



PROBLEMS OF RESPONSIBLE SELF-MEDICATION OF ALLERGY SYMPTOMS AND FARMACEUTICAL COUNSELING

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Cure of allergy symptoms reported by a patient with the help of non-prescription antiallergic drugs, is one of the important aspects of a responsible self-medication.

The aim of the study is to assess the peculiarities of consumers' behavior as pharmacy visitors, when choosing non-prescription antiallergic drugs, and to identify potential problems of pharmaceutical counseling for allergy symptoms regarding the responsible self-medication.

Materials and methods. Sociological survey in the form of a questionnaire; graphoanalytical and comparative analyses.

Results. The profile of an over-the-counter antiallergic drugs buyer in the pharmacies of Kazan was assessed in the following way: it is a woman aged 18–44 of a middle level of income, having a family of 3–4 people, ready to spend from 101 to 500 rubles on the purchase of antiallergic drugs, buying anti-allergic drugs not for the first time. The main reasons to seek for treatment were skin rash, redness and itching, which had also been observed in the past. The allergic nature of the disease had already been confirmed by the doctor. For the average consumer of over-the-counter antiallergic drugs, the most important criteria for choosing a medicine were: efficiency, safety, the doctor's recommendations and price. The medicines were purchased for the visitors themselves or their children. The customers were satisfied with the choice of non-prescription antiallergic medicines available in the pharmacy. The visitors generally trusted the pharmacists' advice and recognized them as health professionals, but considered that the main goal was not only to provide a pharmaceutical care, but also to profit from the sale of the drugs. The following flaws of pharmaceutical counseling when dispensing non-prescription antiallergic drugs, were identified: an improper diagnosis by a pharmaceutical specialist, the lack of recommendations to consult a doctor, incomplete provision of information on the use, storage, and the possibility of interaction with other drugs and food.

Conclusion. Misdiagnosis and incomplete provision of information by pharmaceutical specialists on antiallergic the drugs that are approved for the over-the-counter dispensing, require the implementation of a pharmaceutical consultation algorithm for the visitors contacting a pharmacy with allergy symptoms.

Keywords: consumer; pharmacy; antiallergic drugs; over-the-counter drugs; pharmaceutical counseling

ПРОБЛЕМЫ ОТВЕТСТВЕННОГО САМОЛЕЧЕНИЯ ПРИ СИМПТОМАХ АЛЛЕРГИИ И ФАРМАЦЕВТИЧЕСКОЕ КОНСУЛЬТИРОВАНИЕ

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Распознавание и устранение пациентом симптомов аллергии, с помощью противоаллергических лекарственных препаратов (ЛП), разрешенных к отпуску без рецепта врача, является одним из актуальных направлений ответственного самолечения.

Цель. Изучение особенностей потребительского поведения посетителей аптеки при выборе противоаллергических лекарственных препаратов безрецептурного отпуска и выявление проблем фармацевтического консультирования при симптомах аллергии в рамках ответственного самолечения.

Материалы и методы. Социологический опрос в форме анкетирования, графоаналитический, сравнительный анализ.

Результаты. Сформирован среднестатистический портрет покупателя противоаллергических лекарственных препаратов, разрешенных к отпуску без рецепта врача, в аптеках г. Казани: женщина в возрасте 18–44 года, имеет семью из 3–4 человек, среднего уровня финансового достатка, при этом готова потратить на покупку противоаллергических лекарственных препаратов от 101 до 500 рублей; покупает противоаллергические лекарственные препараты не в первый раз. Основными причинами обращения являются: сыпь на коже, покраснение и зуд, которые наблюдались ранее. Аллергическая природа заболевания была установлена врачом. Для среднестатистического потребителя противоаллергических лекарственных препаратов, разрешенных к отпуску без рецепта врача, важным критерием при выборе лекарства являются эффективность, безопасность, рекомендации врача и цена. Покупки совершаются для себя или ребенка. Аптечным ассортиментом противоаллергических лекарственных препаратов безрецептурного отпуска покупатели удовлетворены. Советам аптечного работника посетители аптек в основном доверяют и считают их работниками здравоохранения, однако, их главной целью считают не только оказание фармацевтической помощи, но и получение прибыли от продажи лекарств. Выявлены недостатки фармацевтического консультирования при отпуске противоаллергических лекарственных препаратов безрецептурного отпуска (ЛП БРО): неправомерное выставление диагноза фармацевтическим работником и отсутствие рекомендаций о необходимости консультации врача; неполное предоставление информации по вопросам применения, хранения, возможности взаимодействия с другими лекарствами и пищей.

