PHARMACEUTICAL CARE AND EFFECTIVE COMMUNICATION WITH CUSTOMERS

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Abstract. Nowadays, the provision of pharmaceutical care and effective communication with customers are being discussed more often. A pharmacist is a specialist in his field with specific knowledge in the field of pharmacy. Therefore, the trust from the customer’s side and a kind, informative, and professional approach from the pharmacist’s side are very important in this case. Objective: To clarify what knowledge do the pharmacy customers have about pharmaceutical care and how satisfied they are with the pharmaceutical care services. The research was conducted using a quantitative survey, the statistical analysis of the obtained data was carried out using data processing software Microsoft Office Excel 2010, 267 respondents from various regions of Latvia were surveyed. Only 37% of respondents understand meaning of pharmaceutical care. This means that most of the customers are unaware of the duties and responsibilities of a pharmacist. Most of the respondents associate pharmaceutical care with medication dispense, consultation and good customer service. It would be necessary to inform society about pharmaceutical care and its importance in healthcare. Conclusions: The hypothesis put forward in the thesis confirms that society needs to be informed about pharmaceutical care, and pharmacist duties and responsibilities.

Keywords: duties and responsibilities of a pharmacist, healthcare, pharmaceutical care, pharmacist, pharmacy.

Introduction

The pharmaceutical industry has changed considerably in the last years. Roles of pharmacists constantly continue to develop within the constantly changing environment of healthcare. Occupation of a pharmacist faces new possibilities and challenges; therefore, it is necessary to focus on new ways how the occupation of a pharmacist can create added value in customer care. Reforms
in healthcare industry have accelerated these changes and have created a favourable environment for new, innovative practices and roles of pharmacy that have a notable added value in ensuring the management of medical treatment. Pharmacists nowadays have given attention to the importance of interaction between the pharmacist and the patient. It is important for a pharmacist to promote public health by preventing diseases, lengthening lifespan, and facilitating the state of health of the entire population. By establishing good standards of healthcare practice, the best pharmaceutical care would be ensured for patients (Blouin, Michael & Adams, 2017). Evidence increases about the influence of pharmacists on the clinical and economical results, and this indicates in general about the improvement of therapeutic results (Avalere Health, 2014).

The duties of a pharmacist are to facilitate the improvement of health and to help patients that are having health problems gain the greatest possible benefit from using medicines (Allemann et al., 2014). The philosophy of this mission is formed from six fundamental principles in accordance with the World Health Organisation (2011) and the International Pharmaceutical Federation (2018):

1) the pharmacist is easily accessible to patients both by a previous agreement and without it,
2) the pharmacist discovers and solves health-related problems within his competence,
3) the pharmacist provides health promoting services,
4) the pharmacist facilitates the use efficiency of medicines,
5) the pharmacist prevents possible damage that would be caused by medicines,
6) the pharmacist facilitates the responsible use of limited healthcare resources.

According to the Pharmaceutical Law of the Republic of Latvia - pharmaceutical care is a component of healthcare, which is carried out by a pharmacist within his or her competence by providing pharmaco-therapeutic consultations, information concerning medicinal products and their use. Within such care is also included supervision of the use of medicinal products by permanent customers, distribution of medicinal products and other healthcare products, prophylaxis and promotion products, preparation of medicinal products, manufacturing of medicinal products, promotion of health and disease prophylaxis on the basis of newest scientific achievements and by taking into account the interests of the customers, as well as ensuring customer data protection within the scope of his or her competence (Pharmacy Law, 1997). In 2014 the Latvian Pharmacist Association developed the project “Standards and Quality Indicators of Pharmaceutical Care” that is intended for improving the operation of pharmacies and the pharmaceutical care (Latvian Pharmacist Association, 2014).
The efficiency of a patient’s therapy depends on the patient’s satisfaction with the healthcare (Xesfingi & Vozikis, 2016). There are few studies (carried out in pharmacies) about the patient’s satisfaction with pharmaceutical care (in comparison with the amount of studies about care in hospital environment) (Bratkowska, Religioni, Krysiński, & Merks, 2020). Patient-centred care that could be carried out also in pharmacies is topical (Wolters, van Hulten, Blom, & Bouvy, 2017). Therefore, it is necessary to evaluate the patients’ satisfaction with services provided in pharmacies. This information could help improve pharmaceutical care standards and develop pharmacy student curriculum accordingly.

