



## Research Article

### THE POTENTIALS OF PHARMACISTS TO PROMOTE RESPONSIBLE AND EFFICIENT SELF-TREATMENT A SWOT ANALYSIS

\*Anna Todorova

Department of Pharmaceutical Sciences and Pharmaceutical Management, Faculty of Pharmacy, Medical University of Varna, Bulgaria

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The growing use of over-the-counter (OTC) drugs and the promotion of patient self-care are associated with a number of socio-economic factors such as patients' lifestyle, their easy access to medicines, the favourable conditions for patient self-treatment, patients' growing health awareness, as well as the wide availability of various medicinal products. We conducted a SWOT-analysis to identify the potential strengths, weaknesses, opportunities and threats that pharmacists face in their efforts to promote rational use of OTC products and safe and efficient self-medication. Adequate self-medication can be convenient and beneficial for patients and national health systems alike. On the other hand, treatment with OTC products often poses higher risks to patients and has a negative impact on the relationship between patients and their physicians and pharmacists. Pharmacists have to meet ever increasing expectations since they are the most accessible healthcare professionals responsible for maintaining patients' well-being when self-medicating.

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## INTRODUCTION

There is an expansion in the distribution of OTC products worldwide and Bulgaria makes no exception. Despite the global financial crisis, the share of OTC sales in the pharmaceutical market is constantly surging ahead. Studying the various aspects of OTC drug usage is essential for healthcare professionals and enables them to maintain a high level of performance, thus minimizing the risks and facilitating positive therapeutic and economic results in the health systems. OTC products are manufactured, distributed and sold on patients' own initiative and responsibility, i.e. patients seeking self-medication do not need to consult the doctor.

The following essential characteristics of OTC drugs make them suitable for self-treatment (Ordinance №3, 2008):

- The OTC active ingredient per usual dosage unit has low toxicity;
- OTC drug use within the recommended period as described in the drug leaflet (usually 3 to 5 days) does not unduly delay diagnosis and consultation with a medical specialist;
- OTC drugs have no adverse drug reactions (ADRS) and do not require medical supervision during self-treatment;

\*Corresponding author: Anna Todorova

Department of Pharmaceutical Sciences and Pharmaceutical Management, Faculty of Pharmacy, Medical University of Varna, Bulgaria

- There is no significant risk of OTC drug addiction or abuse;
- OTC drugs do not interact with commonly administered medications and/or foods to cause severe adverse reactions;

The information provided on every medicine pack should meet certain requirements. The information on the pack and in the patient information leaflet of each OTC drug should be exhaustive and easily comprehensible. The secondary packaging and the primary packaging (when secondary one non-existent) should provide instructions for the use of the medicinal product such as indications, dosage, contraindications and special warnings, or advise the patient to read the patient information leaflet (Ordinance No.38, 2007). All contraindications, risks and possible interactions should be described sufficiently clear and understandable. The information should include the recommended treatment period and the conditions that necessitate physician's intervention. It is pharmacist's responsibility when dispensing OTC drugs to obtain the relevant information, to analyse patient's condition, and to provide patient counselling on safe self-medication (Danchev *et al.*, 2011):

- to make sure patient's self-diagnosis is correct
- to assess whether patient's condition can be subject to self-treatment and recommend the appropriate OTC drug
- to identify any potential contraindications.

The role of the pharmacist as the most accessible healthcare professional is an essential part of the safe and efficient self-treatment. The World Health Organization (WHO) defines self-treatment as a factor that facilitates health promotion and as one of the components of the national health strategies. According to WHO, patients feel more satisfied when they are responsibly engaged in managing their health and well-being. The concept of collaborative care comprises patient's proactive participation based on patient's experience and healthcare professionals' expertise (Sanz, 2000). Today, the use of OTC drugs is commonly recognized as an essential part of healthcare, which corresponds to the growing desire of everyone to make responsible decisions concerning his or her health and well-being. Self-treatment generates savings for patients and national health funds alike and its role will inevitably grow in importance. The proactive participation of pharmacists in self-care entails heightened expectations for their professional accountability and greater responsibilities towards patients. The modern lifestyle patterns we have discussed so far imply a growing interest in OTC drugs and bring the role of the pharmacist in effective self-treatment into sharp focus.

**Objective:** To conduct an analysis of the strengths, weaknesses, opportunities and threats that pharmacists face in their efforts provide patient counselling on effective and responsible use of OTC products.

## MATERIALS AND METHODS

A SWOT table as a classical SWOT analysis technique was used for the evaluation of the separate elements - strengths, weaknesses, opportunities and threats.

For the purposes of the SWOT analysis, the community pharmacy settings were identified as the internal environment, whereas the relevant economic, social, demographic, technological and political factors (legislation) associated with the use of OTC-products were identified as the external environment.

