Research of ethics and deontological aspects in pharmacies

T. P. Zarichna, T. S. Brytanova, T. S. Raikova, T. A. Chornii
Zaporizhzhia State Medical University, Ukraine

The aim of the study was to study the ethical and deontological aspects related to the professional activities of pharmacists.

Materials and methods. To achieve the goal of the study, an analysis of scientific sources on ethical and deontological issues related to the professional activities of pharmacists (pharmacists) was carried out. During the research, the methods of information search, systematization, comparison, and generalization, as well as sociological research methods were used. The object of the study was the results of questionnaires and interviews of visitors and employees of pharmacy chains of KP "Prymula"; pharmacy chains that are part of the company "Apteka-Mahnolia"; Pharmacy ANC, Kopiika and pharmacies of the social project "Blahodìia"; pharmacy chains that are part of the company Med-service. Descriptive statistics methods were used to present the obtained data. To determine the significance of individual factors (Wij), obtained because of the questionnaire are listed to the corresponding specific weight of the component.

Results. The systematization of the following factors: which determine the quality of service; related to the purchase of drugs (medicines); which determine the priority of qualities of pharmacies; determining the relationship between pharmacist and a doctor. It was found that the most negative impact on pharmacy visitors, from the point of view of consumers, was the inattention of the pharmacist, his mistakes, irritability, rudeness, incompetence, as well as the high price of drugs, queues, and slow service. From the point of view of pharmacists, pharmacy visitors were most negatively affected by rudeness, incompetence of pharmacy employees, irritability, the price of drugs, the range of drugs, the presence of queues, and slow service. The results of the assessment of the parameters that determine the relationship between the pharmacist and the doctor showed that, in general, pharmacists maintain the authority of the doctor in the eyes of visitors and, along with the latter, carry out educational work among the population. However, a fifth of respondents assume the functions of a doctor, which is completely unacceptable. Using the technology of sociological survey, the analysis was carried out and, based on ranking, the leading rational and emotional factors that form loyalty for certain segments of the professional activity of pharmacies using ethical and deontological principles were identified.

Conclusions. The systematization of the following factors: which determine the quality of service; related to the purchase of drugs that cause dissatisfaction; which determine the dissatisfaction of visitors to pharmacies; which determine the priority of qualities of pharmacies; determining the relationship between pharmacist and doctor. Using the technology of sociological survey, the analysis was carried out and, based on ranking, the leading rational and emotional factors that form loyalty for certain segments of the professional activity of pharmacies using ethical and deontological principles were identified. It is established that the views on consumer dissatisfaction with visiting pharmacies differ insignificantly from the views of pharmacists. Pharmacist visitors are most negatively affected by the inattention and rudeness of the pharmacist, the high price of drugs, the presence of queues and slow service. It is established that, in general, pharmacists maintain the authority of the doctor in the eyes of visitors and, along with the latter, conduct educational work among the population.

Key words: market, consumer, client, loyalty.

Current issues in pharmacy and medicine: science and practice 2021; 14 (2), 259–264
Результаты. Систематизировали такие факторы: те, которые влияют на качество обслуживания; связанные с покупкой лекарственных средств (ЛС); определяющие приоритетные качества работы аптечных учреждений; определяющие взаимоотношения провизора и врача. Наиболее негативно на визиты в аптеку влияет непрофессионализм провизора, его грубость, некомпетентность, а также высокая цена ЛС, наличие очередей и медленное обслуживание. На аптеки профессионалов влияют невнимательность провизора, ошибки, раздражительность, грубость, некомпетентность, а также высокая цена ЛС, наличие очередей и медленное обслуживание. Заголовки провизора позитивно влияют авторитет провизора в глазах посетителей аптек в общек. Наиболее негативно на посетителей аптек влияют невнимательность провизора, его ошибки, раздражительность, грубость, некомпетентность, а также высокая цена ЛС, наличие очередей и медленное обслуживание. В целом провизоры поддерживают авторитет врачей в глазах посетителей аптек.

Выводы. Осуществлена систематизация факторов: те, которые влияют на качество обслуживания; связанные с покупкой лекарственных средств (ЛС); определяющие приоритетные качества работы аптечных учреждений; определяющие взаимоотношения провизора и врача. С использованием технологии социологического опроса проведен анализ и на основе ранжирования установлены ведущие профессиональные факторы, формирующие лояльность для отдельных сегментов профессиональной деятельности аптечных учреждений с использованием этико-деонтологических принципов.

