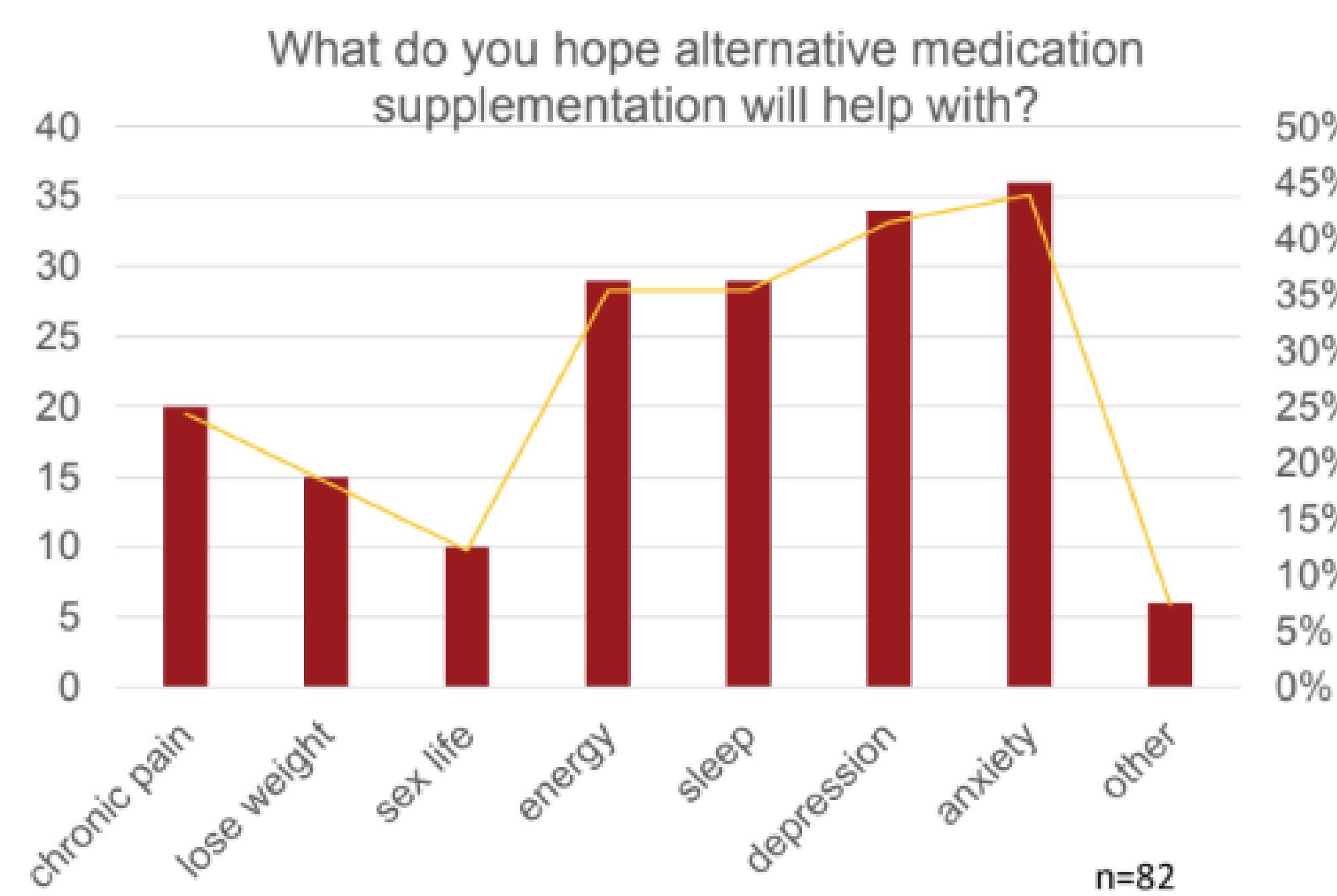


Background/Purpose

This study was done in conjunction with a study done by Dr. Erdelyan, a PGY-4 Psychiatry Resident at LAGMC, who found that 54% of their patient population used at least 1 type of complementary and alternative medicine. Of those medications, the most common uses were anxiety, depression, and sleep of which Kava, St. John's Wort, and Valerian Root are the most popular herbal supplements used. Those substances are often used in place of traditional pharmaceuticals due to perceived safety however that is not entirely true. Which leads to worsened patient outcomes. The purpose of this study is to further analyze the commonality and severity of those adverse effects.

