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The phenomenon of self-healing among people over 65 in the Lublin region

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Key words: Self Medication, Aged, Nonprescription Drugs

ABSTRACT

Introduction

Self-medication is a phenomenon that has been accompanying people for centuries. Nowadays, it is gaining strength due to increasing health awareness and greater availability of medicines. Self-medication significantly relieves the public health care system and can be considered as a positive phenomenon of public health. However, it involves threats such as polypharmacy, drug interactions or delayed diagnosis of serious diseases, especially dangerous for the elderly.

Objective

The aim of this study was to assess the occurrence of self-healing among patients of one of Lublin's hospitals and their determinants.

Material and methods

The research was carried out between May and August 2014 among 140 aged over 65 years patients of Hospital of Jan of God in Lublin and members of their families. The study used methods diagnostic survey and a questionnaire constructed by the authors. The obtained results were subjected to statistical analysis using the STATISTICA 13.0 program. Significance of intergroup differences was verified using the Pearson Chi-square test.

Results

79.29% of respondents admitted that they buy over-the-counter drugs. The ailments that were the cause of self-medication were the common cold (32.14%), pain (29.29%), weakness of the body (19.29%), gastrointestinal complaints (12.14%) and inflammation of the upper respiratory tract (9.29%).

Conclusions

Self-medication among seniors is a very common phenomenon. Nearly half of the seniors surveyed change their medical recommendations, most often shortening the time of using drugs only to relieve symptoms or taking medications selectively. Therefore, there is a need for intensive education of patients regarding self-medication with the use of over-the-counter drugs.

INTRODUCTION

Self-healing is a broad and ambiguous idea. It can be understood as self-care, self-management and self-medication.

The first of these concepts includes caring about your health in everyday life. It manifests itself in taking health behaviors, such as the use of rational diet, regular physical activity, refraining from the use of tobacco products, effective stress management and routine, active control of health in order to react quickly in case of alarming symptoms.

Self-management interpreted as self-leading or self-control of disease is a phenomenon particularly desirable in conditions of chronic disease such as diabetes, chronic obstructive pulmonary disease or asthma. Patients suffering from these diseases by daily control of symptoms may, to the extent recommended by the doctor, modify the treatment by changing the number or dose of the prescribed drugs. An important element is also the active search for early symptoms of complications of the existing disease. Such behaviors significantly reduce the number of unnecessary medical interventions and the associated cost of treatment, as well as positively affect the quality of life of patients. The effectiveness of treatment of chronic diseases increases, although some of the therapeutic decisions are transferred to the patient.

The phenomenon of self-medication consists in the self-ordination of medicines, comprehensively understood as the use of drugs not given by a doctor, or prescribed to family members or acquaintances and taking remnants of medicines from a previous course of treatment, or stored in a home medicine cabinet, as well as a change of dosage prescribed by a doctor or taking dietary supplements [1, 2]. Self-healing and hence self-medication is the reaction of the individual to the current state of his own health. This is clearly indicated by the WHO guidelines that define the phenomenon of self-medication as the use of medicines by the consumer in the treatment of diseases or symptoms diagnosed independently [3].

Self-medication can be assessed in a very different ways: it seems to bring positive effects to public health, but on the other hand, it involves many serious threats.

Self-medication significantly reduces the burden of public health services in the treatment of benign ailments, allows for savings resulting from the reduction of costs associated with the visit to the doctor. A study commissioned by the British Ministry of Health showed that

thanks to self-treatment, the number of medical consultations fell by 40%, home visits by 17%, it also resulted in a 50% reduction of ambulance interventions, hospital visits and hospitalization [4]. Also the report of the Association of the European Self-Medication Industry indicates that the transfer of 5% of prescription medicines to a group of medicines issued without a doctor's prescription brings savings of 16 billion euro across the European Union Countries , due to the lower burden on public health systems [5]. In addition, reducing the number of medical consultations in family doctors' clinics may positively affect the quality of services they offer, as they have more time. Finally, self-treatment also brings specific benefits to patients using them. It allows them to save time and financial resources associated with a doctor's visit. In the case of patients suffering from chronic ailments, it improves the quality of life, and in the longer term results in more satisfactory treatment results [6].