Заключение. Неправомерное выставление диагноза и неполное предоставление информации фармацевтическим работником о противоаллергических лекарственных препаратах, разрешенных к отпуску без рецепта врача, требуют разработки алгоритма фармацевтического консультирования при обращении в аптеку с симптомами аллергии.

Ключевые слова: потребитель; аптека; противоаллергические лекарственные препараты; безрецептурный отпуск; фармацевтическое консультирование

INTRODUCTION

Research on medicines consumption is essential for the development of an integral component of the rational drug use system [1]. The issues of self-medication are of particular importance for both domestic and foreign health care systems. The current trend of the domestic pharmaceutical market is an over-the-counter (OTC) drugs sales increase [2], so the role and responsibility of the pharmaceutical personnel of pharmacies as health professionals will be growing [3–5].

According to the professional standard approved by the journal of «Pharmacist»¹, in the Russian Federation the activity of a pharmacist is a significant part of preventive work with the population («outreach and awareness-raising work to promote a healthy lifestyle»), i. e. ensuring the rational use of both prescription and non-prescription drugs within the framework of responsible self-medication («qualified pharmaceutical assistance to the population and patients of medical organizations», «informing the population and medical specialists about medicines and other goods in the pharmacy range»). Herewith, the Professional Standard stipulates the need for «keeping to moral and ethical standards of professional activities». It determines the social responsibility of the pharmacist in maintaining and strength-

ening the health of the population, the development of a healthy lifestyle, and is especially important for the reasonable, effective and safe use of OTC drugs abreast of the growth of their active advertising and other methods of promotion [6, 7].

Allergic diseases remain a relevant world health problem [8, 9], while the cure of various allergy symptoms, recognized by the patient, with the help of non-prescription antiallergic drugs is one of the topical areas of responsible self-medication [10, 11].

Foreign standardized protocols of a senior pharmacist (dispenser) on advising OTC drugs for symptomatic treatment of allergies, are not fully applicable to the realities of domestic pharmaceutical practice due to differences in the range of drugs and in the order of their dispensing from pharmacies [12, 13].

Regarding the marketing research, the study of medicines consumers would help to determine the behavior model, form a rational assortment of OTC drugs in a pharmacy, as well as to identify the problems associated with consumers' dissatisfaction with the service, the affordability of the necessary drugs and the quality of pharmaceutical care [14, 15]. A wide range of anti-allergic OTC drugs is presented on the Russian pharmaceutical market [16]. Portraying the profile of an OTC antiallergic drugs consumer and detecting the problems in pharmaceutical counseling for allergy symptoms, is an important step to fulfil the concept of responsible self-medication and pharmaceutical care improvement.

¹ Order of the Ministry of Labor and Social Protection of the Russian Federation, March 9, 2016 No. 91n. On the approval of the professional standard «Pharmacist», URL: http://www.consultant.ru/document/cons_doc_LAW_196697/

THE AIM of the study is to assess the peculiarities of consumers' behavior as pharmacy visitors, when choosing non-prescription antiallergic drugs, and to identify potential problems of pharmaceutical counseling for allergy symptoms regarding the responsible self-medication.

MATERIALS AND METHODS

To achieve this aim, a questionnaire for pharmacy visitors who had contacted pharmaceutical workers regarding the purchase and / or use of OTC antiallergic drugs, was developed by the authors. The questionnaire included 18 questions, clustered into 5 blocks: socio-demographic characteristics of a pharmacy visitor – a consumer of OTC anti-allergic drugs; self-reported health status regarding the visitors' allergy symptoms; purchase characteristics; behavioral characteristics; assessment of the pharmaceutical care quality.

