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# THE EFFECT OF MEDIA CHANNELS ON SALES OF OVER-THE-COUNTER DRUGS AND FOOD SUPPLEMENTS

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## Abstract

Looking after one's health belongs to one of several natural activities of every human being and is an important part of their life. Healthcare and the system of health policy should aid in this regard. Their function is to contribute to the quality of life as well as to support individual and community protection of citizens' health by taking action regarding public health and providing health care. The pharmaceutical industry is an inseparable part of functioning of such a system. It is an industry which researches, develops, produces and supplies preparations for protection and maintenance of health. Its main products are drugs, which play a fundamental role in the system of healthcare. Generally, we divide them into two groups - those subject to prescription and the so called over-the-counter drugs. The way of dispensing and classification of drugs is determined by the State Institute for Drug Control based on assessment of several criteria. Another inseparable part of the pharmaceuticals market is represented by food supplements, which, in contrast to drugs, are classified as foodstuffs. Both groups are integral to healthcare and health promotion. Slovak legislation allows their promotion aimed at general public (in contrast to prescription drugs). As a result, a lot of advertisements offering various products of this type can be seen in media. This contribution analyses the effect of particular media channels on their sales and compares the effectiveness of advertising in these particular types of media.

*Keywords:* media, advertising, over-the-counter drugs, food supplements

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## 1. Introduction

Advertising is generally defined as presentation of products in all forms with the aim of strengthening their position on the market. As stated by Solík, from the recipient's point of view as well as from the viewpoint of the advertiser, we do not consider the creative over-interpretation by Jonathan Culler or entering a spiral of Pierce's infinite semiosis as appropriate parts of analyzing

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the effects of advertisements [1]. According to Čábyová, its principles of functioning predestine it to the 'meaning conservatism' – the most important thing is to affect, wilfully or subconsciously, the shopping behaviour or subconscious opinions on a brand, ideally in the way chosen in advance, by producers themselves [2]. Not to speak about stereotypes, expectations and psychological dispositions of the observer [3].

As stated by Petranová and Vrabec, the goal of advertising is to persuade, acquire, evaluate, influence – in other words, to form consciousness of the recipients, to strengthen their need to buy a certain product or service. As a kind of persuasion, advertising is affected by verbal, non-verbal, word-forming, syntactic and lexical factors, whose influence is individual and varies from person to person. It uses also a lot of persuasive techniques [4].

Forms and means of advertising have changed during the centuries along with the development of Science and technology. The most used of these were replaced by more technically advanced equivalents [5]. This fact affected advertising itself [6].

In connection with marketing communication, pharmaceutical companies operate in a specific environment which is delimited by several laws and regulations. A lot of restrictions and tightened regulatory mechanisms in the area of marketing and promotion of sales of pharmaceuticals are predominantly determined by the fact that they not only help prevent diseases and improve the health of population but also entail some risk.

## **2. The difference between over-the-counter drugs and food supplements**

A common feature of over-the-counter drugs and food supplements is that they are available without the need of a prescription. Consumers and patients often do not realize the difference between drugs and food supplements [7]. They often confuse these concepts or misinterpret them. The difference between drugs and food supplements is nevertheless significant.

In general, drugs can be termed as the basic product in the pharmaceutical industry. The uniqueness of these products lies in the purpose for which they are made. Drugs play a crucial role in prevention, improvement and treatment of diseases. Thanks to this particular feature of individuality they become a specific type of goods.

A drug is a medicinal product or a combination of medicinal products and substances which have been modified by a technological process into a pharmaceutical form intended for the prevention, diagnosing and treatment of diseases or for modification of physiological functions [Act no. 362/2011 on drugs and medical instruments and on changes and amendments to certain acts, paragraph 1, article 7]. Depending on the way of dispensing, drugs are divided into those subject to medical prescription and those whose dispensing is not subject to medical prescription (over-the-counter drugs). The classification of drugs based on the way of dispensing is determined by the State Institute for Drug Control after assessing several criteria.