Self-medication also brings with it many threats. One of them is polypharmacy and drug interactions. Patients may experience adverse or unpleasant side effects from over-the-counter medications. It is also dangerous to postpone the medical consultation, delay diagnosis if serious disease entities are a problem.

One of the most commonly used over-the-counter medications are non-steroidal anti-inflammatory drugs (NSAIDs) and analgesics without anti-inflammatory effects such as paracetamol or metamizole. The use of non-steroidal anti-inflammatory drugs is associated with the risk of renal dysfunction and ulcerogenic effects. The risk of these complications increases with age. The ulcerogenic effects are also intensified by the use of glucocorticosteroids or bisphosphonates used in the treatment of osteoporosis. The simultaneous use of acetylsalicylic acid for cardiological indications is also a risk factor for the development of peptic ulcer disease. NSAIDs minimize antihypertensive activity of drugs from the group of calcium ion antagonists to the smallest extent, however, they have a significant influence on the effects of drugs from the group of beta blockers and ACE inhibitors, they also reduce the therapeutic effect of loop diuretics, and to a lesser extent, thiazide ones [7]. NSAIDs to a very large extent bind to blood proteins. The concomitant use of oral anti-diabetic drugs from the sulfonylurea group increases the free fraction and increases the risk of serious hypoglycaemia, which is particularly dangerous for older people. The use of paracetamol is associated with the risk of hepatotoxicity. Complex

preparations used in the symptomatic treatment of common cold are also often used by patients without doctor's ordinance. These preparations contain NSAIDs most often in combination with pseudoephedrine . They can cause high blood pressure, tachycardia, headaches and insomnia. They should not be used together with alpha-1 adrenergic receptor antagonists used in benign prostatic hyperplasia. However, the highest risk is associated with the concomitant use of two or more NSAIDs, which carries a high risk of upper gastrointestinal ulceration and acute renal failure.

Self-medication is dangerous phenomenon especially among the elderly, often suffering from chronic diseases. The use of medicines available without a prescription along with medicines prescribed by a doctor, carries a high risk of harmful interactions. The use of additional drugs by older people who may suffer from cognitive impairment, seems to be associated with the danger of incorrect dosing. Self-medication based on self-diagnosis is also more dangerous in the group of older people, because of the symptoms of disease in this life period is often not characteristic, and coexisting diseases can significantly affect the patient's diagnosis.

OBJECTIVE OF THE WORK

The aim of this study was to assess the occurrence of self-healing among patients of one of Lublin's hospitals and its determinants.

MATERIAL AND METHODS

The study was conducted in the period May-August 2014 year among 140 patients of John of God Hospital in Lublin and members of their families. The criteria for inclusion in the study were age over 65 and voluntary expression of willingness to participate in the project. The study used the method of a diagnostic survey with a questionnaire constructed by the authors. The survey contained 26 questions. The first part concerned the sociodemographic data of the respondents, subsequent questions related to the problem of self-treatment - the circumstances, the type of treatment used and the reasons.

The obtained results were subjected to statistical analysis using the STATISTICA 13.0 program. Significance of intergroup differences was verified using the Pearson Chi-square test.

RESULTS

The largest group of respondents were people aged 65-74 - 47.86 %, then people aged 75-84 – 39.29 %, 85-94 – 12.14 %, and the least numerous was the age group above 95 years - 0.71 %. The share of women in the studied population was estimated at 60.71% (n = 85), and men at 39.29% (n = 55). Most of the respondents lived in large cities - 39.29%, smaller cities 27.85% and the village - 32.86%. The highest number of respondents declared secondary education (40%, n = 56), 31 people (22.14%) had a vocational education, one fifth - higher, and the smallest percentage of people participating in the study had primary education 17.86% (n = 25). Nearly two-thirds of the respondents rated their material situation as an average , 22.14 % as quite weak (n = 31) , and 15.71% as good (n = 22) . The most frequently declared disease among patients was arterial hypertension (62.14%, n = 87), osteoarthritis (spine, knees, 52.86%, n = 74) and ischaemic heart disease (27.14%, n = 38). The vast majority of respondents (85.71%, n = 120) was taking medications dispensed by prescription only, while 79.29% of respondents admitted to buy drugs available without a prescription. Almost half used these drugs often, and one-eighth very often. It was found that women buy non-prescription drugs more often than men. Relationship between gender and acquisition of drug was statistically significant (p = 0.02).

