community pharmacies in RA is not utilized in practice, however it is proven that it contributes to improving the quality of healthcare provided as well as the financial situation of the community pharmacy. Improving the professional knowledge of the pharmacy staff on medicines and pharmaceutical care will support their professional counseling and thus the pharmacist will be ready to fully answer consumer questions about medicines and provide the necessary information. Complex actions of pharmacy staff and pharmacy should be taken to restore consumer confidence in the pharmacy staff, which will promote safe and appropriate use of OTC drugs by consumers. A qualified, knowledgeable pharmacist will help avoid self-medication errors by providing advice on OTC drugs. Providing information on drugs is an important strategy that can promote safe and effective drug use. Research data can be reviewed as an indicator of the need to develop pharmaceutical care algorithms to assist the pharmacy employees, facilitate their work, save time, and refer the patient to the physician if necessary.

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Authorship

L.G. Nazaryan, A.B. Barseghyan - made a significant contribution to the concept and design of the study, analysis and interpretation of data

M.G. Simonyan - prepared the first version of the article

A.E. Tadevosyan - participated in the analysis of the data, approved the final version of the manuscript for submission to the editor.

The authors confirm the absence of a conflict of interest.