In case of drugs, the manufacturer must have an authorisation for their production, they must meet the criteria for a good manufacturing practice; the process ensures a control of starting materials, inter-operational and final inspection. In addition, there is the need to ensure controlled distribution and dispensing by an entity, which must possess a special authorisation for pharmaceutical activities.

Food supplements are types of foodstuffs intended for supplement of diet, which are concentrated sources of nutrients such as vitamins and minerals or other substances with a nutritional or physiological effect, separately or in combination. They are marketed in dose form such as capsules, tablets, and pills and other similar forms, powder packets, liquid filled ampoules, bottles with a drop dispenser and all other similar forms of liquids and powders designed in a way which enables them to be taken in small measured unit quantities [Act no. 608/2/2004 – 100].

With food supplements, based on data gained through proper analysis, the manufacturer states the average nutritive value or the amount of substances with a nutritional or physiological effect. The Public Health Authority, which issues authorisations for marketing food supplements, does not explicitly oversee the quality and quantity specifications. Although the quality of production might meet similar criteria as in the production of drugs, it is not subject to state control.

### **3. Legal framework governing advertising of drugs and food supplements**

Owing to the specific feature of drugs and the fact that they are classified as goods of specific nature, advertising in this area is strictly regulated. The only permitted promotion and advertising toward the general public is the promotion and advertising of over-the-counter drugs, i.e. the drugs not subject to medical prescription. The conditions are governed by Act no. 147/2001 Coll. on advertising and on amendment of certain laws and Act no. 308/2000 Coll. on broadcasting and retransmission and on the amendment of Act no. 195/2000 Coll. on telecommunications. Supervision over advertising of drugs is exercised by the State Institute for Drug Control.

The Act on advertising governs the general requirements for advertising and requirements for advertising of drugs which are registered in the Slovak Republic and do not contain any psychotropic substances and preparations whose dispensing is not subject to medical prescription. Only provisions of paragraphs 1–4 of the act on advertising relate to medical supplies and food supplements.

Because of the nature of advertising, the act distinguishes advertising of drugs aimed at lay people and medical professionals, with different requirements regarding the promotion. However, a general rule which applies to advertising of drugs is that there must be a concordance with the information stated in the summary of medicinal product characteristics, which includes all details necessary for the right choice of drug, determination whether the drug is suitable

for the particular patient, the assessment of risks and adverse reactions, interaction with other medicaments, determination of the correct dosage etc. Moreover, advertising must promote rational use of the drug by objective informing without exaggerating its effects, it must not be deceptive, surreptitious and must not exploit the consumer's trust, their lack of experience and knowledge.

The act prohibits advertising of drugs: a) which are not registered in the Slovak Republic; b) contain narcotics, psychotropic materials and preparations; c) whose dispensations is subject to medical prescription or veterinary prescription; d) whose dispensation is not subject to medical prescription, however they are paid based on health insurance under a special regulation; e) which mentions the effects of drugs in treatment of tuberculosis, contagious venereal diseases, serious infectious diseases, tumorous diseases, chronic insomnia, metabolism malfunction diseases and psychic diseases [Act no. 147/2001 Coll. on advertising and on amendment of certain laws, paragraph 8, article 1-5].

Advertising of drugs must not be convincing that: a) medical examination or medical interventions are unnecessary; b) one drug is more effective or as effective as another drug or that the drug does not have any side effects; c) the health of a person might improve after taking the drug; d) the health of a person might deteriorate if they do not use the drug; this prohibition does not apply to mass vaccinations [Act no. 147/2001 Coll. on advertising and on amendment of certain laws, paragraph 8, article 1-5].