The survey was carried out at the pharmacies of the «MegaPharm Kazan» trading network (Kazan) from February to December 2018; a total of 100 respondents were interviewed. The data processing was performed using the Microsoft Excel software.

RESULTS AND DISCUSSION

The study of socio-demographic characteristics has shown that among the visitors who contacted a pharmaceutical worker for the purchase and/or use of OTC antiallergic drugs for allergy symptoms, were women (67% of the total number of respondents). Most of the respondents were from 18 to 44 years old (43%).

The largest group (32%) of OTC antiallergic drugs consumers had a family of 4 or more people, 31% – of 3, 20% – of 2, 17% of the consumers said they were single.

Important socio-demographic parameters are income and monthly expenses for the purchase of OTC anti-allergic drugs. These data make it possible to assess the respondent's standard of living, which has a significant impact on the choice and consumption of the studied group of drugs.

Out of 100 respondents, 43% characterized themselves as middle-income people, 37% – as low-income ones, 13% – as rather well-to-do, 7% reported their incomes as "upper-middle". Only 22% of the consumers were ready to purchase OTC anti-allergic drugs for a price higher than 500 rubles; 43% were ready to spend from 101 to 500 rubles, and 35% were ready to spend up to 100 rubles.

Based on the frequency of purchases of OTC anti-allergic drugs, the respondents were distributed as follows: permanent customers – 22%, rare customers – 49%, the customers who made their purchase for the first time – 29%.

Further, the predominant allergy symptoms, which had most often been the reason for the independent

choice and purchase of OTC antiallergic drugs, were identified (Fig. 1).

Most of the respondents – the consumers of OTC antiallergic drugs (45%) – went to a pharmacy with a predominant symptom of «skin rash». Redness and itching of the skin and mucous membranes were the reason for the purchase of OTC antiallergic drugs in 27% of patients. Symptoms of allergic rhinitis, sneezing and coughing, lacrimation, were the reasons to seek for a pharmacist's advice in 8%, 10% and 5% of patients, respectively. 5% of respondents applied to a pharmacy for OTC antiallergic drugs due to the symptoms of shortness of breath and difficulty in breathing (Fig. 1).

The above listed symptoms were first noticed by 35% of the respondents, and 65% of the visitors had observed them before. Half of the respondents (51%) were diagnosed with an allergic disease earlier by a doctor; 15% of respondents consulted a senior pharmacist in a pharmacy and suggested an allergic nature of the symptoms that bother them; the same number of respondents (15%) concluded themselves that they had an allergy. 19% of the respondents decided that they had manifestations of allergy, based on the Internet resources (Fig. 2).

The most important criteria for the respondents when choosing the OTC antiallergic drugs were efficiency (90%), safety (89%) and doctors' recommendations (87%). The price of a medicine turned out to be slightly less important for the respondents (70%). The dosage form was important for 50% of the respondents and 60% also noted the importance of OTC drug usage frequency. Such characteristics of OTC medicines as the manufacturer and originality (a reference or generic drug) turned out to be important for 35% and 25% of the respondents, respectively (Fig. 3).

The surveyed pharmacy visitors usually bought antiallergic OTC drugs for themselves (45%) and for their children (30%). However, 9% of the respondents purchased antiallergic OTC drugs "for emergency" in their home first-aid kit, and 16% – for other adult family members.

The vast majority of respondents rated the assortment of OTC antiallergic medicines in the pharmacy organizations of «MegaPharm» LLC as wide – 78%, but 22% of the visitors found it insufficient.

When making a choice of OTC anti-allergic drugs, the largest number of the respondents focused on the doctors' recommendations (66%), the smallest (1%) – on their friends advice. 15% of the respondents chose OTC antiallergic drugs at their own discretion, 10% based on a pharmaceutical specialist's advice; 8% acted under the influence of advertising (Fig. 4).