Ailments, which were the cause of self-medication was the most commonly cold (32.14%, n = 45), pain (29.29%, n = 41), the body weakness (19.29%, n = 27), gastrointestinal ailments (12.14%, n = 17) and inflammation of the upper respiratory tract (9.29%, n = 13) . About one-third of respondents in the case of any symptoms of the disease, immediately seek medical advice, a similar number of people in the same circumstances use self-treatment.

Medication	%	n
Vitamins	29,29%	41
Cold medicatations	25,71%	36
Analgesics	24,29%	34
Sore throat lozenges	22,86%	32
Antipyretics	20,71%	29
Herbal formulations	14,29%	20
Nose drops	10,00%	14
Immunity enhancers	5,71%	8
Antiallergics	0,71%	1
Antibiotics	0,71%	1

Table 1 . Drugs most often used in self-medication.

The table above shows that the medications the most commonly used without medical consultation are vitamin preparations, cold medicines, analgesics, antipyretics, lozenges for sore throat, drops reducing nasal edema and herbal preparations. Antibiotics and antiallergics were relatively rarely used.

When the respondents make a decision about taking specific preparations, half of them very often read the leaflet attached to the medicine package. A quarter does it rarely, and 9.29 % of surveyed patients declared that it does it very rarely or never. The same number of patients very often consult a doctor using medications purchased on their own. A quarter of them do it very rarely, and nearly a third - never. However, the majority of the respondents (79.29%, n = 111) consult the purchase and dosing method of the discussed drugs with a pharmacist. As the most common source of information on over-the-counter drugs, the respondents mentioned family and friends (42.86%, n = 60), doctor and pharmacist (34.29%, n=48) and media (22.86%, n = 32).

Another issue regarding self-medication, raised during the survey, was the modification of medical prescriptions regarding the use of prescription drugs. Nearly half of the respondents admitted that they had changed their doctor's instructions. The level of education did not significantly influence the undertaking of such activities. The most common form of modification was to use the medication shorter than according to the prescription of the doctor, only until the symptoms subsided (30%, n = 42). One quarter of the respondents admitted that they choose the best according to them drugs from those recommended, without purchasing the others, and 19.29% independently change the dosage.

The collected data shows that the surveyed seniors most often supplied with over-the-counter drugs at the pharmacy (3/4). 20.71 % buy them in the supermarket and at the gas station (n = 29), and only every twentieth person via Internet.

During the use of over-the-counter drugs, only 17.86% of respondents noticed adverse reactions (n = 25): short-term abdominal pain, nausea, trembling hands, a feeling of heat and itchy skin.

Almost every fourth of patients used non-medical treatment in the past in the form of folk healers' services. The health problems that they wanted to solve in this way were back pain,

phlebitis, injuries to the ankle. Several respondents used the services of a bioenergy therapist and herbalist. There is no relation between the use of such services and education.

Finally, the patients were asked about the reasons for taking self-medication. 55% of respondents as a reason reported limited access to health care (n = 77) . 29.29% indicated lack of time to visit the doctor (n = 41), 12.14% said they had no money to see healthcare professional (n = 17), and only 4.29% of respondents said, they have more knowledge from the doctor and do not need his consultation (n = 6).

Statistical analysis showed a significant relationship between gender and factors influencing the decision to self-medicate ($p = 0.00024$). It was shown that women more often pointed to lack of time and lack of money for a visit to the doctor as the main factors influencing the decision to self-heal. Men, on the other hand, more often claimed that difficult access to health services, forces them to self-medicate.

DISCUSSION

Health is one of the most important values for Polish. Having good health is indicated by almost three-fifths of respondents (57%) as one of the most important goods. Only family happiness is valued higher [8].

According to Lalonde, the lifestyle has the biggest impact on human health (53%) [9]. Under this concept is meant eating habits, level of physical activity, ways of coping with stress, taking stimulants, and all actions taken by the individual to preserve and improve health, including self-medication. In many societies, raising the socio-economic status and the level of education has become the beginning of the development of the self-medication.

