

Safe consumption of dietary supplements containing plant materials among the youngest and oldest Polish consumers.



Justyna Baraniak, Małgorzata Kania-Dobrowolska

Department of Pharmacology and Phytochemistry, Institute of Natural Fibres and Medicinal Plants - National Research Institute
Kolejowa 2 Str., 62-064 Plewiska, Poland; e-mail: justyna.baraniak@iwnirz.pl, malgorzata.kania@iwnirz.pl



Introduction: The market for the sale of dietary supplements is an important element in the global sales of all food products. Dietary supplements have been very popular for many years among various groups of consumers, including the elderly and parents who give their children these products for various reasons. In many outlets, you can find plenty of dietary supplements dedicated to children. These are most often vitamin and mineral preparations (in the form of lollipops, candies, jellies, syrups, chewing gums), as well as products containing herbal substances or other compounds. Older people, due to various health ailments, take medications prescribed by a doctor, and also use various dietary supplements, very often without sufficient knowledge of their composition and possible side effects. This leads to dangerous polypragmasia.

Aim, materials and methods: The aim of the study was to analyze the use of dietary supplements provided by parents and the study of the awareness of the risks associated with supplements' intake among children from primary school and kindergarten. The purpose of the study was also to analyze the use of dietary supplements taken by the elderly and investigate their awareness of the risks associated with taking such products.

The study was conducted by questionnaire method among 316 parents/legal guardians of children attending elementary schools and kindergarten and by questionnaire method among 302 elderly people in Poland. Additionally, dietary supplements offered at various retail outlets were reviewed.

RESULTS		
Selected Questions Asked	Respondents (elderly)	Respondents (parents)
questionnaire was completed by	302 (217 F, 85 M)	316 (279 F, 37 M)
use/administration of dietary supplements declared	86%	80%
correct definition of a dietary supplement was given by	38%	73,4%
statement about recognizing any risks from consuming dietary supplements	21%	31,6%
declaration on recognition of health risks of consuming several products at the same time	15%	25,5%

Vitamin and mineral supplements predominated among the supplements given to children.

Dietary supplements aimed at the elderly usually contained the following plant parts: ginseng root, ginkgo biloba leaf, turmeric rhizome, peppermint extract or leaf, dill fruit extract, anise fruit extract, artichoke leaf, aloe vera juice, rosehip extract, hawthorn blossom or hawthorn fruit extract, soy lecithin.



Conclusion: The survey shows that the vast majority of parents/legal guardians give their children dietary supplements. There is a need to educate parents/legal guardians about the use of supplements and the risks associated with them. It is particularly dangerous to give vitamin preparations to young children, since many foods intended for their daily nutrition are additionally enriched with vitamins and minerals. The combination of such amounts of vitamins can lead to hypervitaminosis.

The main problem with dietary supplements for seniors is the difficulty in determining a safe dose of the active ingredients used and potential interactions with medications that seniors take regularly due to multi-disease.

A common problem with dietary supplements, regardless of the consumer group for which they are intended, is the poor quality of many products, adulteration of the composition or the presence of dangerous or legally restricted substances.

It is extremely important to continuously educate these vulnerable groups of consumers about the dangers of uncontrolled consumption of dietary supplements.