Graph 1. Patient Reported Uses for Alternative Medication Supplementation at LAGMC (Erdelyan, 2023)



Objectives

- Evaluate the most common interactions between psychotropic medications and Kava, St. John's Wort, and Valerian Root
- Bring awareness to the possibility of clinically significant interactions between herbal supplements and psychotropic medications

Methods

This study is a literature review which used **Pubmed** as its primary research database. The following MeSH search was used:

- ("Valerian"[Mesh] OR "Hypericum"[Mesh] OR "Kava"[Mesh]) AND "Herb-Drug Interactions"[Mesh]

This search yielded **166 articles** which were narrowed down according to the criteria below:

Inclusion Criteria:

- Kava, St. John's Wort, or Valerian Root human consumption
- Concomitant psychotropic medication use

Exclusion Criteria:

- In vitro studies
- Interactions with non-psychotropic medications
- Studies with non-human test subjects
- Herbal supplements other than Kava, St. John's Wort, or Valerian Root

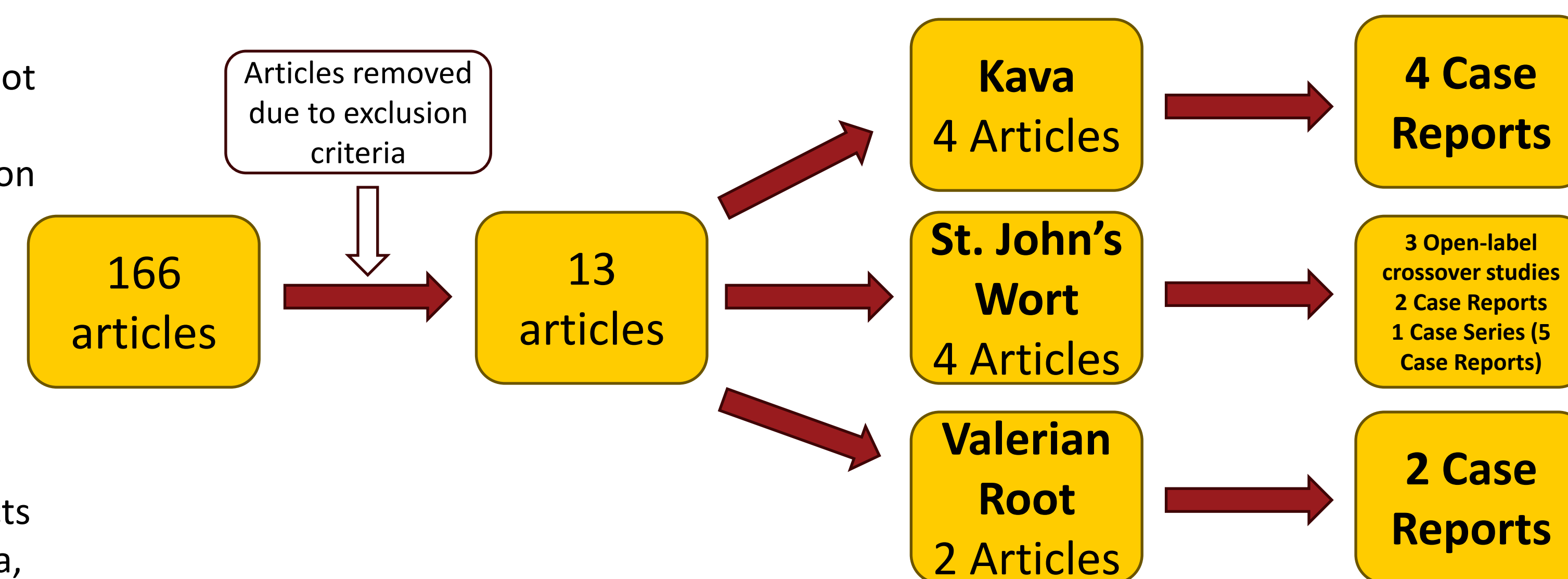
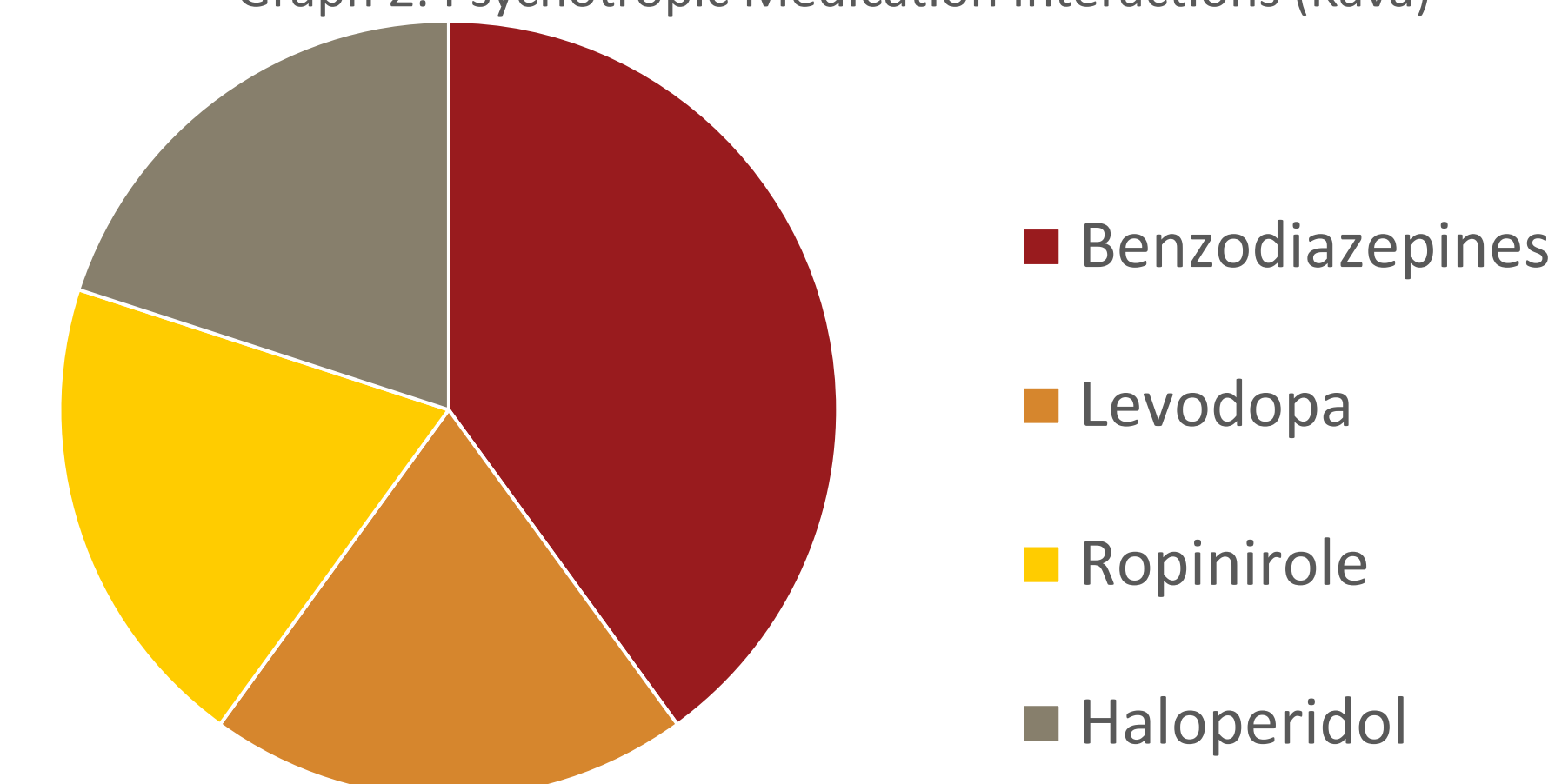