It was found out that 90% of the people who looked for OTC anti-allergic drugs, trusted pharmacy specialists' advice, and 10% of the respondents reported their distrust of them.

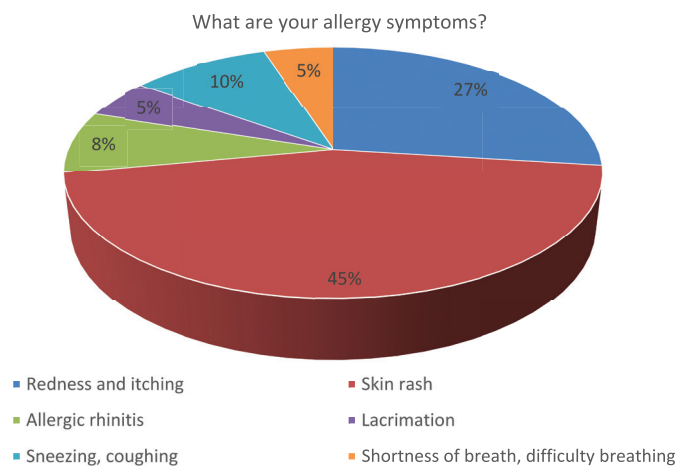


Figure 1 – The symptoms that were the reason for going to the pharmacy for non-prescription antiallergic drugs

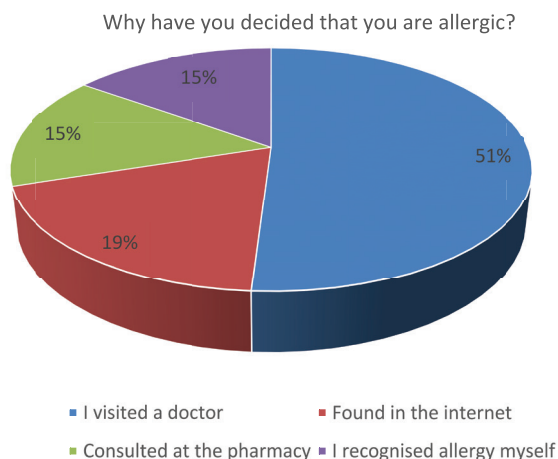


Figure 2 – Sources of information about the allergic nature of symptoms – the reasons for going to the pharmacy

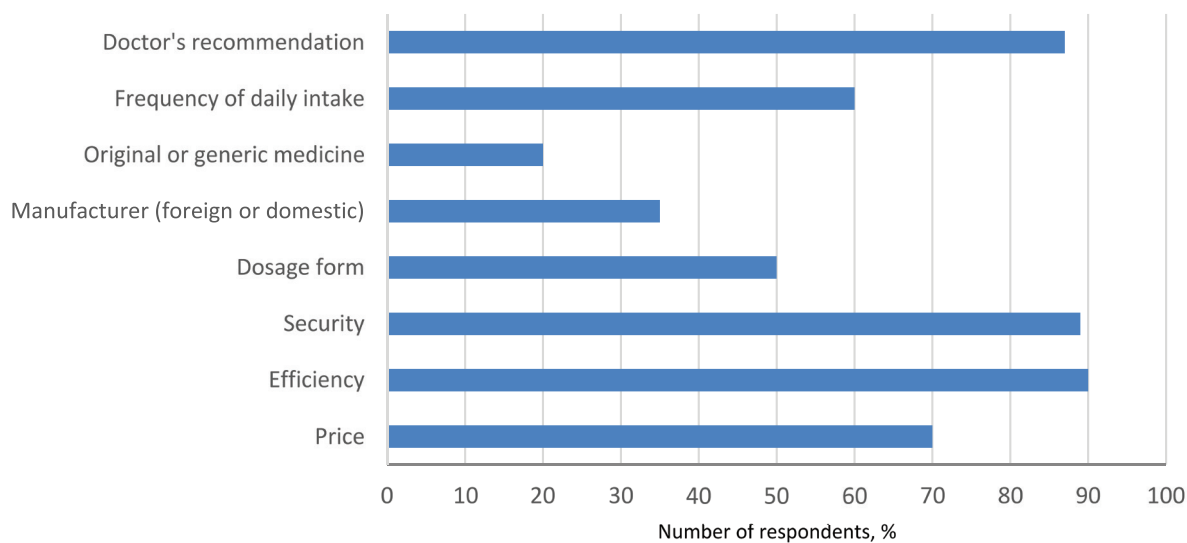


Figure 3 – Criteria for choosing over-the-counter antiallergic drugs by buyers

Source of information influencing the choice of anti-allergic non-prescription drugs