## RESULTS AND DISCUSSION

The performed SWOT analysis provides a consistent assessment and identifies strengths that can be employed to develop strategies to seize the opportunities, to correct the weaknesses, to buffer the threats, and to guide pharmacists in providing safe and efficient self-medication.

Given the external environment influencing the pharmacy practices within the EU countries (including Bulgaria), the analysis highlights the following basic aspects:

- Patient-centred policies;
- A shifting focus of health systems from disease treatment towards health prevention;
- Teamwork and patient-centred collaborative care;
- Economic crisis;
- Technological progress;
- a steady rise in the proportion of older persons;
- Increasing prevalence of chronic diseases;

These key features and the resulting factors characterize the threats and opportunities in the external environment. (Table 1) Capitalizing on their own strengths as the most accessible and highly qualified healthcare professionals, pharmacists can contribute to improving public health status and facilitate better therapeutic outcomes in individual patients. The mission of pharmacists to improve public health status extends beyond the pharmaceutical product supply. It is part of the wider strategy for maintaining public health with focus on better health status and quality of life. It's a common fact that patients visit community pharmacies twice as often as their physicians' offices. Thus, pharmacists become the most frequently visited healthcare professionals, and pharmacy practices prove to be in a unique position to provide patients with support and promote better public health status (PGEU 2012). In general, pharmacies have longer opening hours than other healthcare facilities and provide easy access to pharmaceutical care.

Pharmacists are required to constantly improve and update their knowledge and expertise, which enables them to perform their duties. In 1992, the International Pharmaceutical Federation (FIP) developed and adopted the guidelines for quality pharmaceutical services, called Good Pharmaceutical Practice (GPP). GPP guidelines stipulate the professional conduct of pharmacists and assistant pharmacists, set the criteria for pharmacists' self-assessment and self-monitoring, and provide patients with quality pharmaceutical care. Continuing education and life-long learning is pharmacist's professional and ethical obligation, which has been already incorporated in the legislation of many EU countries. In 2009, the Bulgarian pharmaceutical Union adopted the guidelines for Good Pharmaceutical Practice. The guidelines for GPP stipulate a set of minimum professional standards for quality assurance and improvement of pharmaceutical care in pharmacy settings. The Bulgarian Pharmaceutical Union provides continuing education for pharmacists in order to expand and update their knowledge and skills.

The role of the pharmacist has been changing over the past two decades. Pharmacists are not simply engaged in the supply of pharmaceutical products. They have become members of a team providing collaborative healthcare ([www.pharmabiz.com](http://www.pharmabiz.com)). The treatment outcomes should be a responsibility shared among physicians, pharmacists and patients. Effective communication with other healthcare professionals, and in particular with physicians, are considered a therapeutic partnership. Collaborative care and teamwork are essential for the optimal therapeutic outcome. The health system policies aimed at patient-centred care and health prevention, and WHO's strategies for promoting responsible self-treatment facilitate the constantly increasing use of OTC drugs.

Patient-centred pharmaceutical care in compliance with the guidelines for GPP in a government regulated pharmaceutical market is the strength that pharmacists should benefit from in promoting self-treatment and OTC drug use. In Bulgaria, only pharmacies and drugstores are authorised to sell OTC drugs (Ordinance No 4, 2009), which imposes on pharmacists the responsibility for managing appropriate self-medication. On the other hand, the Internet access to OTC drugs has a negative impact on patients' relation with their physicians and pharmacists, and poses serious risks to patient safety.

