



## Evaluation of Pharmacodynamic Interactions between Medicinal Plants and Drugs in Patients with Chronic Diseases in South Brazil

César A.M. CAMPOS <sup>1</sup>, Diovana R. MINETO <sup>2</sup>, Juliana R. RAASCH <sup>3</sup>,  
Edna S. SUYENAGA <sup>4</sup>, Magda S. PERASSOLO <sup>4</sup>

<sup>1</sup> Graduate Program in Toxicology and Analytical Toxicology,

<sup>2</sup> Undergraduate student of Pharmacy,

<sup>3</sup> MSc. in Toxicology and Analytical Toxicology,

<sup>4</sup> Professor of the Department of Pharmacy, Feevale University, Novo Hamburgo, RS, Brazil

**SUMMARY.** The use of medicinal plants is a longstanding practice in several civilizations. However, with the advances in conventional medicine the use of medicinal plants has been interfering with drug therapy. In view of this interaction, the present study evaluated through questionnaires 58 chronically ill patients users of medicinal plants in south Brazil. The interactions between drugs and medicinal plants were compiled from literature data. There were 9 types of possible pharmacodynamic interactions that occurred 85 times among patients. The most commonly used plants were *Cymbopogon citratus* and *Matricaria recutita*, interacting mainly with central nervous system targeting drugs, antihypertensives and anticoagulants possibly leading to increased sedation and coagulation disorders.

**RESUMEN.** El uso de plantas medicinales es una práctica antigua en varias civilizaciones. Sin embargo, con los avances en la medicina convencional el uso de plantas medicinales ha estado interfiriendo con la terapia con medicamentos. En vista de esta interacción, el presente estudio evaluó mediante cuestionarios a 58 pacientes con enfermedades crónicas usuarios de plantas medicinales en el sur de Brasil. Las interacciones entre medicamentos y plantas medicinales se compilaron a partir de datos de la literatura. Hubo 9 tipos de posibles interacciones farmacodinámicas que ocurrieron 85 veces entre los pacientes. Las plantas más comúnmente utilizadas fueron *Cymbopogon citratus* y *Matricaria recutita*, que interactúan principalmente con fármacos dirigidos contra el sistema nervioso central, antihipertensivos y anticoagulantes. que posiblemente conducen a un aumento de la sedación y trastornos de la coagulación.

**KEY WORDS:** chronic disease, drug interactions, medicinal plants, phytotherapy.

\* Author to whom correspondence should be addressed. E-mail: magdaperassolo@feevale.br