Goal of the research: To determine what knowledge do the pharmacy visitors have about pharmaceutical care, what information do they receive when making purchases in pharmacies, and how satisfied they are with pharmaceutical care services.

Materials and Methods

The research was conducted in Latvia. Quantitative research method was used in the research. The questionnaire was carried out from 27 March 2020 until 2 April 2020. The questionnaire was drawn up using Likert scale and using answer format of 1-5, where the smallest and largest number denotes two contrary extremes, for example, 1 - “totally unimportant” and 5 - “very important”. Answers in the questionnaire were drawn up in order to clarify the opinions of respondents about the provision of pharmaceutical care in pharmacies.

In the beginning of the questionnaire the sex, age, place of residence, and the place of shopping was enquired. Next question was to identify the factors that influence the selection of a pharmacy. Then followed questions about the pharmacy visitor’s knowledge about pharmaceutical care and the main duties of a pharmacist. Next section is about the evaluation of the quality of pharmacist’s consultations. Then followed questions about the contents of consultations provided by the pharmacist and if information that is defined in the standards of the Latvian Pharmacist Association is provided. In the end it was enquired how the patients evaluate the role of a pharmacist in the provision of healthcare, and the question No. 7 was the overall satisfaction of patients with the services provided by the pharmacist.

The questionnaire was distributed to the population of Latvia via e-mail and social media. 267 responses were acquired, which then were analysed, and their results were summarized using various charts. Sample size 267 respondents provide a 3% margin of error to estimate the mean value of continuous data at the alpha level of 0.05, which is generally accepted in educational and social research.
The results of the research conducted in Latvia were analysed, and the results were compared with similar researches—including the results of a research carried out in Jordan, because it had very similar questionnaire structure. Some studies were excluded from comparison due to difference in healthcare systems.

Results

The questionnaire of the research in Latvia was filled out by 222 women and 45 men, which constitutes 83.1% women and 16.9% men.

Distribution of respondents by age was determined. The largest percentage share in Latvia consisted of 30-39 year old respondents (constituted 31%), next largest share was 40-49 year olds (27%), followed by 18-29 year olds (22%). Therefore, the largest part of the respondents (80%) was 18-49 year olds. The smallest percentage part of respondents in Latvia was aged 60 and more years (18 respondents, which constitutes 7%). This could mean that mostly persons of newer generations are involved in filling out questionnaires in social media.

Review of the gender and age distribution in the Latvia research indicates the following: the largest number of female respondents were in the age group 30-39 (which was 71 women) and 40-49 (62 women accordingly); however for men the distribution was more (in the age group of 18-49 years). However, when looking at the age group of above 70 years - there were only 2 female respondents and 5 male respondents; yet in the age group of 60-69 year olds there were 10 females yet only 1 male.

Respondent’s places of residence and places of shopping

The distribution of respondents by place of residence was the following: 45% were from Riga and the remaining 55% were from other cities and rural regions. Opinions of respondents from various regions were obtained. It is positive that the capital city Riga with its opinions is not dominating. In the Jordan questionnaire 71% of respondents were from the central city and only 29% lived in rural regions (Mukattash et al., 2018).

Data indicates that people do not always shop where they live. For example, the respondents living in the historical region of Zemgale are shopping both in cities of Zemgale (19) and in pharmacies of rural regions (7), and also in Riga (6). Respondents living in Vidzeme are also shopping both in their cities, in pharmacies of rural regions, and in Riga. This could be explained by the fact that many respondents are probably working in Riga or are often visiting it. For instance - the respondents living in Latgale mainly are shopping also in other cities (30), in rural regions (13), and only 1 respondent is shopping in Riga. The same is true in Kurzeme, where only 1 respondent was shopping in Riga. Whereas from the respondents living in Riga (121) only 6 were shopping in rural regions.
Pharmacy location might affect customers' satisfaction with provided care (Malewski, Ream & Gaither, 2015).

