

Nutritional intervention in community pharmacies through the use of a decision support system (DSS): a novel approach to Pharmaceutical care.

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Background Community pharmacies are an integral part of primary health care. Pharmacist can play a key role in the nutritional care of patients. Given the extensive network of community pharmacies in Greece, they can be considered an ideal place for the health promotion and disease prevention.

Purpose The aim of this pilot intervention study was to evaluate the implementation of a nutritional assessment screening tool in a community pharmacy setting and the patients' adherence to the nutrition advice given.

Method A Decision Support System (DSS) that provides nutritional and physical activity information was developed by a team of scientists and implemented for pilot testing in a community pharmacy from April 2018 to July 2018. The counseling provided to patients involved nutritional, medical and physical screening - assessment, setting and monitoring goals, daily nutritional needs, and sample diets. The community pharmacist was trained by registered dietitians and clinical pharmacists, who had checked the reliability and repeatability of the DSS before. Goals were divided in 4 categories: weight loss, weight maintenance, weight restoration and growth assessment for children and one month later. Their progress was monitored and recorded by the pharmacist. Stable patients of the pharmacy were selected, provided they had prescriptions from the Greek National Health System.

Findings Overall, 34 individuals were recruited, 8 children and 26 adults. Growth assessment was checked for the 8 children, where 5 presented normal growth patterns and 3 growth concerns. The latter were further referred to a pediatrician. 18 adults had as a goal to lose weight, 7 to maintain a healthy weight and 1 to restore weight respectively. The main outcome measured in adults was goal achievement, as it represented the patients' adherence to the pharmacist's advisory role. 54% of the adult participants came for a second measurement, of whom 79% achieved their initial goal. Furthermore, the physical activity screening revealed that only 15% of adults were physically active.

Conclusion Pharmacists' provision of pharmaceutical and nutritional care in primary settings can be assisted with a decision Support System since it serves as tool to detect, evaluate and solve nutritional health related problems. A DSS system assists community pharmacists in identifying the methodology to demonstrate and measure success and outcomes. As community pharmacies are open to changes and technological tools become more available they are able to successfully involve and promote nutritional health by providing evidence based information on nutrition. Pharmacist within the community setting can provide the framework which will assist patient to trigger their needs for better nutrition intake and achieve their nutritional goals with the use of a decision support system. This was the preliminary result of a pilot study.