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TRENDS IN THE SALES OF FOOD SUPPLEMENTS AND OTC PRODUCTS

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Abstract: *Dietary supplements are concentrated sources of nutrients or other substances with a nutritional or physiological effect. They are not a substitute for rational nutrition. Their role is to correct nutritional deficiencies, thus assuring consumers that they are getting enough of certain nutrients and there is no risk of developing a deficiency or supporting specific physiological functions. Therefore, they should not be considered as products having pharmacological effects on the body. This article examines trends in the sales of dietary supplements and over-the-counter medicinal products. The aim is to track and compare the sales of three pairs of products with similar composition for a period of one year, in pharmacies in Varna. The sales data as an absolute value of various commercial products registered as food supplements and over-the-counter medicinal product, were analyzed. Historical, statistical, and graphical methods were used. Results were processed using Microsoft Excel, version 2020.*

Despite the variable composition and quality of dietary supplements and the lack of clinical evidence to support their effect, there is an upward trend in their sales. The dietary supplement market is subject to constant changes, including scientific discoveries, regulatory changes, and consumer preferences. Although nutritional supplements should not claim to have a healing effect on the body, more and more consumers use them daily to solve various health problems. This poses a number of risks to the health of patients. In order to achieve a rational use of nutritional supplements, consultation with a health professional, as well as a good knowledge and understanding of the patient's condition, is essential.

Keywords: *food supplements, sales, OTS, pharmaceutical market*

INTRODUCTION

An increasing number of products promising a number of health benefits are reaching the pharmacy market. However, large parts of them are not medicinal but food supplements. In essence, nutritional supplements are designed to correct nutritional deficiencies, maintain adequate intake of certain nutrients, or support specific physiological functions. They are not medicinal products and cannot exert a pharmacological, immunological, or metabolic effect. Therefore, their use is unrelated to treating or preventing human disease or altering physiological functions.

Nowadays, health takes a central place in the lives of each of us, and in this regard, food supplements are gaining more and more popularity. They are more than just an addition to nutrition and diet, but are almost a mandatory part of a modern healthy lifestyle and the path to longevity.

Therefore, nutritional supplements are often a preferred product of patients in a pharmacy. The reasons for this choice are numerous, among which the availability and intensive advertising of dietary supplements are essential. However, they differ from traditional drugs in several ways. First of all, the development of medicinal products itself is a long and complex process. Medicines are thoroughly evaluated for their effectiveness, quality, and safety. Medicines are also subject to pre-market regulation. However, this does not apply to dietary supplements. In the EU, food supplements are regulated as food and are controlled by the Food Safety Agency. (Williamson EM, Liu X, Izzo AA., 2020; Crawford C, Avula B, Lindsey AT, Walter A, Katragunta K, Khan IA, Deuster PA., 2022)

Dietary supplements are only evaluated for safety, not efficacy. This means that claims on food supplement labels and leaflets have not been peer-reviewed and may be untrue. In addition, an increasing number of dietary supplement manufacturers are deciding to market their products as medical devices. This avoids the need to provide evidence of the effectiveness and safety of the products.

One of the most significant drawbacks of nutritional supplements is their safety profile. Accurate identification of their chemical composition is a critical factor in their safety. The possibility of damage to the liver and excretory system is significant. The numerous reported cases of liver damage after using dietary supplements are another strong proof that the lack of regulation of the trade in dietary supplements exposes consumers to severe risks. (Georgieva Stanislava, Agova Nadya, 2020).

Effectiveness, side effects, and other reactions are studied in detail during these trials. As a result, there is usually a large amount of scientific data available on the safety of medicinal products.

The effectiveness and promotion of dietary supplement use are also critical. Demonstration of efficacy requires the conduct of clinical trials with well-defined outcomes and rigorous experimental standards

The interest in food supplements is constantly growing because they are sources of nutrients (minerals and vitamins) that have nutritional or physiological effects and are offered in dosage forms (Agova N, Petrova G, Georgieva S, Kumanov I., 2020).

Patients believe that an improper diet and unhealthy lifestyle lead to increased costs for pharmaceutical products, which is likely the reason for the increase in spending on nutritional supplements and medical devices. Undoubtedly, the rational use of dietary supplements is associated with both a better knowledge of the disease and an increase in the awareness of patients regarding the safety of the use of nutritional supplements. (Tsvetkova A., 2020)

The global nutritional supplements market is estimated at 454.55 billion US dollars in 2021 and is expected to increase at a compound annual growth rate (CAGR) of 9.0% from 2021 to 2030. The growing demand for nutritional supplements and functional foods is expected to be a key driver for the pharmacy market. The favorable outlook for dietary supplements in light of their growing application in treating cardiovascular disease and obesity feeding is likely to stimulate the growth of nutrients. (GlobeNewswire, Nutraceutical Market Size, 2020 – 2027)

Although individual nutritional supplements increase and decrease in popularity regionally, according to data from the analyst company IQVIA, sales of pharmaceutical products for 2021 are worth close to BGN 5 billion, and the market for nutritional supplements and cosmetics reaches BGN 815 million. At the same time, a double-digit growth - 17% - is observed in the sale of food supplements.