**Table 1. SWOT analysis of pharmacist's opportunities for promoting effective self-treatment**

S	W
<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Pharmacies are the most widespread healthcare facilities in Europe (PGEU 2011)</li> <li>• Pharmacists are the most accessible healthcare professionals</li> <li>• Community pharmacists in the EU are highly qualified healthcare professionals</li> <li>• Pharmacists rank among the 10 most respected and trusted professions</li> <li>• Pharmacists do not purely dispense drugs. They are members of a team providing collaborative healthcare</li> <li>• Effective self-treatment under the supervision of the pharmacist</li> <li>• Participation in early disease detection, prevention and control of chronic diseases</li> <li>• 99.99% computerization of EU pharmacies</li> <li>• Pharmacovigilance</li> <li>• Detection of threats to public health</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Insufficient well-structured electronic patient database</li> <li>• In Bulgaria, the concept of "personal pharmacist" is not widespread – pharmacists do not have enough familiarity with their patients</li> <li>• Lack of initiative, particularly in older pharmacists, for a continuing development of their professional knowledge and expertise</li> <li>• Under the pressure of the economic crisis, some pharmacies operate with insufficient staff</li> <li>• Lack of patient-tailored approach</li> <li>• under-reporting of ADRS</li> </ul>
<p><b>O</b></p> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• WHO's health policy focuses on patient's personal responsibility for self-treatment</li> <li>• The focus of health systems has shifted from disease treatment to preventive healthcare</li> <li>• Regulated pharmaceutical market</li> <li>• Drug information and drug advertising are subject to regulations</li> <li>• Organized continuing education of pharmacists in accordance with the guidelines of GPP (Good Pharmacy Practice)</li> <li>• Heightened expectations towards pharmacists</li> <li>• Increasing use of OTC drugs worldwide</li> </ul>	<p><b>T</b></p> <p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Economic crisis</li> <li>• Low level of health literacy</li> <li>• Development of technologies – the Web is a major source of medical and health-related information</li> <li>• Patients' distrust of the health system</li> <li>• Deregulation of the pharmaceutical market poses risks to patient safety</li> <li>• Improper self-medication poses risks to patients' health and well-being</li> <li>• Constantly expanding OTC drugs nomenclature - new and unfamiliar to the consumers products are registered on a regular basis</li> <li>• Risks of Internet fraud, counterfeit medicines, aggressive and misleading advertising</li> <li>• Internet access to medicines has a negative impact on the relation between patients and their physicians and pharmacists;</li> <li>• Unfair competition among pharmacy practices</li> <li>• Aging population associated with higher disease prevalence, hence with higher risks of self-treatment implications</li> <li>• Increased prevalence of chronic diseases (diabetes, asthma, cardiovascular diseases, COPD)</li> </ul>

As the most accessible professionals that are highly qualified in the field of medicinal products, pharmacists can contribute by:

- Providing patient counselling, promoting healthy lifestyle and disease prevention;
- Assisting effective individual healthcare and self-medication;
- Assisting safe and rational drug use;
- Identifying chronic diseases and maintaining chronic disease control;
- Assisting the crisis management in public health.

Heightened patients' health awareness and literacy are prerequisites for patients' active participation in the management of minor ailments and some disease symptoms. The professional conduct of healthcare professionals can facilitate the efficiency and practical skills of patients in implementing self-care. Self-care focuses on good physical and mental health, healthy diet, avoidance of harmful habits such as smoking and alcohol, and safe and efficient self-treatment (including the use of OTC drugs). Medicinal therapy is the most frequently employed therapeutic approach within the framework of modern health systems.

Given the aging population and the pharmaceutical innovations, the importance of drugs will be constantly rising. Pharmacists face the challenge of a demographic structure, characterized by a constantly increasing share of elderly population and an increasing number of patients with chronic diseases. Pharmacists should collaborate with other healthcare professionals in identifying and monitoring various chronic diseases. The majority of pharmacies are equipped to perform point-of-care testing, thus contributing to early disease detection.

When pharmacists observe abnormal measurements or health conditions that cannot be treated with OTC drugs, they should refer patients to the relevant healthcare professional or healthcare facility. Community pharmacists frequently act as 'radars' for threats to the public health. Pharmacists are in a unique position in the community that enables them to detect emerging health issues. Moreover, they have an essential role in the national strategies for crisis management (PGEU, 2012). Reporting of ADRs is part of the professional responsibility of pharmacists. Clinical tests are not sufficient to ensure that a medicinal product with a market authorization has manifested all its potential ADRs.

The risk-benefit ratio can best be analysed only after the drug has been placed on the market and has become available to a larger share of the population. In the developed countries, patient safety is a priority and one of the key factors for the sustainable development of healthcare systems. Health-related issues can be solved only with the help of a great number of various healthcare professionals. By reporting on ADRs to the national drug agencies, pharmacists can improve the quality of healthcare in terms of efficiency and pharmacovigilance. Unfortunately, according to the annual reports of the Executive Drug Agency, Bulgaria ranks among the EU countries where reporting of ADRs by health professionals is most scant. In times of economic crisis, all health budgets are under severe pressure. European governments are looking for ways to optimize the use of medicinal products, to maintain higher pharmacotherapy efficiency and to reduce the overall healthcare expenditures. The skills and expertise of pharmacists can be integrated in the strategy for achieving these objectives (PGEU 2012). When properly implemented, self-medication can generate substantial savings for the national health systems (www.cpme.eu, 2011).

OTC drugs enable health systems to reallocate their limited resources and use them for diagnoses and treatments that require physician involvement, while providing consumers with the opportunity to manage their own health and the health of their family with safe, effective and readily accessible treatment options for mild-to-moderate conditions (www.chpa.org, 2012). The deregulation of the pharmaceutical market and the opportunity for responsible self-treatment generates substantial reimbursement savings for the health systems. However, it places a significant strain on the budget of individual consumers. When appropriate, pharmacists can promote the use of more affordable generic medicines. The healthcare system generates savings from the decrease in benefits paid to citizens with health insurance coverage who do not need inpatient or outpatient treatment.