Ключевые слова: рынок, потребитель, клиент, лояльность.

Актуальные вопросы фармацевтической и медицинской науки и практики. 2021. Т. 14, № 2(36). С. 259–264
The main task of the pharmacy is to provide highly qualified timely medical care to the population with a high culture of service. To perform this task, it is necessary to organize the work of the pharmacy in accordance with current standards, to ensure compliance with legislation governing the work of pharmacies, to strictly adhere to ethical and deontological principles [1–3,7–9].

In our country, the ethical standards of conduct of both medical and pharmaceutical workers coincide with legal requirements and are supported by laws and regulations. The main approaches to solving this problem are set out in the Fundamentals of the legislation of Ukraine on health care. Section X “Medical and pharmaceutical activities” contains articles that regulate the rights, duties, and responsibilities of medical and pharmaceutical workers in their professional activities [4].

The main ethical document is the Code of Ethics of pharmaceutical workers of Ukraine. The Code of Ethics for Pharmaceutical Workers of Ukraine is based on the Code of Pharmacists adopted in 1997 by the Council of the International Pharmaceutical Association and approved by the WHO. The International Code of Ethics and Recommendations of this Code contain 9 basic principles that govern the relationship between the pharmacist, the patient, the healthcare professional, and colleagues. The professional ethics of a pharmaceutical worker is based on the principles of legality, competence, objectivity and honesty, partnership and independence, confidentiality, and individual approach to each citizen. The Code aims to protect the dignity and human right to health care and sets out ethical standards of professional conduct and responsibility that should serve as a model guide for pharmaceutical chemists and pharmacists in their dealings with society in the context of market relations as the pharmaceutical profession grows and becomes more important. It should promote the formation of trust in the professional activities of pharmaceutical chemists and pharmacists, increase the status and image of these professions in society [5].

**Aim**

The aim of the study was to study the ethical and deontological aspects related to the professional activities of pharmacists.

**Materials and methods**

To achieve the goal of the study, an analysis of scientific sources on ethical and deontological issues related to the professional activities of pharmacists (pharmaceutical chemists). During the research the methods of information search, systematization, comparison, and generalization, as well as sociological research methods were used. The object of the study was the results of questionnaires and interviews of visitors and employees of pharmacy chains of KP “Prymyla”; pharmacy chains that are part of the company “Pharmacy-Mahnotilia”; Pharmacy ANC, Kopiika and pharmacies of the social project “Blahodii”, pharmacy chains that are part of the company Med-service.

Descriptive statistics methods were used to present the obtained data. To determine the significance of individual factors (Wij), obtained because of the questionnaire are listed to the corresponding specific weight of the component. To do this, the answers for each factor were summarized. The factor with the highest score was taken as “1”. The significance of other factors is calculated as the ratio of the sum of responses to the parameter that received the maximum score. To determine the rating of factors that shape consumer satisfaction with the work of pharmacists (pharmaceutical chemists) conducted additional studies to assess the significance of factors influencing consumer choice [6].

**Results**

The following factors were selected for this study:
- Consumer dissatisfaction with the quality of service (Table 1).
- Consumer dissatisfaction with the organization of pharmacies (Table 2).
- Dissatisfaction of consumers associated with the purchase of drugs (Table 3).
- Priority qualities of pharmacies (Table 4).
- Parameters that determine the relationship between the pharmacist and the doctor (Table 5).

**Discussion**

*Table 1* shows that the most negative effect on pharmacy visitors is the inattention of the pharmacist (Wij = 1.00), his...
Table 2. Parameters of the organization of work of drugstores causing dissatisfaction