Furthermore, advertising of drugs must not: a) compare drugs with foodstuffs or cosmetic products; b) suggest that safety or the effect of a drug results only from the use of a natural substance, unless it is proved by experts; c) offer diagnosing or determining of treatment without medical examination with recommendation to use a particular drug; d) state the effects of the drug with reference to the effects of the drug on other persons; e) contain data about drug registration; f) contain recommendation of scientists, physicians or famous personalities; g) use excessive or terrifying presentation of human organism changes resulting from disease or damage and depict the effect of the drug in human organism with respect to these changes; h) be designed for a minor [Act no. 147/2001 Coll. on advertising and on amendment of certain laws, paragraph 8, article 1-5].

Advertising must contain: a) the name of the drug and the name of the medicament it contains; b) necessary information about the correct use; c) explicit and clear notice to read carefully the instruction about the correct use of the drug comprised in written information for users of medications, enclosed in medical products [Act no. 147/2001 Coll. on advertising and on amendment of certain laws, paragraph 8, article 1-5].

Similar restrictions and conditions for transmission of advertisements in electronic media (in radio and on television) are governed by the act on broadcasting and retransmission, which prohibits broadcasting of advertising

for medical products containing narcotics, psychotropic or other addictive substances.

Television advertising for medical products must be discernible, impartial, truthful and verifiable and meet the requirement of protection of an individual from damage. Advertising shall contain: a) definite and understandable recommendation for careful reading of instructions for correct application of medical products comprised in written information for users of medications, enclosed in medical products; b) recommendation to ask a person authorized to prescribe or to dispense medications for advice about application of medical products [Act no. 308/2000 Coll. on broadcasting and retransmission and on the amendment of Act no.195/2000 Coll. on telecommunications, paragraph 33, article 4-5].

Television advertising for medical products also must not: a) be aimed at minors, b) compare medications with foodstuffs or cosmetic products, c) promote the effect of medications by referring to results achieved in particular persons, d) contain recommendations by scientists, doctors or famous people, whose popularity could encourage the use of the drug [Act no. 308/2000 Coll. on broadcasting and retransmission and on the amendment of Act no.195/2000 Coll. on telecommunications, paragraph 33, article 4-5].

Pursuant to relevant provisions of the Act no. 362/2011 on drugs and medical instruments and on changes and amendments to certain acts, holders of manufacturing, registration and wholesale authorisations are obliged to inform the Ministry of Health about the expenditure on marketing, promotion and non-monetary benefits granted to the health care provider. At the same time, they are obliged to inform the National Health Information Centre about health professionals who have taken part in professional, scientific and other educational and training events financed by the disseminator of advertising.

Advertising of food supplements is governed by the general provisions of the act on advertising as well as the Regulation (EC) no. 1924/2006 of the European Parliament and of the Council on nutrition and health claims made on foods which lays down the harmonized rules for using nutrition and health claims. These rules cut across the area of promotion and presentation of food supplements by ensuring that any claim stated on foodstuffs in the EU is clear, accurate and well-founded.

The reason why the regulation stated above was implemented was that there had been a wide variety of claims used in the labelling and advertising of foodstuffs in some Member States relating to substances that have not been shown to be beneficial or for which at present there is not sufficient scientific agreement. Therefore, the competent authorities decided to ensure that the substances for which a claim is made have been shown to have a beneficial nutritional or physiological effect. The regulation relates to voluntarily made nutrition and health claims in commercial communication toward the end consumer in labelling, presentation and advertising of foodstuffs including food supplements, as well as trademarks and other brand names which may be construed as nutrition or health claims. These claims made in the advertising of

foodstuffs and food supplements must not: a) be false, ambiguous or misleading; b) give rise to doubt about the safety and/or the nutritional adequacy of other foods; c) encourage or condone excess consumption of a food; d) refer to changes in bodily functions which could give rise to or exploit fear in the consumer, either textually or through pictorial, graphic or symbolic representations; e) state, suggest or imply that a balanced and varied diet cannot provide appropriate quantities of nutrients in general; f) state any reference to the rate or amount of weight loss; g) relate to prevention and treatment [Regulation (EC) no. 1924/2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods].

