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# Wpływ reklam suplementów diety na studentów lubelskich uczelni

# supplements advertising on the Lublin university students

The influence of dietary

#### Streszczenie

Wstęp. Przekaz medialny posiada potężną siłę oddziaływania na odbiorców, jego moc manipulacji często kieruje naszymi działaniami oraz kształtuje naszą wiedzę. Cechą charakterystyczną wyróżniającą prasę od innych źródeł informacji jest możliwość powrotu do wcześniej przeczytanych treści, to sprawia, że staje się ona bardziej wiarygodna od innych przekazów. Aktualnie w środkach masowego przekazu umieszczana jest ogromna liczba reklam zachęcających do stosowania licznych suplementów diety.

Cel. Celem niniejszej pracy było zbadanie czy i jak reklamy suplementów diety w popularnych magazynach kobiecych wpływają na zapoznającego się z nimi młodego odbiorce.

**Materiał i metody.** Metodą badawczą był sondaż diagnostyczny, zaś techniką badawczą kwestionariusz ankiety. Skonstruowana na potrzeby badań ankieta zawierała 12 pytań dotyczących odbioru i oddziaływania reklam suplementów diety na respondentów oraz 4 pytania metryczkowe.

Wyniki. Respondenci spostrzegli, że w prasie najwięcej jest reklam suplementów diety wspomagających odchudzanie (20%), wzmacniających włosy i paznokcie (19%). Wśród ankietowanych 65% stosuje suplementację, wśród nich 52% badanych zażywa 1 suplement diety, a 48% stosuje 2 lub 3 preparaty. Pod wpływem reklamy w prasie rozpoczęło stosowanie suplementacji 12% ankietowanych, a 67% badanym zdarza się kupować tego typu preparaty na dolegające im problemy zdrowotne, zamiast udać się po fachową poradę lekarza. Ponad ¾ opiniodawców uważa, że mogą stosować suplementy diety całkowicie bezpiecznie.

Wnioski. Badani chętnie stosują suplementy diety, jednym z powodów podjęcia przez nich suplementacji jest wpływ reklam umieszczanych w prasie. Respondenci mają duże zaufanie co do bezpieczeństwa suplementów diety, często stosują je bez konsultacji z lekarzem czy farmaceutą.

#### Abstract

**Introduction.** The media has a powerful influence on the audience; its power of manipulation often directs our actions and shapes our knowledge. The characteristic feature of the press that distinguishes it from other sources of information is the opportunity to go back to the previously read content. This makes it more reliable than other messages. Currently, numerous advertisements that encourage the use of multiple dietary supplements are placed in media.

**Aim.** The purpose of this study was to investigate whether and how the advertising of dietary supplements placed in popular magazines for women affects the young recipient.

**Material and methods.** The research method used was a diagnostic survey and the research technique – a questionnaire survey. The survey comprised 12 questions about the reception and the impact of advertising of dietary supplements on the respondents as well as 4 questions on demographics.

**Results.** The respondents noticed that in the press the majority of advertisements concern dietary supplements supporting weight loss (20%), or strengthening hair or nail (19%). Sixty five per cent of the respondents used supplements, including 52% of respondents taking 1 dietary supplement, and 48% using two or 3 preparations. Under the influence of advertising in the press, 12% of respondents started to use supplementation. Sixty seven per cent of respondents buy this kind of preparations for health problems, rather than refer to the doctor for expert advice. Seventy six per cent of consultees believe that dietary supplements are completely safe to use.

**Conclusions.** Respondents willingly use dietary supplements. One of the reasons for their reaching for supplementation is the effect of advertisements appearing in the press. Respondents have great confidence in the safety of dietary supplements; often use them without consulting a doctor or a pharmacist.

**Slowa kluczowe:** suplementy diety, samoleczenie, reklama, zachowania zdrowotne.

**Keywords:** dietary supplements, self-treatment, advertising, health behaviors.

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## INTRODUCTION

Varied and well balanced diet should provide all the necessary nutrients for maintaining good health. However, research shows that the ideal situation of meeting the nutritional needs of all population groups for all vitamins and minerals does not take place. In order to compensate the diet, supplements can be used [1].

Pursuant to Act of 25 August 2006 on Food Safety and Nutrition, a dietary supplement is "the food product, which aims to supplement a normal diet, which is a concentrated source of vitamins or minerals or other substances having a nutritional or another physiological effect" [2].