| Factors                                      | Rank | Specific weight of components (Wij) | Factors                                      | Rank | Specific weight of components (Wij) |
|----------------------------------------------|------|-------------------------------------|----------------------------------------------|------|-------------------------------------|
| The presence of the queue                   | 1    | 1.00                                | Slow maintenance                            | 1    | 1.00                                |
| Obsessive advertising                       | 2    | 0.48                                | The presence of the queue                   | 2    | 0.94                                |
| Slow maintenance                            | 3    | 0.44                                | No money exchange                           | 3    | 0.52                                |
| No money exchange                           | 4    | 0.24                                | Obsessive advertising                      | 4    | 0.32                                |
| Inconvenient location of the product in the window | 5   | 0.12                                | Lack of space for rest                      | 5    | 0.13                                |
| Small area of the trading hall              | 6    | 0.08                                | Small area of the trading hall             | 6    | 0.10                                |
| Unsuccessful design of the trading hall     | 6    | 0.08                                | Inconvenient location of the product in the window | 6   | 0.10                                |
| Lack of space for rest                      | 7    | 0.04                                | Unsuccessful design of the trading hall     | 7    | 0.06                                |

Table 3. Options related to the purchase of drugs that cause dissatisfaction

| Factors                                      | Rank | Specific weight of components (Wij) | Factors                                      | Rank | Specific weight of components (Wij) |
|----------------------------------------------|------|-------------------------------------|----------------------------------------------|------|-------------------------------------|
| The price of drugs                           | 1    | 1.00                                | The price of drugs                           | 1    | 1.00                                |
| Assortment of drugs                          | 2    | 0.28                                | Assortment of drugs                          | 2    | 0.40                                |
| Low quality of drugs                         | 3    | 0.22                                | Impossibility to return released drugs       | 3    | 0.30                                |
| Price mismatch in the shop window and in the check | 4  | 0.09                                | Price mismatch in the shop window and in the check | 4  | 0.23                                |
| Impossibility to return released drugs       | 5    | 0.06                                | Unsatisfactory quality of drugs             | 5    | 0.13                                |
| Inconvenient dosage form of drugs            | 5    | 0.06                                | Inconvenient dosage form of drugs            | 6    | 0.08                                |
| Inconvenient dosing of drugs                 | 5    | 0.06                                | Inconvenient dosing of drugs                 | 7    | 0.00                                |

Table 4. Parameters that characterize the quality of pharmacy operations

| Factors                                      | Rank | Specific weight of components (Wij) |
|----------------------------------------------|------|-------------------------------------|
| Service culture                              | 1    | 1.00                                |
| The atmosphere of the trading hall           | 2    | 0.98                                |
| Assortment of drugs                          | 3    | 0.97                                |
| Highly qualified staff                       | 4    | 0.96                                |
| Overall satisfaction with visiting the pharmacy | 6  | 0.94                                |
| Location of the pharmacy                     | 7    | 0.93                                |
| The location of the drug in the window       | 8    | 0.91                                |
| Affordable price                            | 9    | 0.85                                |
| Availability of loyalty programs             | 10   | 0.84                                |

Table 5. The results of the evaluation of the parameters that determine the relationship between the pharmacist and the doctor

| Factors                                                | Positive answer, % | Negative answer, % |
|--------------------------------------------------------|--------------------|--------------------|
| Pharmacist's support of the doctor's authority in the eyes of visitors | 93.3               | 6.7                |
| Performing the functions of a doctor by a pharmacist   | 20.0               | 80.0               |
| Pharmacist's remarks to the doctor in the presence of visitors | 13.3              | 86.7               |
| Consultation of doctors on the selection and appointment of drugs | 35.6              | 64.4               |
| Collaboration with physicians to determine pharmacological standards for the treatment of formulary lists | 13.3              | 86.7               |
| Conducting educational work among the population on the use of over-the-counter drugs | 44.4              | 55.6               |
mistakes (Wij = 0.92), irritability (Wij = 0.50), rudeness (Wij = 0.42), incompetence (Wij = 0.30). The appearance of the pharmacist does not matter to visitors.

From the point of view of pharmacists, pharmaceutical chemists are most negatively affected by rudeness (Wij = 1.00), incompetence of pharmacy employees (Wij = 0.85), irritability (Wij = 0.78). The least attention is paid to the appearance of the pharmacist (pharmacist) (Wij = 0.22), his mistakes (Wij = 0.44).

The results of the factor assessment of the pharmacy organization that negatively affect the visitors of the pharmacy showed that the visitors of the pharmacies are most annoyed by the presence of queues (Wij = 1.00), intrusive advertising (Wij = 0.48), slow service (Wij = 0.44). There is almost no attention to the lack of a place to rest (Wij = 0.04).