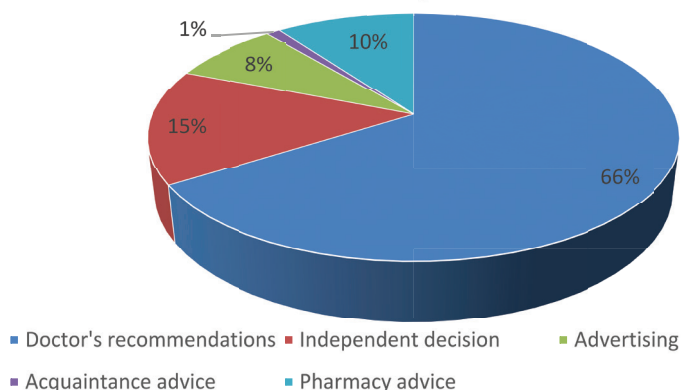


Figure 4 – Sources of information affecting the choice of non-prescription antiallergic drugs

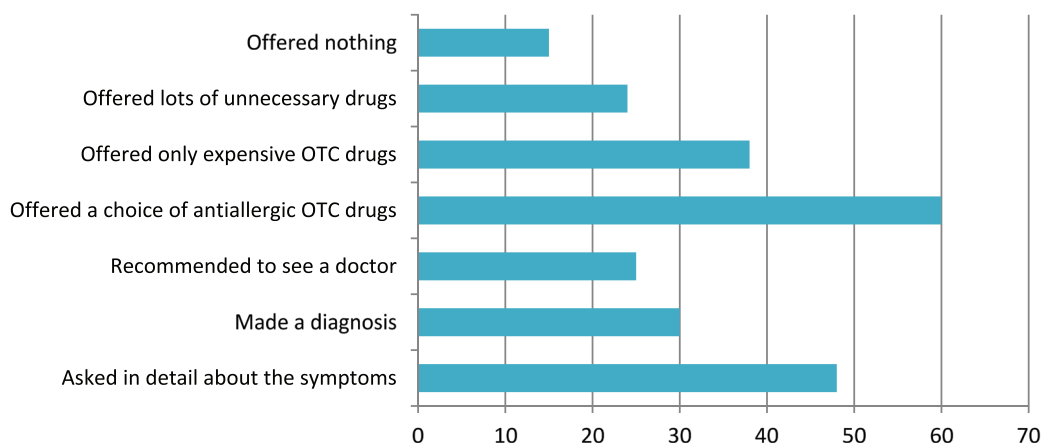


Figure 5 – Actions by a pharmacist in case of a visitor with allergy symptoms

Counseling when dispensing an OTC antiallergic drug (%):