In view of the possible health problems in meeting nutritional needs, dietary supplements are usually suggested for children and adolescents, pregnant women, the elderly (reduced absorption of vitamins and minerals and eating less food), people using special diets such as vegetarian, slimming, etc., smokers. Supplementation is also recommended for athletes, physical workers who are tall and with high body weight [1]. However, one should keep in mind that supplements cannot replace a normal diet [3]. The best way to stay healthy and reduce the risk of disease is a varied, balanced diet containing the necessary nutrients in the right proportions as well as physical activity [4]. Being aware of certain deficiencies in our daily diet, we try to "trick" the body and instead of properly compiled diet, rest, professional prophylaxis and therapy, we provide dietary supplements, believing that they will give us health, youth, good looks and inexhaustible vitality. Producers willingly meet these desires, by filling the pharmacy shelves or grocery stores with products named in general "dietary supplements" [5].

### **AIM**

The aim of this study was to investigate the effect of advertisements of dietary supplements currently appearing in popular mass magazines on the young recipient to whom the information is addressed.

# **MATERIAL AND METHODS**

The research method used in this study was a diagnostic survey and the research technique – a questionnaire survey. The survey constructed for research contained 12 questions about the reception and impact of advertising of dietary supplements on the respondents, and 4 demographic questions. The diagnostic survey was anonymous; there were investigated 102 people between 18 and 30 years of age, including 74 women and 28 men. The study was conducted between March and October 2011 in the Lublin province. The study included students from two Lublin universities – the Medical University (Pharmacy and Public Health students), and the Catholic University of Lublin (Law and Administration students).

### RESULTS

The study was conducted among 102 respondents. Because of the differences in knowledge about supplementa-

tion resulting from the field of study, the respondents were divided into two groups. Seventy eight per cent of respondents were non-Pharmacy students (Law, Administration, Public Health), and the remaining 22% of the respondents were students of Pharmacy. The study included 72% women and 28% men. The age of the respondents ranged between 18 and 30 years, 62% of respondents were people between 21 and 25 years old, 28% between 18 and 20 years. The majority of the respondents (40%) were residents of large cities (more than 50,000 inhabitants), 35% of respondents were residents of the villages, and the remaining 25% – were the residents of small towns (up to 50,000 inhabitants).

Eighty percent of the surveyed read or browse popular magazines. Respondents most frequently cited titles of such magazines as: Your Style, Glamour, Viva, Party, Claudia and others. Sixty two per cent of respondents believe that popular magazines especially aimed at women include many advertisements of dietary supplements, 38% answered that there are advertisements but not many.

The respondents noticed that in the press majority of appearing advertisements of dietary supplements promote weight loss (20%), strengthening hair and nails (19%), analgesics (10%), preparations remedying problems with constipation (8%), preparations containing magnesium (8%). The vast majority of respondents indicated some memorized ads. Sixty-five percent of respondents used supplements, including 52% respondents taking 1 dietary supplement, and 48% using 2 or 3 supplementation preparations. The largest group of the respondents (30%) opted for the use of dietary supplements on the advice of a doctor or pharmacist, 25% of the respondents did so at the instigation of family/friend; advertising in the press affected 12% of the respondents. There is no statistically significant correlation between the subjects studied (Pharmacy and other majors not related to Pharmacy - Law, Public Administration, Public Health), and the influence of advertising in the press. However, in contrast to other fields of study, the pharmacy students reach for dietary supplements most frequently based on their knowledge acquired during their studies (Figure 1).

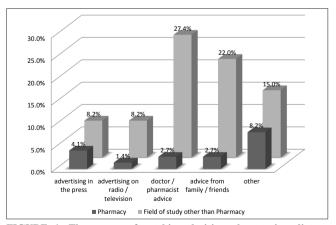


FIGURE 1. The reasons for taking decision about using dietary supplements by the respondents.

Sixty five per cent of the surveyed believe in the effectiveness of dietary supplements. Sixty seven per cent of respondents happen to buy dietary supplements to alleviate their health problems, rather than use the doctor's expert advice. Seventy six per cent of consultees believe that dietary supZdr Publ 2012;122(4) 417

plements can be used safely in any combination and in any condition, if they are taken in small amounts. Eighteen percent of respondents believe that nutritional supplements are not safe.

Students who report that dietary supplements are not safe were asked to justify their answers. Frequently the justifications were such that supplements may cause interactions, possible side effects, accumulation in the body with long-term use. All medications should be taken under medical supervision. Some respondents mentioned a lack of confidence about the safety of dietary supplements, because their marketing is poorly controlled and they are produced in order to obtain not health but financial benefits.

Comparison of responses to the question about the safety of the free use of supplements, depending on the studied major in Pharmacy or not related to Pharmacy, showed no significant relationship, Pearson  $\chi^2$ : 0.308845 (Figure 2).

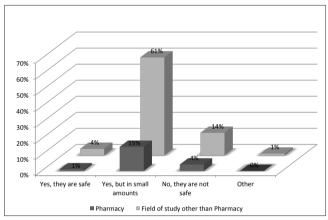


FIGURE 2. Respondents' opinions on the safety of dietary supplements.