Pharmacists (pharmaceutical chemists) believe that in the organization of the pharmacy consumers are most annoyed by: slow service (Wij = 1.00), queues (Wij = 0.94), lack of exchange (Wij = 0.52). Unsuccessful design of the trading hall (Wij = 0.06), inconvenient location of goods in the shop window (Wij = 0.10), small area of the trade hall (Wij = 0.10), lack of space for rest (Wij = 0.13) have value (Table 2).

Analysis of the reasons related to the purchase of drugs that cause dissatisfaction showed that the most negative impact on visitors to pharmacies is the high price (Wij = 1.00), insufficient range (Wij = 0.28), low quality (Wij = 0.22).

Practically they do not pay attention to the impossibility of returning the released drugs in accordance with the law, inconvenient dosage forms, inconvenient dosage of drugs (Wij = 0.06).

The assessment of the views of pharmacists (pharmacetical chemists) showed that the high price (Wij = 1.00) and insufficient range of medicines (Wij = 0.40), the impossibility of returning the goods in accordance with the law (Wij = 0.30) irritates pharmacy visitors and causes their dissatisfaction (Table 3).

Next, the priority qualities of the work of pharmacies were identified (Table 4). It was found that the most important criteria for pharmacy visitors are: service culture (Wij = 1.00), the atmosphere of the trading hall (Wij = 0.98), the range of drugs (Wij = 0.97), highly qualified staff (Wij = 0.96). The presence of loyalty programs (Wij = 0.84) is almost irrelevant.

An important element of pharmaceutical ethics and deontology are the moral rules governing the relationship between pharmacists and physicians, which must be based on the principles of humanism and a high awareness of their social duty.

The main thing in the relationship between medical and pharmaceutical workers is a common goal – to preserve the health and well-being of patients. At the same time the doctor bears the load associated with the diagnosis and prescription of drugs. Therefore, the doctor and the pharmacist should work as colleagues, respect each other’s experience and knowledge.

The results of the assessment of the parameters that determine the relationship between the pharmacist and the doctor showed that, in general, pharmacists maintain the authority of the doctor in the eyes of visitors and, along with the latter, carry out educational work among the population. However, one-fifth of respondents assume the functions of a doctor, which is completely unacceptable. In addition, pharmacists make remarks to the doctor in the presence of the patient, which does not meet ethical and deontological standards. It should be noted that joint work with physicians to determine pharmacological standards for the treatment of formulary lists is not active enough (Table 5).

Conclusions

1. The systematization of the main factors: which determine the quality of service; related to the purchase of drugs that cause dissatisfaction; which determine the dissatisfaction of visitors to pharmacies; which determine the priority qualities of pharmacies; determining the relationship between a pharmacist and a doctor.

2. Using the technology of sociological survey, the analysis was conducted and, based on ranking, the leading rational and emotional factors that form loyalty for certain segments of the professional activity of pharmacies using ethical and deontological principles were identified.

3. It is established that the views on consumer dissatisfaction with visiting pharmacies differ insignificantly from the views of pharmacists. Pharmacy visitors are most negatively affected by the pharmacist’s inattention and rudeness, the high price of drugs, the presence of queues, and slow service.

4. It is established that, in general, pharmacists maintain the authority of the doctor in the eyes of visitors and, along with the latter, conduct educational work among the population.

Conflicts of interest: authors have no conflict of interest to declare.

Information about author:
Zarichna T. P., PhD, Associate Professor of the Department of Management and Pharmacy Economics, Zaporizhzhia State Medical University, Ukraine.
ORCID ID: 0000-0002-3711-4453

Brytanova T. S., PhD, Teaching Assistant of the Department of Management and Pharmacy Economics, Zaporizhzhia State Medical University, Ukraine.
ORCID ID: 0000-0003-1805-4552

Raikova T. S., PhD, Associate Professor of the Department of Clinical Pharmacy, Pharmacotherapy, Pharmacognosy and Pharmaceutical Chemistry, Zaporizhzhia State Medical University, Ukraine.
ORCID ID: 0000-0001-7541-4003

Chomi T. A., pharmacist-inter, Zaporizhzhia State Medical University, Ukraine.