Figure 1 Respondent’s Place of Residence and Places of Shopping

Factors that influence the selection of a pharmacy
Pictures were used to describe the selection of a pharmacy, which indicates the average value of respondent’s answers, which constitutes 68% of all respondents. Standard deviation indicates the dispersion of answers. The larger is the standard deviation the more different were the respondents’ answers. The smaller is the standard deviation the more uniform were the respondents’ answers.

Figure 2 Factors that Influence the Selection of a Pharmacy
Factors that influence the patients’ selection of a pharmacy are shown in the Figure 2. In the first place respondents have selected the quality of consultations and the service in a pharmacy (average value is 4.3 and standard deviation is 0.98). In the second place the respondents have selected the presence of knowledgeable and reliable pharmacists in a pharmacy (average value 4.17 and standard deviation 1.04). Importance of a convenient location of the pharmacy for the respondents is in the third place (average value 3.96 and standard deviation 0.97). Patients frequently select pharmacies that are located in outpatient hospitals or near them when buying prescription medicine. Pharmacies that are located near the patients’ place of residence are also chosen. Many customers also visit those pharmacies that are located in the premises of shopping centres. In the fourth place of importance for the patients are good prices and various discounts. Here the average value is 3.94 and the standard deviation is 1.07. This standard deviation indicates that answers are more dispersed than in the previously examined cases, therefore the respondents’ opinions were more varied. The choice variety of medicines is in the fifth place of importance for patients (average value 3.63 and standard deviation 1.06). Exterior and interior design of a pharmacy is in the sixth place (average value 3.02 and standard deviation 1.12). Such value of the standard deviation indicates the largest dispersion of answers. Consequently, there are customers to whom this factor is important, and there are many of those who regard the design of a pharmacy as unimportant. In comparison with a research carried out in Poland: the main criteria when selecting a pharmacy was location, then followed by professional care of high quality, price, and medicine discounts. However, for the customers in Great Britain more important was the quality of services, then followed by the location of the pharmacy. The following were named as essential factors: good advices from a pharmacist, a separate consultation room for in-depth health discussions. Pharmaceutical care of good quality facilitated the return of patients to the pharmacy. 30 % of customers in Poland return to one pharmacy, and 61 % of customers in Great Britain use the services of one pharmacy (Merks, Kaźmierczak, Olszew ska, & Koltowska-Häggström, 2014). Also, in another research in Poland the patient’s selection of pharmacy was analysed, and as the most essential were named: location, price, wide offer of medicines, and service of good quality. For patients in Slovakia essential were also: location of a pharmacy, good previous experience, qualified and friendly professionals, convenient working hours, availability of additional services, for example, blood pressure and cholesterol level measurements, etc. (Mináriková, Malovecká, Lehocká, Snopková, & Foltán, 2016). In Latvia and also in Great Britain, Poland, and Slovakia the quality of consultations and service takes one of the first places.
Knowledge of pharmacy customers about pharmaceutical care and the main duties of a pharmacist

The knowledge of respondents about the meaning of pharmaceutical care was enquired within the research. Only 10% of respondents indicated their knowledge as very good, 27% indicated knowledge as good, 44% indicated knowledge as average, 15% indicated knowledge as poor, and 4% indicated knowledge as very poor. This makes us conclude that only 37% of respondents know what pharmaceutical care means, but the remaining respondents either know something or know nothing. Therefore, it is not yet obvious for the customers what a pharmacist should do when providing services to customers. The fact that 44% of respondents indicate their knowledge as average shows that customers do not yet fully know what are the duties of a pharmacist and what information they should receive from a pharmacist. This indicates about the necessity to inform the society more about pharmaceutical care, purpose of the pharmacist, and his specific professional knowledge that should be provided to each visitor by a pharmacist working in pharmacies.

It can be observed in the image that the respondents point out “Informing the patient about medicines and dispensing of medicines” as the most important duty of a pharmacist (average value 4.42 and standard deviation 0.73). In this case most of the respondents notice the characterizing activities of their pharmacist. Respondents’ opinion that a duty of a pharmacist is “the sale of medicines” takes the second place, which indicates that the patients have mainly encountered this type of pharmacist’s activities (average value 3.87 and standard deviation 1.06). Respondents have noted “Consulting customers about treatment, illness, and health” as the third option (average value 3.56 and standard deviation 1.04). The patients have encountered a more comprehensive pharmacist’s consultation in this option.