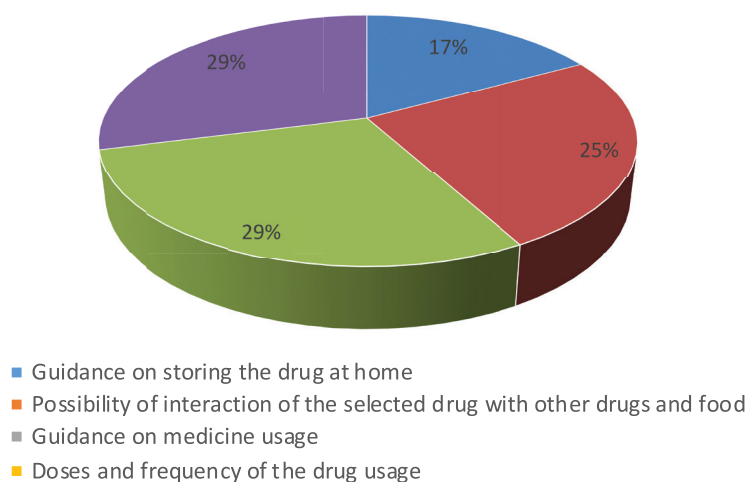


Figure 6 – Counseling when dispensing non-prescription antiallergic drugs

The next set of questions was focused on the quality of pharmaceutical consulting, i.e. the compliance of pharmacy specialists with the requirements of Order of the Ministry of Health of the Russian Federation dated 31 August, 2016, No. 647n «On approval of the rules for good pharmacy practice of drugs for medical use»². The analysis of pharmaceutical specialists' actions showed that in case consumers with allergy symptoms were visiting a pharmacy, specialists most often (in 60% of cases) offered a choice of OTC anti-allergic drugs of different price categories. 38% of the respondents believed that they were offered only expensive drugs, and 24% – unnecessary ones. According to 48% of the respondents, a pharmaceutical specialist asked them in detail about the symptoms – the reasons for going to the pharmacy as a part of responsible self-medication, and 30% even made a diagnosis. Only 25% of the surveyed indicated that a pharmacist recommended seeing a doctor. 15% of the consumers evaluated the pharmacists' actions as «offering nothing» (Fig. 5)

When answering a question of evaluating a pharmaceutical specialist's actions when dealing with a visitor complaining of the allergy symptoms, 29% of the respondents notified that when dispensing OTC anti-allergic drugs, pharmacists drew their attention to the method of usage of the purchased drug, the dose and the frequency of administration; 25% focused on possible drug and food interactions; 17% concentrated their attention on the peculiarities of OTC medicines storage at home (Fig. 6).

It should be notified that the approval of the professional standard represented in «Pharmacist» and Order of the Ministry of Health of the Russian Federation dated 31 August, 2016, No.647n «On the approval of the Rules of Good Pharmacy Practice of Medicines for Medical Use», increased the quality of information and consulting services: the study by O.A. Ryzhova, T.L. Moroz (2016) revealed that 50% of pharmaceutical specialists do not provide any information when dispensing medicines [17]. However, current recommendations for pharmaceutical consulting lack specificities [18,19].

The analysis of the consumers' opinions regarding the functions of pharmaceutical specialists, revealed that 60% of buyers of antiallergic OTC drugs identified pharmacy specialists with health professionals. Pharmacy specialists were recognized as trade workers by 22% of the respondents, and 18% of the respondents found it difficult to answer.

Answering the question about the goals of pharmacy specialists, only 57% of the respondents chose “the provision of pharmaceutical care” as pharmacists' main priority; 27% marked “making a profit from the sales of medicines”, and 16% of the respondents believed that a

pharmacy specialist is interested in both profit and providing pharmaceutical assistance”.

Thus, as representatives of the health care system, pharmaceutical specialists are highly reputed by pharmacy visitors. An increasingly larger role of pharmaceutical specialists as health professionals, is notified by the World Health Organization (WHO), the International Pharmaceutical Federation (IPF), in publications of domestic and foreign scientists [20–23]. At the same time, in contrast to doctors, there are no standardized and approved protocols of pharmaceutical counseling in the framework of responsible self-medication for pharmaceutical specialists in Russia.

Performing medical functions – asking a pharmacy visitor about allergy symptoms and even making a diagnosis (Fig. 5), pharmacists rely on their professional experience without any-standardized guidance on pharmaceutical counseling for symptoms – the most common reasons for going to a pharmacy for responsible self-medication.

There is international experience in the use of the pharmacists' (dispensers') protocols when selling industrially manufactured OTC drugs, in particular for the symptomatic treatment of allergies [24]. The protocols are designed to provide informational support for dispensing-medicinal products when patients or their representatives visit a pharmacy organization without a doctor's prescription. Protocols contain a list of standardized questions. The key points for the visitors contacting a pharmacy with allergy symptoms are:

1. Who has got a problem (a patient, family members, acquaintances – children or adults);
2. When the symptoms appeared and how long they have lasted;
3. What measures had been taken before contacting the pharmacy;
4. What medications have already been taken to relieve the conditions.