Health claims can be made only providing that they comply with the conditions for their use at the same respecting the so called restrictions, where the requirements for use mean the content of a certain amount of certain constituent in the daily dose or it is clearly stated what characteristic each constituent has. Restriction means further specification of foodstuffs which must not bear a claim or whom it is not intended for. Restrictions are part of the list of authorised health claims.

Restrictions may apply to a particular constituent, nutrient or food, not the whole product. At the moment of stating the health claim in the labelling (or advertising and presentation) of a food/food supplement, it is necessary to state other mandatory information such as information about the importance of a varied and balanced diet and healthy lifestyle; the quantity of the food and pattern of consumption required to obtain the claimed beneficial effect; a statement about persons who should avoid using the food; a warning for products that are likely to present a health risk if consumed to excess.

Reduction of disease risk claims must also bear a statement indicating that the disease to which the claim is referring has multiple risk factors and that altering one of these risk factors may or may not have a beneficial effect. The regulation also prohibits any health claims which: a) suggest that health could be affected by not eating the food; b) make reference to the rate and amount of weight loss; c) make reference to recommendations of individual doctors [Regulation (EC) no. 1924/2006 of the European Parliament and of the Council].

The compliance of labelling of food supplements is supervised by regional public health authorities.

#### **4. Expenditures of pharmaceutical companies on advertising of over-the-counter drugs and food supplements**

According to the Association of Innovative Pharmaceutical Industry (AIFP), its member companies spent a total of 15,659,201.69€ in 2014 [<http://www.aifp.sk/sk/novinky-tlacove-spravy/6/farmaceuticke-firmy-zverejnili-marketingove-vydavky-za-rok-2014>]. This sum is the aggregate expenditure of 26 pharmaceutical companies, which represents a 21% decrease from the previous year.

With regards to media advertising, pharmaceutical companies invested most funds in the category of over-the-counter drugs for alleviation or elimination of flu and cold symptoms, as shown in the monitoring of Ad Intelligence [Act no. 362/2011 on drugs and medical instruments and on changes and amendments to certain acts, paragraph 1, article 7]. The most frequently used type of media was television. According to a monitoring of TNS Slovakia, in 2014, pharmaceutical companies invested 98% of their overall advertising expenditures in TV advertising, with print media and radio advertising accounting for 1% each. In 2014, television channels broadcast nearly 27 thousand advertising spots for over-the-counter drugs alleviating the flu and cold symptoms. The volume of advertising space (the total length of broadcast advertising spots) which the television provided for advertising in this category was hours of advertising broadcast. As regards print media, there were 60 advertisements on 30 pages which is a 37% decrease from the previous year. Finally, radios broadcast just under 700 advertising spots in the total length of 4.5 hours [<http://www.tns-global.sk/informacie-pre-vas/tlacove-spravu/reklama-na-lieky-proti-chripke-prechladnutiu-0>].

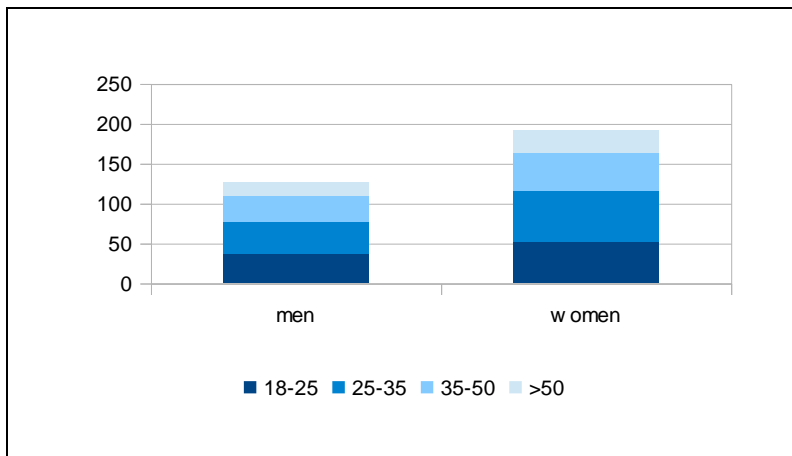
According to TNS Slovakia, ten biggest advertisers of over-the-counter drugs invested 77% of the overall advertising expenditures of this category. In this way, they invested 12% more funds than the previous year. The biggest advertiser was Boehringer Ingelheim, which increased its expenditures by 30% year on year. Coldrex was the most frequently advertised brand in this category, followed by Mucosolvan and Flavamed [<http://www.tns-global.sk/informacie-pre-vas/tlacove-spravu/reklama-na-lieky-proti-chripke-prechladnutiu-0>].