### **DISCUSSION**

The development of the pharmaceutical industry, easy access to the preparations and medicines available without a prescription, the requirement of our times when we live very fast and the access to specialized medical care is not relatively easy, have made self-medication very popular. "Self-treatment phenomenon has been known for years, but recently has substantially been intensified. (...) The essence of self-treatment is a conscious, intelligent, based on knowledge and experience action taken to reduce the noticeable health problems. Self-treatment also includes the use of dietary supplements" [6]. It is therefore necessary to assess the extent to which our society is ready to self-treating, and how we gain information about self-treatment procedures [7].

Important sources of dissemination of all kinds of messages are the media; information on dietary supplements in the media is distributed mainly in the form of advertising. Knowledge of the supplements presented in colorful commercials is much simpler and not necessarily true. Often "doctor", "pharmacist" or other person worthy of public trust encourage the use of the product [5,8]. The purpose of this practice is to create in the recipient the impression that if it is recommended by an authority in the field, that product must be efficient and at the same time safe. The results show that advertising influences 12% of young consumers.

Some of the respondents are aware of the possible side effects of uncontrolled supplementation. Their concerns were justified, among other things by too simple and too poorly controlled marketing of supplements. The pharmaceutical market is beset by numerous herbal preparations on the status of dietary supplements that contain the same ingredients as herbal medicines only in smaller quantities. It is a practice to reduce the dosage and illicit formulation of indications in order to avoid a long, costly process of drug registration and give the status of a dietary supplement product. These activities are illegal, because the products containing plant substances with recognized therapeutic effect should be registered as medicines. However, the most worrying is the fact of confusing the status of these products, not only by patients but also by the doctors or pharmacists. In some pharmacies, supplements are placed on one shelf with OTC products \*according to their recommendations. (...) This suggests a clear status of dietary supplements and medicinal products. (...) The labeling of supplements rarely has contraindications (as opposed to medicinal products). This may suggest that supplements are better than drugs [8].

"Acknowledging dietary supplements on equal basis with drugs is ambiguous for drug distributors, pharmacists, physicians, and patients. It may result in the inhibition of the development of the herbal and drug industry, lack of incentive to invest in research, further abuse in advertising supplements, especially while exposing patients' health to risks" [9]

A large group of doctors and pharmacists object to advertise dietary supplements and medicines available without a prescription. When the respondents were asked if while watching advertising of dietary supplements they have the impression that they are completely safe, they replied affirmative (100%). The majority of respondents (76%) believe that dietary supplements are safe as long as they are used in small amounts. Sixty seven per cent of respondents happen to buy dietary supplements for their health problems, instead of using the doctor's expert advice. "A large group of drugs approved for the so-called OTC\*1 sale, give the confidence among a large group of patients about their absolute safety" [10].

It is important that the decision to take dietary supplements as a way to supplement the daily diet, medication support or prevention, should be consulted with a doctor, because in many cases, supplements are used unnecessarily, and in some cases can cause side effects [4]. The most dangerous element in making independent decision to self-treating by the patient is ignorance between the causes and the symptoms of the disease [10]. The possibility of uncontrolled use by patients of products masking the symptoms of the disease, results in a delay in the diagnosis and treatment of an illness. Hair loss, upset stomach, or problems with falling asleep, are symptoms of improper functioning of the body. The idea is to treat the causes of disease, not just the symptoms of weakness [10].

Another hazard resulting from the uncontrolled use of supplementation is social ignorance regarding the possibility of the occurrence of the interaction between dietary supplements and food consumed and/or used drugs (both

<sup>1\*</sup> a product sold without prescription (Over The Counter)

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the prescribed and OTC). "The consequences of clinical interactions are very different, from the minor, e.g. slightly reduced performance to very dangerous" [11].

An example of harmful supplementation complications may be a risk of developing malignancies (cancer of the colon, breast tumor) due to the use of folic acid [4]. The problem consists in the fact that a large part of the population does not inform doctors about taking supplementation, because they believe this information is negligible, not related to prescribed drugs. "According to the Office for Registration of Medicinal Products, recently there has been an increase in the number of reported adverse events related to the improper use of OTC drugs and/or dietary supplements – now the figure is about 3.5 thousand reports per year and the value exceeds by 16% the value from two years ago"[6].

# **CONCLUSIONS**

- 1. Respondents willingly use dietary supplements. The impact of adverts placed in the press is one of the reasons for taking supplementation by them.
- 2. Respondents have great confidence in the safety of dietary supplements and often use them without consulting a doctor or pharmacist.
- 3. Some of the respondents are concerned by too poor control, and at the same time ease of launching new dietary supplements in the market. There is a risk that the products are not sufficiently tested and supplements may cause delayed in time side effects.

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