Figure 1. Breakdown of Article Search

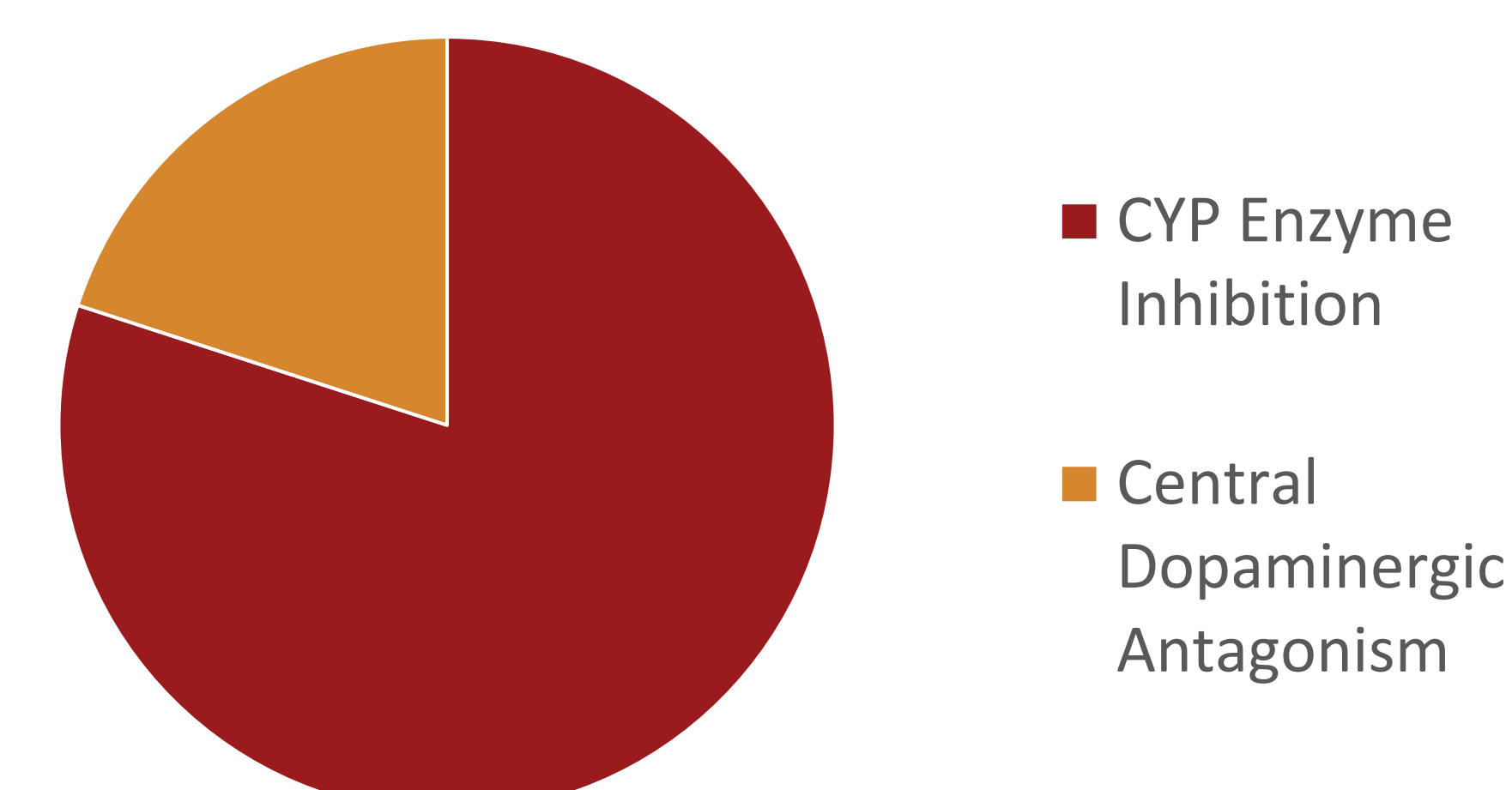
Results

Kava

Graph 2. Psychotropic Medication Interactions (Kava)