EXPOSITION

This article discusses the sales of medicinal products and dietary supplements. The aim is to track and compare the sales of three pairs of products with similar composition for a period of one year, in two pharmacies in the city of Varna.

Material and methods

Sales data were analyzed as an absolute value of different products of the same therapeutic group. The data represent sales of over-the-counter medicinal products and dietary supplements in the same dosage form, over a period of one year.

For the purposes of this development, we selected the following products:

- Locally acting laxative that stimulates intestinal peristalsis - medicinal product and food supplement;
- Product containing simethicone - medicinal product and medical device;
- Product containing magnesium - a medicinal product and food supplement.

In this article, we track the trends in the sale of medicinal products and food supplements, such as the absolute value for 2021 and 2022. The data represents the number of sales for the period in two different pharmacies in Varna. In compliance with REGULATION (EU) 2016/ the names of the pharmacies are represented by symbols A and B.

For a period of one year, the following sales presented in Fig. 1, Fig.2, and Fig. 3 were reported.

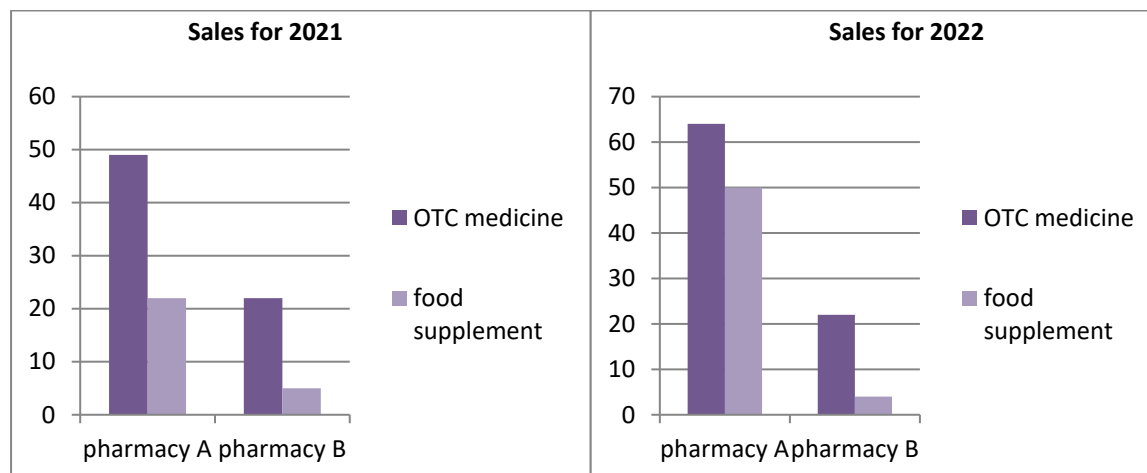


Fig. 1 Laxative sales comparison

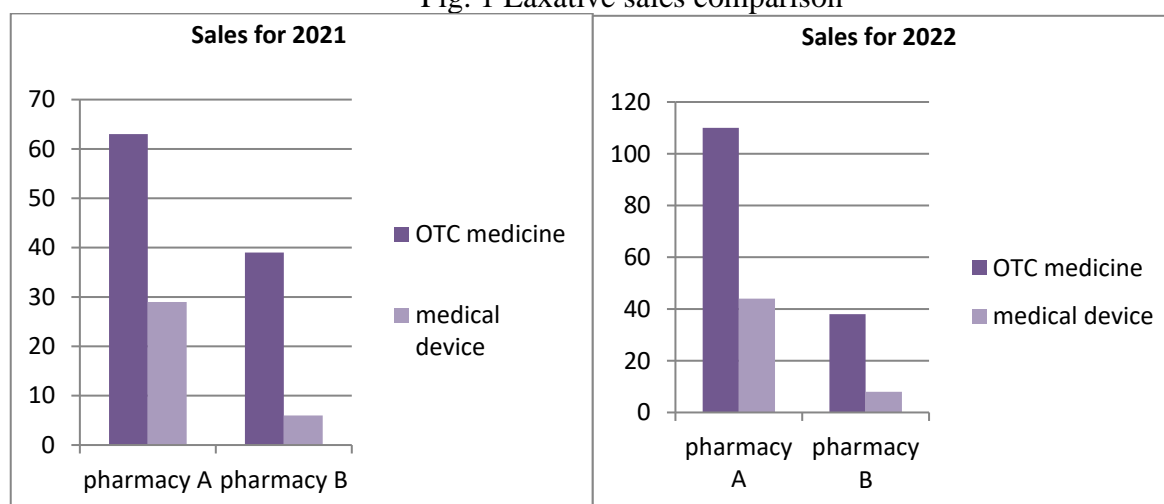


Fig. 2 Sales of products containing simethicone

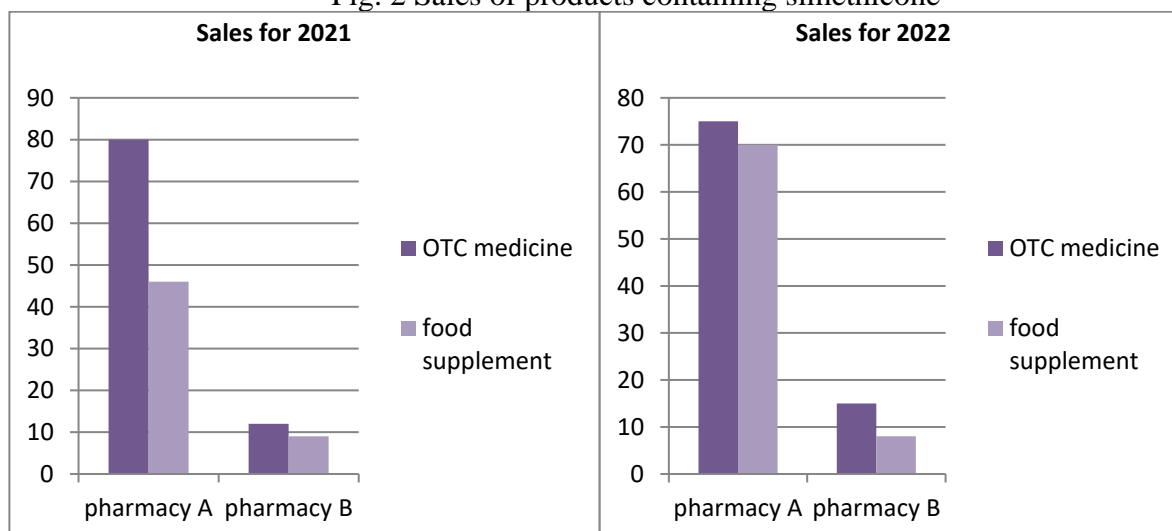


Fig. 3 Sale of products containing magnesium

From the presented data, sales of OTC stand out significantly. The difference is evident in products containing simethicone, where the medicinal product is categorically preferred over the medical device. Similar are the trends in laxatives, where the medicinal product is categorically preferred. Both the OTC product and the dietary supplement experienced year-over-year sales growth for magnesium-containing products. Impressive is the significant increase in sales of dietary supplements containing magnesium in 2022 compared to the previous one. For 2021, patients strongly prefer medicinal products, with next year's sales almost flat.

It should be noted that the decisions of consumers whether to take medicinal products without a medical prescription or food supplements are primarily influenced by the recommendations of the pharmacist in the pharmacy. Patients are not always sufficiently informed about whether their chosen product is an OTC or a dietary supplement.

Consumer preferences are also provoked by the ease of access to these products: through all modern forms of communication and their offer without restrictions in trading facilities and electronic portals, international trade through several advantages, including favorable discounts and delivery options. This reflects the development and dynamics of sales.