## **5. Effect of media channels on consumer behaviour in the area of OTC drugs and food supplements**

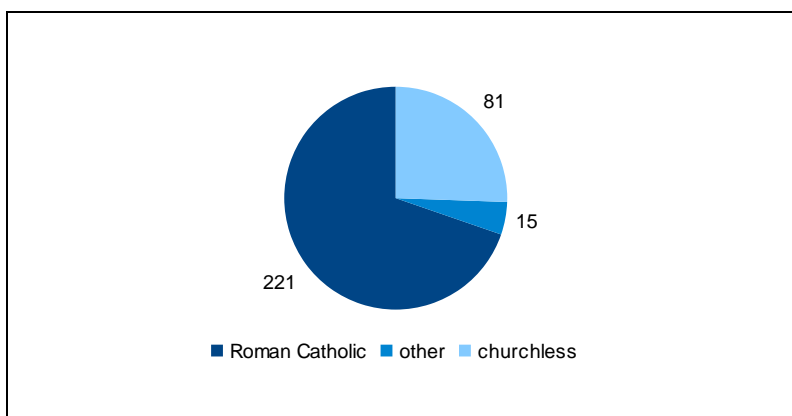
According to the study titled 'Key factors and the role of the pharmacist in the selection of drug' carried out by GfK in 2012, apart from doctors, providers of pharmaceutical service, too, play a significant role in the selection of a particular drug [[http://www.gfk.com/sk/documents/gfk\\_rx\\_lieky\\_na\\_lekarsky\\_predpis\\_sk.pdf](http://www.gfk.com/sk/documents/gfk_rx_lieky_na_lekarsky_predpis_sk.pdf)].

These findings served as an impetus for conducting our own research, whose aim was to find out the extent to which media advertising affects the sales of over-the-counter drugs and food supplements. The collection of data was carried out between 2<sup>nd</sup> March and 15<sup>th</sup> April 2015 through electronic and written survey on a sample of 317 respondents at the age of 18-65. The structure of respondents is shown in Figures 1 and 2.

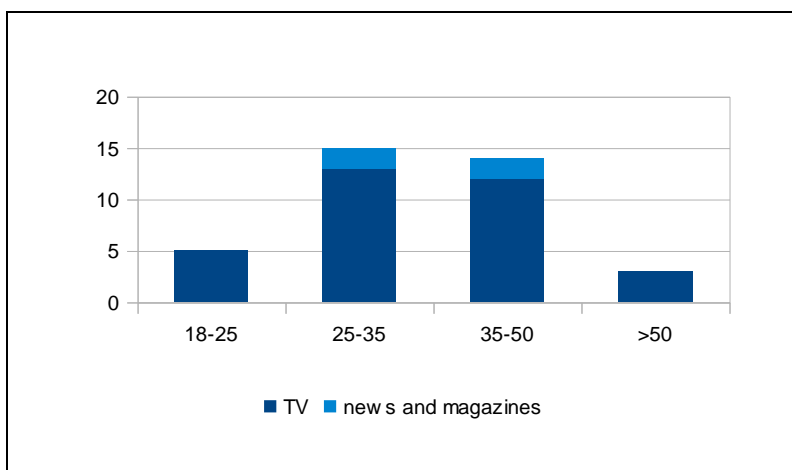
The results of the survey suggest that 95% of the respondents had bought over-the-counter drugs for themselves or their acquaintance in the recent past. In the case of food supplements, it was 74% of the respondents. When buying over-the-counter drugs, 52% of the respondents asked for a particular brand of drug at their own discretion. The remaining 47.5% consulted the choice with the pharmacist.