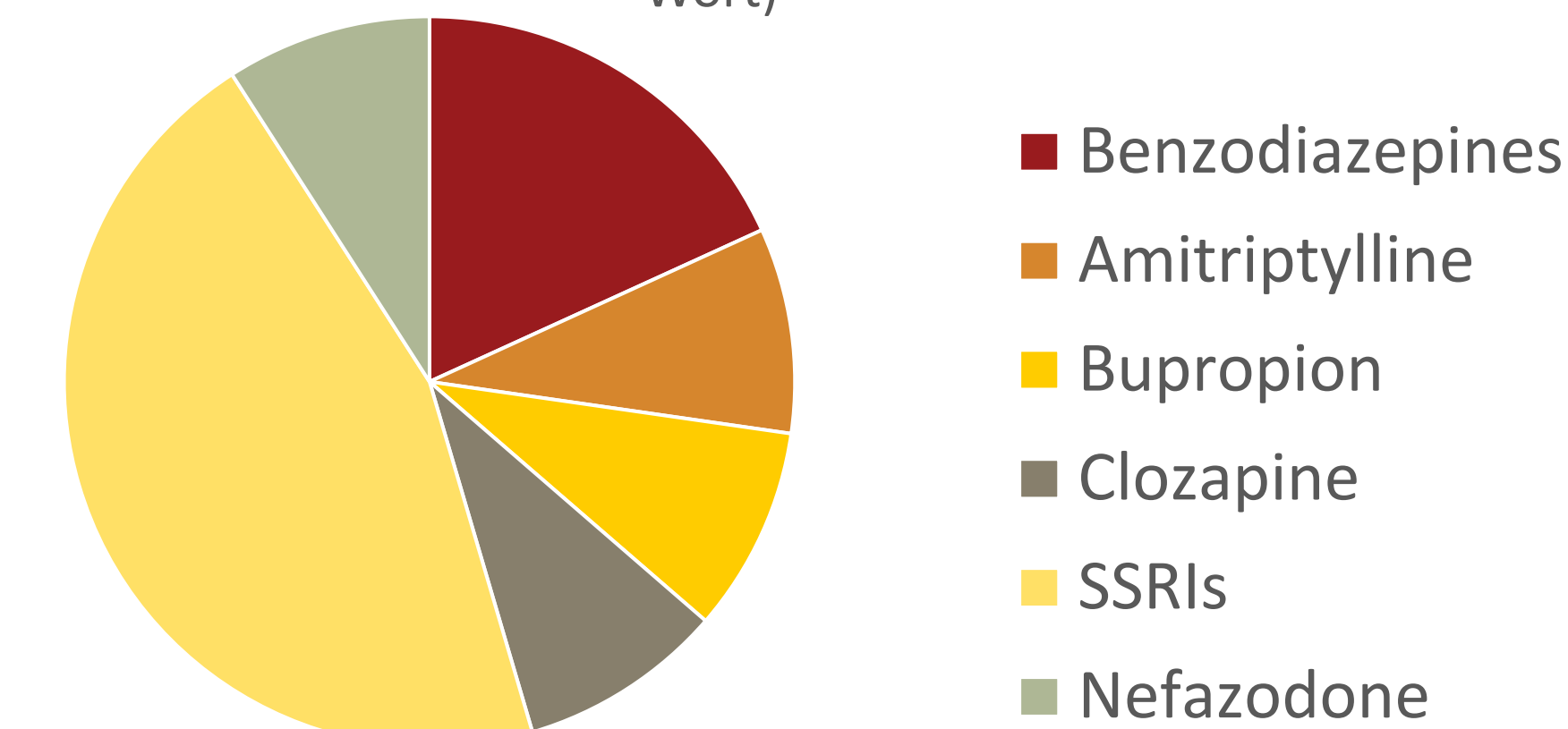


Graph 3. Causes of Drug-Herb Interaction (Kava)