![Figure 3 Main Duties of a Pharmacist According to the Patients’ Opinions](image)
The research data indicates that most people don’t clearly know what pharmaceutical care means. For most of the customers this is associated with the dispensing of medicines and explaining the using of medicines. Because when inspecting answers to questions regarding “Has the pharmacist asked additional question or has provided additional information?” part of the answers was “rarely” and “very rarely” or “never”.

In Jordan 55% of respondents didn’t have knowledge about pharmaceutical care (Mukattash et al., 2018), whereas in Latvia only 19% of respondents thought that their knowledge about pharmaceutical care was “poor” or “very poor”, and knowledge as “average” was indicated by 43%, and 37% indicated that their knowledge about pharmaceutical care is “very good” and “good”. Also in the research that was conducted in Great Britain as the main care duties of rural pharmacies were named the following: dispensing of medicines (86%) and recurrent dispensing of medicines (73%); approximately one fifth of respondents went to a pharmacy in order to treat small health disorders, infections, small injuries, gastric disorders, and in the case of allergies. More comprehensive services, for example, medicine use review services were provided very rarely. Youth was better informed about the essence of pharmaceutical care (Merks, Świeczkowski, & Jaguszewski, 2016).

By comparing these researches, it can be observed that people in Latvia understand this concept better, however it is necessary to continue the discourse about the essence of pharmaceutical care and what the customers should receive when visiting pharmacies.

**Evaluation of the quality of a pharmacist’s consultations**

After analysing the respondent’s satisfaction with the quality of pharmacist’s consultations, it can be concluded that it is generally satisfactory because only 3% of respondents selected answers “dissatisfied” or “more dissatisfied than satisfied”. Of course, also the answer “average” (15% from all of the answers) makes us think that the customer is not completely satisfied, which could indicate that the experiences from consultations provided by a pharmacist are varied. It is also possible that the criteria “quality of pharmacist’s consultations” can be different for each customer.

As we can observe in the figure 4, the patients are mostly satisfied with the current quality of pharmacist’s consultations (average value 4.27 and standard deviation 0.80). The dispersion of data is also small. When considering the time dedicated by a pharmacist for patients during a pharmacy visit, the respondents have evaluated the duration of their pharmacist’s consultations with average value of 4.25 and standard deviation of 0.93. Therefore, the pharmacists mainly dedicate sufficient amount of time for their patients in order to provide the necessary information. When evaluating also “the time of individual attention given to a
customer” the respondents have evaluated it mainly as corresponding to the wishes of patients (average value 4.21 and standard deviation 0.92).

![Figure 4 Evaluation of the Quality of a Pharmacist’s Consultations](image)

Patients in the Slovakia pharmacy research were overall satisfied with the provided care. Highest evaluation was given to good communication from employees and the availability of consultations; and the worst evaluation was given to therapy management. Patients were not satisfied with the frequency of pharmacists’ enquiry regarding the effectiveness of medicines and if the medicines even work at all (for previously used medicines and illnesses) and also indicated the lack of privacy in the pharmacy (Mináriková, Malovecká, Lehocká, Snopková, & Foltán, 2016).

Patients in the research that was conducted in Poland were overall satisfied with the work of pharmacists; somewhat higher assessment was given to employees of independent pharmacies. It was observed that the patients were least satisfied with questions about the general state of health before the dispensing of medicines and with the information received about the use of medicines. Multiple respondents indicated that they would like to receive consultations in the pharmacy about health problems, healthy nutrition, possibilities to decrease addictions, and to receive additional services - measuring of blood pressure and cholesterol level. This could indicate that the patients have a desire to receive a more comprehensive pharmaceutical care than the one that is currently provided to them (Bratkowska, Religioni, Krysiński, & Merks, 2020).
Contents of Consultations Provided by a Pharmacist