Vідомості про авторів:
Зарична Т. П., канд. фарм. наук, доцент каф. управління та економіки фармації, Запорізький державний медичний університет, Україна.
Британова Т. С., канд. фарм. наук, асистент каф. управління та економіки фармації, Запорізький державний медичний університет, Україна.
Раїкова Т. С., PhD, доцент каф. управління та економіки фармації, Запорізький державний медичний університет, Україна.
Райкова Т. С., канд. фарм. наук, доцент каф. клінічної фармації, фармакотерапії, фармаакогнозії та фармацевтичної хімії, Запорізький державний медичний університет, Україна.

Сведения об авторах:

Заричная Т. П., канд. фарм. наук, доцент каф. управління і економіки фармації, Запорожский государственный медицинский университет, Україна.

Британова Т. С., канд. фарм. наук, ассистент каф. управління і економіки фармації, Запорожский государственный медицинский университет, Україна.

Райкова Т. С., канд. фарм. наук, доцент каф. клінічної фармації, фармакотерапії, фармаакогнозії і УЕФ ФПО, Запорожский государственный медицинский университет, Україна.

Чорний Т. А., провізор-інтерн, Запорожский государственный медицинский университет, Україна.

References

[1] Malyi, V. V., Safiulina, Z. R., Kobets, M. M., & Samborskyi, O. S. (2017). Etyka ta deontolohiia u farmatsii [Ethics and deontology in pharmacy]. Kharkiv: NFaU: Zoloti storinki. [in Ukrainian].

[2] Kotvitska, A. A., Surikova, I. O., & Gavrysh, N. B. (2015). Doslidzhennia vprovadzhennia etychnoho kodeksu farmatsiv Ukrainy [The study of introduction of the ethics code of pharmacists of Ukraine in to the practical activity]. Sotsialna farmatsiia v okhoroni zdorovia, 1(1), 45-52. [in Ukrainian].

[3] Tkachenko, N. O. (2018). Vprovadzhennia kontseptsi sotsialnoi vidpovidalnosti v diialnist farmatsevtychnykh pratsivnykh [Introduction of the concept of social responsibility in the activity of pharmaceutical organizations]. Current issues in pharmacy and medicine: science and practice, 1(2), 238-243. [in Ukrainian]. https://doi.org/10.14739/2409-2393.2018.2.133498

[4] Verkhovna Rada of Ukraine. (1992, November 19). Osnovy zakonodavstva Ukrainy pro okhoronu zdorovia. Zakon Ukrainy vid 19.11.1992 No. 2801-XII [Fundamentals of the Legislation of Ukraine on Health Care (No. 2801-XII)]. https://zakon.rada.gov.ua/laws/show/2801-12#Text

[5] Ministry of Health of Ukraine. (2010). Etychnyi kodeks farma­tsevtychnykh pratsivnykh [Code of Ethics for Pharmaceutical Workers of Ukraine]. [in Ukrainian]. http://nuph.edu.ua/etchnyi-kodeks-farmacevtichnih-prac/

[6] Larka, M. I., Miroshnyk, M. V., Anokhin, V. A., & Olinyk, I. S. (2013). Suchasni tendentsii ta problemy rozvytku prohram loialnosti na spozhyvachomu rynku [Current trends and problems in the development of loyalty programs in the consumer market]. Visnyk Natsionalnoho tekhnichnoho universytetu “Kharkivskyi politekhnichnyi instytut”, (66), 129-137. [in Ukrainian].

[7] Molodozhonova, O. O., & Bushueva, I. V. (2013). Perekhodov formuvalnia model upravlinnia loialnistiu u farmatsiiv pri pryjmystv [Preconditions of forming of loyalty management model in pharmaceutical institution]. Zaporozhye medical journal, (2), 98-100. [in Ukrainian].

[8] Esmalipour, R., & Parsa, M. (2017). The Conflict of Interest in Pharmacy Practice, Medical Ethics and History of Medicine, 10(1), 1-17. http://jmme.tums.ac.ir/article-1-5885-en.html

[9] Hotsulia, A. S., Postol, N. A., Kaplaushenko, A. H., Parchenko, V. V., & Shchvets, V. M. (2010). Vykladannia etyky ta deontolohi u farmatsii [Teaching ethics and deontology in pharmacy]. Aktualni problemy suchasnoi medytsyny – Urgent Problems of Modern Medicine, (4), 175-177. [in Ukrainian].