

**ОБІЗНАНІСТЬ СТУДЕНТІВ ФАРМАЦЕВТИЧНОГО ФАКУЛЬТЕТУ ЩОДО
ДЖЕРЕЛ НАТРІЮ В РАЦІОНІ – РЕЗУЛЬТАТИ ОПИТУВАННЯ
П'ЯТИКУРСНИКІВ**

**PHARMACY STUDENTS AWARENESS OF THE DIETARY SODIUM SOURCES –
THE RESULTS OF THE SURVEY AMONG THE FIFTH-YEARS**

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Анотація. Проведено анонімне добровільне дистанційне опитування було серед студентів денної форми навчання Національного фармацевтичного університету (п'ятикурсники фармацевтичного факультету). При опитуванні визначали рівень знань щодо таких аспектів, як регуляція водно-сольового обміну, харчові джерела натрію, продукти з низьким вмістом натрію, а також оцінювали рівень власного споживання солі респондентами та їхніх харчових звичок, пов'язаних з цим фактором. Отримані результати дозволяють модифікувати навчальний процес з метою більш ефективного здійснення фармацевтичної опіки майбутніми фармацевтами.

Ключові слова: Натрій, модифікація раціону, серцево-судинна захворюваність, фармацевтична опіка.

Abstract. The anonymous voluntary distance survey was conducted among full-time students of the National University of Pharmacy (the fifth-years of the pharmaceutical faculty). The survey addressed such aspects as knowledge of water-salt metabolism regulation, food sources of sodium, types of food with low level of sodium as well as estimation of the own salt consumption of the respondents and their dietary habits related to this factor. The results obtained allow modifying the teaching process in order to improve the proficiency of the future pharmacists in pharmaceutical care providing.

Key words: Sodium, dietary modifications, cardiovascular morbidity, pharmaceutical care.

Тема НДР «Фармакологічне вивчення біологічно активних речовин та лікарських засобів» (номер держреєстрації 0114U000956, 2014–2023 pp.).

Introduction. The problem of cardiovascular diseases prevention remains unsolved, and one of the ways towards its overcoming presupposes the correction of salt regimen. The disbalance in sodium and other elements consumption with the prevalence of the former and the deficit of potassium, magnesium, calcium contributes to the development of cardiovascular diseases, exacerbates their course, decreases

the efficiency of commonly used drugs [1, 2]. From the other hand, the significance of pharmaceutical care and the role of pharmacist constantly increases, and just this specialist often provides information about lifestyle modifications to the patient, including those related to the salt consumption decrease and using of salt substitutes. Previously we have estimates the state of awareness of pharmacy students of the correction of the mineral composition of the diet through the use of salt substitutes [3]. Still, the problem of student's awareness of excessive consumption of salt as well as

practical implementation of their fundamental knowledge including the choice of their own diet was not addressed.

The aim of the study. The study aimed to determine pharmacy students' attitude towards salt consumption including the knowledge of water-salt metabolism regulation, food sources of sodium, types of food with low level of sodium as well as estimation of the own salt consumption of the respondents and their dietary habits related to this factor. The results of the study are the part of the complex work aimed at the estimation of pharmacy students' awareness of salt consumption as a cardiovascular risk factor in the context of pharmaceutical care.

Materials and methods. The questionnaire was developed with the partial modified use of the questions from [4, 5], and the anonymous voluntary distance survey was conducted among full-time students of the National University of Pharmacy (Faculty of Pharmacy, specialty 226 "Pharmacy, industrial pharmacy," educational program "Pharmacy"). The fifth-years were chosen as a target group since they had already completed fundamental studies of pharmacology, pharmacotherapy, and continued studies in clinical pharmacy and pharmaceutical care. Moreover, among the respondents, 13% had intermediate vocational training and qualification equivalent to pharmaceutical assistant, 23% worked part-time in pharmacies and were involved in dispensing of drugs. Work experience ranged from 2 months to 2 years. Thus, the target group of the respondents possessed professional knowledge and partially started professional activities.

Results. 78 answers were obtained that can be considered sufficient in view of the total quantity of the students of this course. It was shown that the respondents demonstrate a sufficient level of knowledge about the fundamental aspects of water and electrolyte metabolism, the role of a diet excessive in sodium in the development of diseases of the cardiovascular system and kidneys. Still more attention needs to be given during the teaching process to the

importance of a diet excessive in sodium in the development of metabolic disorders.

Among the food sources of sodium, 32 % of the students specified food salt per se (it was the second-highest variant, 36% indicated smoked meats, sausages, salted and smoked fish), thus indicating the overestimation of adding salt to the food ("putting salt on things"), since the highest quantity of sodium nowadays is received as the ingredient added to the numerous food during the technological process. Other food sources of sodium were specified correctly by the students, still there is an underestimation of bread and bakery in this context – only 8 % of the respondents named these products, while there is a great attention towards sodium content reducing in bread now. The choice of high-sodium foods from the proposed list was done largely successful, the most significant problem being in considering unprocessed meat and fish, cereals, dairy products as the sources of sodium (21%, 9%, 14% of the respondents, respectively). In the similar question with the choice of low-sodium foods, the only problem was seen in erroneous indication of bread and fast food as low-sodium foods in a few cases (10% for each variant).

When the respondents were asked to choose 3 most significant (in their opinion) factors for the healthy nutrition (standard question from [5]) only 5% had chosen the reducing of sodium intake. Nevertheless, the dietary habits of the respondents mostly were estimated as favourable in the context of sodium intake, except for quite frequent adding of salt to the dishes during or after cooking.

Conclusions. Sodium consumption decrease is an important way to overcome cardiovascular morbidity, and there is a significant niche for pharmaceutical care development in this field, so these aspects should be integrated into the teaching process.

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