CONCLUSION

Despite the variable composition and quality of nutritional supplements and the lack of clinical evidence to support their effect, their sales have an upward trend. The dietary supplement market is subject to constant changes, including scientific discoveries, regulatory changes, and consumer preferences, which may vary over time.

A patient's choice of whether to take nutritional supplements or over-the-counter medications may depend on various factors, including regional characteristics, marketing campaigns, availability, and individual consumer needs and preferences. Some of these factors include:

- **Support for a healthy lifestyle:** Nutritional supplements are seen as a way to support a healthy lifestyle. Many people use them to improve their diet and provide certain vitamins, minerals or other ingredients lacking in their daily diet. Many turn to nutritional supplements because they believe they are a natural solution to their health problems;

- **Over-the-counter:** Unlike prescription drugs, nutritional supplements can be purchased without prior consultation with a physician. This factor can make them more accessible to consumers;

- **Aging Population:** In countries with aging populations, increasing dietary supplement needs may increase market demand.

The free access to nutritional supplements and medical devices in open-access pharmacies is essential for the observed growth in sales. This allows the patient to choose the product himself without the need to consult a health professional. Dietary supplements are also available in supermarkets, online stores, and specialty health food stores. Online commerce provides greater accessibility and convenience for shopping for nutritional supplements, which may encourage consumers to purchase them.

Patients' attitudes towards safety, efficacy, and their individual understandings of healthy and dietary nutrition are the basis of the demand for dietary supplements in pharmacies. Since safety is critical in selecting and administering nutritional supplements, the trend in the field is likely to be toward more significant analysis and control of these products before consumers' release and use. The growing trend among consumers to change their eating habits is likely to increase the demand for dietary supplements in pharmacies.

To ensure the rational use of nutritional supplements, a rigorous research approach is critical to determine under what circumstances nutritional supplements may benefit the body, including preventive health effects. In addition, potential differences in vitamin and micronutrient requirements during different life cycle stages and in various pathological conditions need to be evaluated.

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