For the timely provision of medical care, it is vital to include a list of symptoms and life threatening conditions for allergies in the protocols. They are: general weakness, drop of blood pressure, suffocation, signs of laryngeal edema (a hoarse voice, a «barking» cough), swelling of the upper half of the face, bloody nasal discharge, neurological symptoms (anxiety, fear, increased physical activity), nausea, vomiting, abdominal pain. In such cases, a patient needs to seek for urgent medical attention. The protocols should also indicate the need to consult a doctor if allergy manifestations persist or recur sporadically when taking OTC drugs during the day, or new allergy symptoms appear during the treatment. The algorithms provide a list of questions regarding the presence of allergy symptoms: whether a diagnosis had been made by a doctor, whether there are the symptoms associated with possible contacts with allergens (pet hair, a plant blooming period, contact with chemicals, insect bites, etc.).

² Order of the Ministry of Health of the Russian Federation, August 31, 2016 No. 647n “On approval of the rules for good pharmacy practice of drugs for medical use” URL: http://www.consultant.ru/document/cons_doc_LAW_210618/

The protocols provide a list of OTC drugs for symptomatic treatment of allergies, recommendations regarding the dosage regimen of drugs, the conditions of use, the treatment period, storage rules, warnings about possible side effects, interactions, contraindications, as well as advice to eliminate contact with possible allergens, keep to hygienic measures and diet. Similar protocols for pharmaceutical consulting should be developed in each country, taking into account the legal regulation of the dispensing drugs procedure, the range of OTC drugs, the local specifics of allergic diseases, hygienic traditions and standards [13, 25, 12].

The survey of the pharmacies' visitors, helped to detect certain flaws in pharmaceutical counseling for allergy. It was found out that pharmaceutical specialists offered lots of unnecessary as well only expensive drugs, tried to diagnose, did not provide information about the need to consult a physician or the frequency and peculiarities of OTC drugs use. Despite the requirements of Order of the Ministry of Health of the Russian Federation No. 647n "On approval of the rules of good pharmacy practice for drugs for medical use", only 25% of pharmaceutical specialists drew the visitors' attention to possible drug and food interactions, and 17% paid attention to the peculiarities of OTC medicines storage at home.

The development of pharmaceutical consulting protocols for dispensing of non-prescription drugs, will help to improve the quality of service in pharmacy organizations as a component of the health care system in the Russian Federation.

CONCLUSION

The profile of an over-the-counter antiallergic drugs buyer in the pharmacies of Kazan was assessed in the following way: it is a woman aged 18–44 of a middle level income, having a family of 3–4 people, ready to spend from 101 to 500 rubles on the purchase of antiallergic drugs, buying anti-allergic drugs not for the first time. The main reasons to seek for treatment were skin rash, redness and itching, which had also been observed in the past. The allergic nature of the disease had already been confirmed by the doctor. For the average consumer of over-the-counter antiallergic drugs, the most important criteria for choosing a medicine were as follows: efficiency, safety, the doctor's recommendations and price. The medicines were purchased for the visitors themselves or their children. The buyers were satisfied with the range of antiallergic OTC drugs. Pharmacy specialists' advice were generally trusted. The visitors recognized pharmacists as health professionals but the respondents believed that a pharmacy specialist is interested in both profit from the sale of drugs and providing pharmaceutical assistance. The following disadvantages of pharmaceutical counseling when dispensing antiallergic OTC medicines were detected: improper diagnoses by a pharmaceutical specialist and lack of recommendations to consult a doctor, incomplete provision of information on the use, storage, and the possibility of interaction with other drugs and food.

The need for domestic standardized algorithm of pharmaceutical counseling for the visitors contacting a pharmacy with allergy symptoms in the framework of responsible self-medication, has been demonstrated.

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CONTRIBUTION OF AUTHORS

All authors contributed equally to the research work.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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