**Figure 1.** Structure of respondents, N = 317 respondents (men – 126, women - 191).

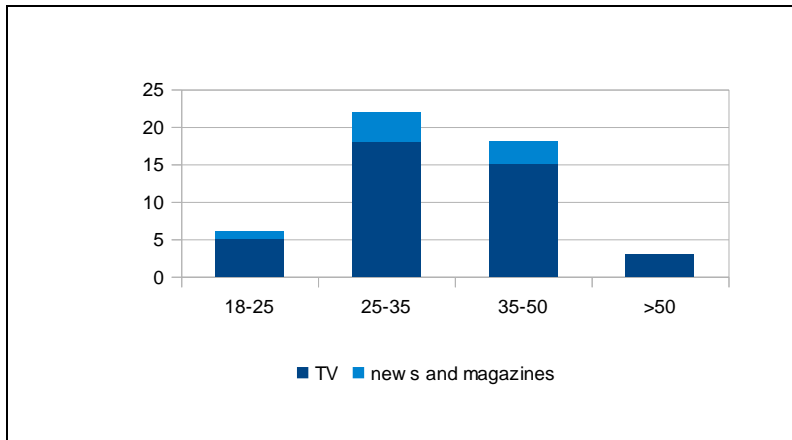


**Figure 2.** Structure of respondents based on their religion, N = 317 respondents.

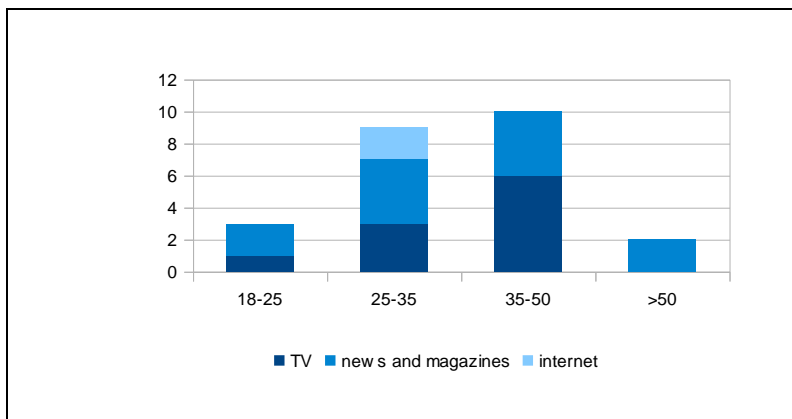


**Figure 3.** Effect of media on the choice of particular brand of OTC drug – men, N = 37 respondents.

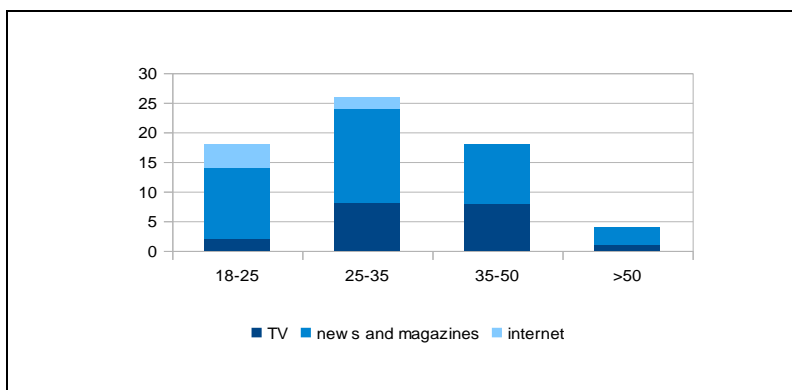




**Figure 4.** Effect of media on the choice of particular brand of OTC drug – women, N = 49 respondents.



**Figure 5.** Effect of media on the choice of particular brand of food supplement – men, N = 24 respondents.



**Figure 6.** Influence of media on the choice of particular brand of food supplement – women, N = 24 respondents.

When choosing the particular brand of over-the-counter drugs, the respondents based their decision on the information which they had obtained from media (54.4%) as well as on their acquaintance's recommendation (45.6%). Men (58.7%) turned out to be more influenced by the information from media than women (51.6%). In both cases, the respondents who were the most influenced by information from the media were at the age of 35-50 (65.2% of men and 66.6% of women).

Television turned out to dominate among the other types of media with 86% of respondents basing their choice of particular over-the-counter drug on information there from. Figures 3 and 4 show the results in more detail.

When purchasing food supplements, 59.3% of respondents asked for a particular brand with the remaining 40.7% consulting the choice of the brand with the pharmacist. In case of buying their own choice of particular brand of food supplement (similarly to OTC drugs), 64.3% of the respondents decided based on information gained through media, whereas the remaining 35.7% decided based on their acquaintance's recommendation. When it comes to media influence, women tended to be more influenced (66.6%) than men (58.5%). In both cases the respondents who were most influenced by the information from media were in 25-35 age group (69.2% of men and 65% of women). Print media dominated among the other types of media, with 58.9% of all respondents basing their decision to buy a particular brand thereon. The results are shown in more detail in Figures 5 and 6.

Finally, an interesting finding was that 89.9% of respondents (N = 142) consulted the choice of a particular OTC drug with a pharmacist, although they had been convinced about their choice before. All of the respondents accepted the recommendation of the pharmacist also in case the pharmacist recommended different drug from the one they had originally intended to buy.