Respondents answered the question “Does the pharmacist provides the patient with additional information on how to improve the state of health” with a much lower evaluation (average value 2.19 and standard deviation 1.11). This indicates that such information is provided less frequently, and a larger dispersion is observed in the provided answers. Then followed the question “Does the pharmacist inform about the possible adverse effects that can be anticipated during the use of medicines?”. The respondents replied with answers the average value of which was 2.15 and the standard deviation was 1.18. This indicates that such information is provided in fewer cases and the dispersion in answers is even bigger. We can judge according to this that there are pharmacists that provide such information to patients, and there are also plenty of pharmacists that don’t provide such information. Respondents answered the question “Does the pharmacist ask the patient about the use of other medicines and tells about interaction with other medication and food supplements?” with answers the average value of which was 2.03 and standard deviation was 1.12. This information is very important in cases when the pharmacist suggests over-the-counter drugs for preventing some symptoms. By gathering such information, a specialist can verify if the recommended product is compatible with the existing medication therapy of the patient. The pharmacist must ascertain that the patient properly stores medicines at home. This can affect the further efficiency of medicines. The respondents’ evaluation of this question was also low. Average value was 1.93 and standard deviation was 1.05. Question regarding “Do the patients visit large pharmacy
companies or small individual pharmacies” was not examined in the research that was conducted in Latvia, however the large dispersion of questions can be understood by observing the comparison of research results with other researches, because the quality and contents of patient consultations differs in various pharmacies also in our country.

Chain pharmacies and independent pharmacies were compared in the research, and it was observed that individual pharmacies provide better consultations (according to content). However, it was concluded that information about illnesses, concomitant diseases, and other medicines used is rarely asked in pharmacies before dispensing over-the-counter medicines, and also the side effects are rarely reported (Bratkowska, Religioni, Krysiński, & Merks, 2020).

**Role of a pharmacist in the provision of healthcare**

Thoughts of patients regarding the role of a pharmacist in the provision of healthcare were also enquired. The respondents answered the question “Does the pharmacist have a large role in this or not so large” with answers the average value of which was 4.18 and the standard deviation was 0.81. Conversely there were many respondents that valued the pharmacist’s kind and attentive attitude to them and the pharmacists’ interest in helping the patients. Here the average value was 3.99 and the standard deviation was 0.85. Psychosocial aspects are important than medication information for some pharmacy costumers (Patrícia Antunes, Gomes, & Cavaco, 2015). Holistic approach and medicine information received from pharmacists, as well as their empathic attitude improved medication adherence and patient satisfaction with medical care (Bourdin et al., 2020). This indicates that the patients evaluate pharmacists relatively high as healthcare professionals.

**Patient’s satisfaction with services provided by the pharmacist**

In conclusion the patients from Latvia were asked if they are overall satisfied with services provided by the pharmacist. Respondents’ answers to this question were evaluated with the average value of 3.99 and the standard deviation of 0.85.

When comparing the data about the respondents’ satisfaction with services provided by the pharmacist, it can be concluded that the percentage of respondents in Latvia that are satisfied and very satisfied is 84 %, but in Jordan the percentage of respondents that were satisfied with services provided by the pharmacist was 68 % of respondents (Mukattash et al. 2018). This indicates that most of the respondents in Latvia are satisfied with the way how pharmacists provide services. This lets us conclude that a pharmacist in Latvia provides the customer in accordance with what the customer anticipates to receive from the pharmacist; however, the quality of pharmacist’s consultations could be higher (when evaluating the average value). Review of pharmaceutical care studies notes that
overall patients are satisfied with care provided by pharmacy, especially with OCT medication and minor ailment consultations. On the other hand it identified some areas for improvement like chronic disease patient care, empathic and effective communication, patient centred care, providing more information on medication adherence promotion and healthy lifestyle (Melton & Lai, 2017). Considering the results of this research, the quality level of pharmacy consultations could be improved. Therefore, pharmacy curriculum revision is necessary, promoting patient centered care and developing practical skills needed to give patients high-level pharmaceutical care.

**Conclusions**

1. According to the summarized data it can be concluded that the knowledge of the population about the pharmaceutical care is insufficient.
2. Most of the customers associate pharmaceutical care with the dispensing of medicines, explaining the use of medicines, and providing services politely.
3. Pharmacists insufficiently communicate with patients and insufficiently inform them about interaction of medicines with other medication and foodstuffs, about side effects of medicines, and about storage of medicines; and they provide little valuable advice regarding how to improve the state of health.
4. The quality of pharmaceutical care takes one of the first places of importance when comparing different researches from all of the inspected countries.

**References**