Self-treatment of minor ailments that do not require physician's supervision decreases the cost of lost productivity incurred by work absenteeism. The increased use of safe and effective OTC drugs can contribute to a substantial decrease in healthcare costs, thus shifting the focus on patients with emergency medical conditions. The free access to and the wide use of OTC drugs poses a great number of potential risks to patients' health. The major risks to patients are mainly associated with the disease-related complications as a result of inappropriate drugs, wrong dosage, incompatibilities with food and medicines, longer-than-recommended drug administration, incorrect self-diagnosis, and unduly delay in treatment. The shift from Rx status to OTC status for an expanding range of unfamiliar medicines poses a serious risk to patient safety. Polypragmasia has been recognized as an increasingly serious issue for modern health systems. According to WHO, in some countries, the costs of ADRs, including hospitalization, surgery, and lost productivity, exceed the drug expenditures (WHO, 2008). When dispensing OTC drugs, pharmacists assume a greater responsibility for providing quality pharmaceutical care and ensuring patient safety. Patients' distrust of the healthcare system, the use of a wide variety of unreliable information sources, the Internet drug-related frauds and counterfeit medicines, and the aggressive and misleading drug advertising are the disadvantages associated with the free access to OTC drugs.

Information on the Internet may be inaccurate or incomplete, and some sites show a high degree of commercialization of information (Killeen *et al.*, 2011). Given the informal presence of the Internet in healthcare, consumers' skills to sort through the abundant information and choose a reliable source of information, as well as the ability to assess their own condition are vital to patient safety. Pharmacy practices play a particularly important role in the drug supply chain. By improving the drug supply process, pharmacists can prevent patients from using counterfeit drugs. However, pharmacists do not simply perform a logistical role in the drug supply process. Dispensing of medicines is a professional pharmacist's activity. Simultaneously with the drug dispensing, pharmacists provide further medical information about side effects, ADRs, pharmacological action, instructions how to take medication, potential medicines-medicines or medicines-patient interactions.

This enables the patient to maximize the benefits of the pharmacological therapy (PGEU 2012). Medication management performed by pharmacists includes improved drug selection, therapy optimization and drug use. It maximizes the benefits and minimizes the risks related to patient's drug therapy (Tuesca-Molina *et al.* 2006). Drug therapy monitoring performed by pharmacists is a good example of a successful and effective intervention to optimize the therapy outcomes (NICE 2009, Leendertse *et al.*, 2011). This patient-tailored pharmaceutical service encompasses a review of all the drugs taken by the patient, the corresponding treatment regimens and routes of administration, and the potential adverse drug-to-drug interactions. In Bulgaria, the lack of well-structured information in patient electronic health records and the slow adoption of the concept Personal pharmacist hamper the implementation of the patient-tailored pharmaceutical care. The upcoming introduction of electronic healthcare in Bulgaria is expected to overcome these drawbacks. According to the Pharmaceutical Group of the European Union, the computerization of EU pharmacies in 2012 was as high as 99.9%. Patient-tailored pharmaceutical approach would be much more efficient when based on data about concomitant diseases and drug therapies.

The unfair competition among pharmacies, the financial strain and the economic crisis often force patients to seek low-priced drugs and low-cost treatment, rather than professional service and quality pharmaceutical care. On the other hand, the competition drives many pharmacies to diversify their product and service offerings. At the same time, they rely on insufficient staff that cannot provide adequate pharmaceutical services under the workload pressure. Pharmacists' conduct is expected to comply with the ethical and professional standards. As healthcare professionals, pharmacists' primary obligation is to act in the public interest, rather than to pursue purely economic goals. Therefore, it is important to ensure that there are certain safeguards that enable pharmacists to act independently and to protect them from commercial pressure. This is essential for the further development of pharmacy practice (PGEU 2012). The SWOT analysis in this article accounts for the benefits and the existing risks associated with the growing use of OTC. It puts the focus on pharmacists' responsibilities and their potential to promote rational drug use and effective and beneficial self-treatment.

## Conclusion

Over the last 20 years, there has been an important shift in the philosophy of healthcare and health culture with regards to patients' participation in disease treatment, health management and disease prevention. There have been changes in priorities and in the structure of healthcare services. Pharmacies, as an integral part of health systems, do not stay out this process. Very often, the pharmacist is the first and last point of patient's interaction with the health system. Being the most accessible healthcare professional and a reliable source of medical information, the pharmacist has the full potential to promote the integration of patient-centred care, thus enhancing the efficiency of the healthcare system and improving the quality of healthcare services.

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