In case of food supplements, 86.9% of respondents (N = 205) consulted the pharmacist about the choice of particular brand also in case they had decided about their choice before. All respondents accepted the recommendation of the pharmacist.

## 6. Conclusions

As highlighted in the survey, media channels influences consumers when choosing a particular brand of over-the-counter drugs and food supplement only to a limited extent. It plays an important role when the so called purchase intention and primary preferences of the consumer are formed, which was confirmed by the fact that more than a half of respondents planned to buy a particular brand of over-the-counter drug at their own discretion. In case of food supplements, the effect of media advertising on consumers was manifested somewhat more significantly.

When choosing an over-the-counter drug, consumers were most influenced by TV advertising. Print media advertising had only limited effect on forming the purchase intention. Radio but also internet advertising showed to be ineffective.

On the contrary, when it comes to food supplements, consumers were most influenced by print media advertising, followed by TV advertising and internet advertising. Radio advertising showed to be ineffective as in the case of OTC drugs.

It turns out that media advertising influenced consumers most in the case of over-the-counter drugs against pain, influenza and cold. Media advertising influenced the respondents most in the case of food supplements intended for boosting and strengthening immunity, weight loss and joint support supplements. The influence of religion did not prove to be of any significance in any of the researched areas.

Interestingly, the most crucial influence on the purchase decision was exercised by the pharmacist, whose advice and recommendations were trusted by respondents of all age categories. The respondents changed their purchase decisions when they were recommended a different brand of OTC drug or food supplement.

Taking into consideration the specific nature of pharmaceutical products and consumer behaviour when buying over-the-counter drugs and food supplements, it can be expected that the current trend of decreasing spending on media advertising and focusing on experts will continue in this segment. In this regard, we see the opportunity for narrowly specialized media, mainly print media aimed at medical professionals.

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