The beginnings of the phenomenon of self-healing, understood as self-medication, in Poland are associated with systemic changes. During the transformation of the state system, many non-prescription drugs have appeared on the market. However, the most important factor affecting the increase in popularity of self-medication in Poland were changes made in pharmaceutical law in 1994 year, enabling advertising of over-the-counter medications in the media [6]. Research carried out by CBOS in 2016 showed that the majority of Poles believe that the responsibility to protect their health rests mainly on them, 55% of respondents consider it [8]. One of the methods of taking care of your own health is self-

medication. In Poland, the OTC market constitutes over 26% of the entire pharmaceutical market (compared to the European average 14.9%), and the sale of these drugs complements 22.3% of the statistical turnover of the pharmacy [10]. According to the research of the Health Care Information Systems Center, three-quarters of Poles use over-the-counter drugs. Self-medication is most often taken by women with higher education and high financial status [11]. Elderly people, surveyed by Misztal-Okońska et al., to a lesser extent declare taking self-medication, it was 60% of the total population [12].

CBOS research "OTC drugs and dietary supplements" have shown that in the course of the year before the study, almost nine out of ten adults (89%) used over-the-counter drugs. Expenses for these drugs were by far the highest in the group of people aged 65 and over. The most common were painkillers and anti-inflammatories (68%), as well as medications alleviating the symptoms of colds or flu (68%). Over half of the respondents (52%) also received vitamins, minerals and agents improving the overall body's immunity. Over a quarter of adults (27%) used over-the-counter medications to allay gastrointestinal complaints [13]. Respondents of our study also very often undertook self-medication. 79.29% of them admitted that they bought over-the-counter drugs, and almost half used these drugs often. The agents used in self-treatment were mostly vitamin preparations, cold medicines, analgesics, antipyretics, throat lozenges tablets, drops reducing nasal edema, and herbal preparations. Attention is drawn to the fact that the respondents pointed to drugs useful in combating colds, fevers and pain as separate categories. These drug groups contain non-steroidal anti-inflammatory drugs. The use of two or more drugs in this group carries a significantly increased risk of side effects in the gastrointestinal tract and kidneys. This risk is additionally increased when taking into account the frequency of rheumatoid syndromes in the elderly (in own studies more than half of the patients suffered from osteoarthritis) and by chronic inflammation and pain syndromes that are treated by physicians using non-steroidal inflammatory drugs, making seniors the main consumers of these drugs [14].

Elderly respondents admitted that apart from taking drugs on their own, they regularly take drugs prescribed by doctors for chronic diseases such as hypertension, ischemic heart disease or rheumatoid diseases (it was 85.71%). Thus, the phenomenon of polypharmacy was

observed among them. The use of the most commonly used non-steroidal anti-inflammatory drugs in self-management carries the risk of interaction and reduction of the efficacy of antihypertensive agents and diuretics used in cardiology, as well as an increase in the free sulfonyleurea fraction and increase the likelihood of serious hypoglycaemia. Also during multicentre studies within the PolSenior project, it was shown that seniors are the main clients of the pharmaceutical industry. It was found that older people in Poland on average take more than 5 medications on a daily basis, including over one drug available without a doctor's prescription. The authors of the study also observed that more than half of the respondents used at least 5 medications daily and more than 10% - more than 10 drugs [15]. The polypharmacy described also on the basis of own research is not positive phenomenon not only due to drug interactions. There is evidence that the concomitant use of five or more drugs is important risk factor of hip fracture in older people [16]. The use of many drugs by the elderly also increases the likelihood of depression [17], falls [18], and exacerbation of senile delirium [19].

The results of our own research show that half of the respondents very often read the leaflet attached to the medicine package. A small percentage of patients consult a doctor using medications purchased on their own, but the majority of respondents consult the purchase and dosage method of the medicines in question with the pharmacist. As the most common source of information about over-the-counter drugs, the respondents mentioned their family and friends, doctor and pharmacist, and the media. The above data indicate the extremely important role of pharmacists and pharmaceutical care in the process of self-healing of the elderly. The key role in self-medication should be played by education, being the task of pharmacists. The pharmacist should try to prevent errors associated with taking preparations containing the same active substance. His task is also to rationally control the self-medication process and refer patients to the doctor if he suspects that the symptoms are too serious to be treated on their own [20]. Probably, for many patients, getting a pharmacist's advice is less time-consuming and involves less stress than visiting a doctor. However, on the other hand, CBOS indicates that when using a drug available without a prescription, more than half of respondents at least sometimes consult its use, not only with the pharmacist, but also with the doctor (52%, and 28% always do). 88% (and 69% always) read the leaflet attached to the medicine, and 29% (7% always) check the information and opinions about its effect in the Internet [13]. In turn, almost all seniors (91%) who were members of the University of the

Third Age and patients of the sanatorium in Nałęczów answered that they read information about the medicines they take, indications and contraindications for their use included in the leaflet [12]. Acquiring information on drugs from the package leaflets seems to be part of the transfer of responsibility for treatment to patients. Their content is adapted to the medical knowledge of patients, but the use of leaflets as the only source of information is quite risky, especially for older people. Many of them suffer from deterioration of visual acuity and cognitive impairment, which hinders proper acquisition and understanding of information.

For the seniors surveyed, the place where the drugs used in self-medication were purchased, was usually the pharmacy (3/4 of the respondents). Much less, because one-fifth was getting supplies in the supermarket and at the gas station. This fact should be assessed as positive, because most of the respondents have a chance to get reliable advice from a pharmacist.

Another aspect of self-medication examined, was issue of medical recommendations changing. Over a half of seniors admitted to such activity. The most frequently, drugs were used shorter, only until the symptoms subsided or the medicines were used in a selective manner (every fourth person) or self-adjustments of doses were made (almost one fifth). The problem of patient interference in the manner of taking and dosing of drugs is well described in the world literature. It may affect even 30-40% of the population [21]. In the case of chronic diseases, often affecting the elderly, based on the analysis of data of 60,000 Polish patients, non-compliance with over 83% of patients was revealed, which is a much higher percentage than in the analyzed own research [22]. Interesting data were obtained by Neumann-Waszka et al., who stated that almost half of the respondents modified doses of analgesics commissioned by the doctor, with 33% seniors examined setting the dose by themselves [23]. It is alarming that both self-taking of non-steroidal anti-inflammatory drugs and changes in the dosage recommended by the doctor can lead to a reduction in functional capacity. In addition to the previously described side effects, negatively affecting the general functioning of the elderly, widely used analgesics can become a cause of hypertension [24]. What is more, their sudden discontinuation creates the danger of sudden decreases in blood pressure and particularly serious falls for seniors.

Self-treatment is also non-medical practices, that is, the use of so-called folk healers. Almost 25% of respondents admitted to it. There is no relation between the use of such services and education. In the Lesińska-Sawicka et al. study, the oldest participants (over 50 years of age)

used folk medicine methods more often (79%) [25]. Similarly, a high percentage of subjects with multiple sclerosis used non-medical treatment (about 70%) [26], while only less than 20% of respondents with cancer treatment resorted to this form of therapy [27].

The last topic that was taken during the survey of seniors was the reasons for the use of self-healing. Over half of the respondents as a reason reported difficult access to health care. The data contradict the opinion expressed by the respondents in CBOS surveys. According to them, the strongest aspect of the Polish healthcare system is the availability of primary care physicians (74% of positive marks) [28]. Interestingly, it is the doctors with specialization in family medicine who are responsible for the treatment of the most common health problems, which are also the most frequent motive of self-healing. Other causes for taking self-medication, mentioned by the seniors, are the lack of time or resources to visit doctor's surgery or having more knowledge than health professionals.

CONCLUSIONS

1. Self-treatment among seniors is a very common phenomenon.
2. The most commonly used drugs are useful in the symptomatic treatment of colds, analgesics, antipyretics and vitamins.
3. Most of the respondents consult a pharmacist before buying over-the-counter drugs.
4. Nearly half of the seniors surveyed change their medical recommendations, usually shortening the duration of medication, using it only to relieve symptoms or taking medications selectively.
5. A quarter of seniors used the services of so-called folk healers.
6. There is a great need to educate patients about taking over-the-counter drugs, as self-medication can lead to dangerous drug interactions or serious side effects.

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