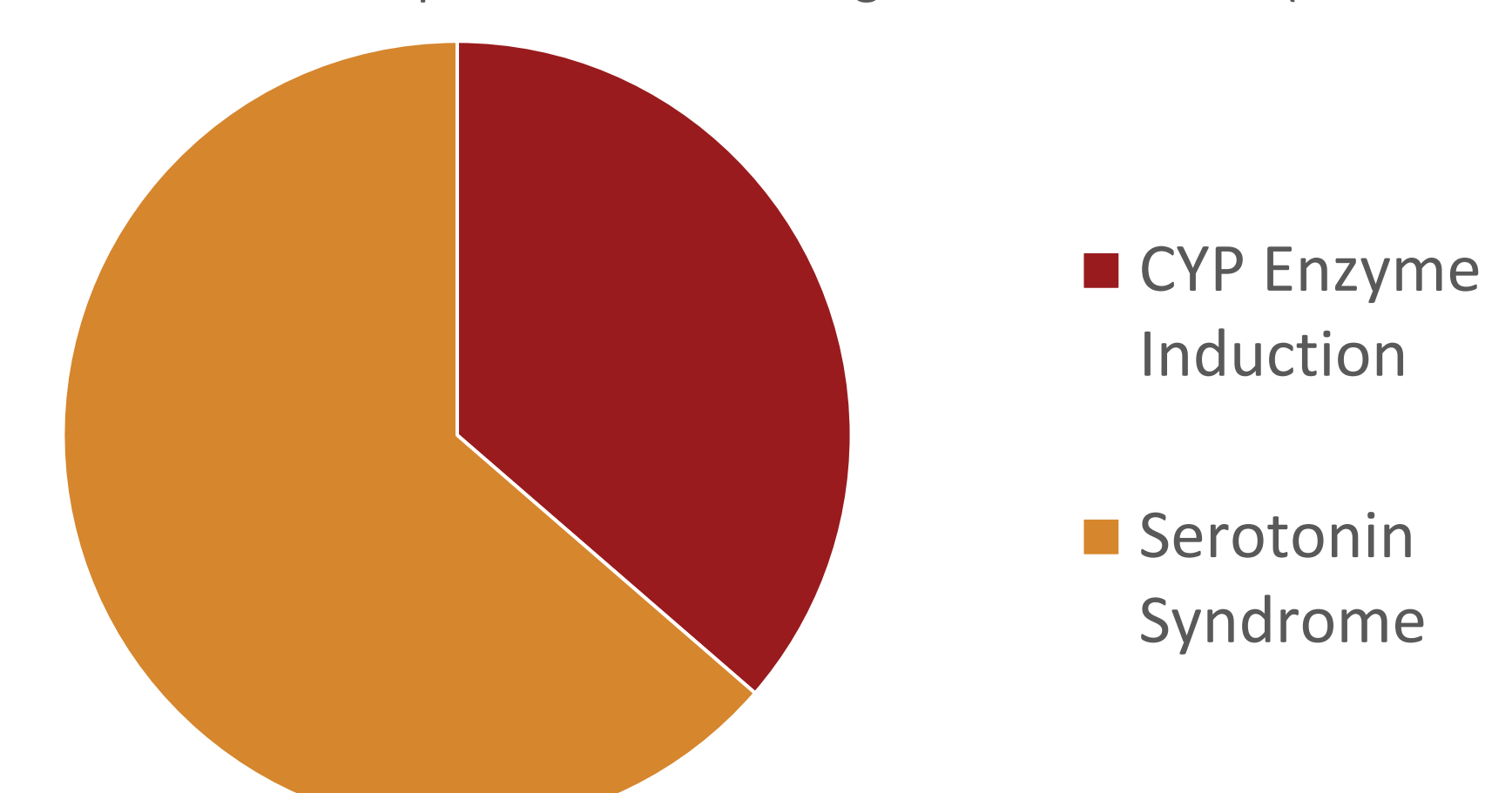


St. John's Wort

Graph 4. Psychotropic Medication Interactions (St. John's Wort)

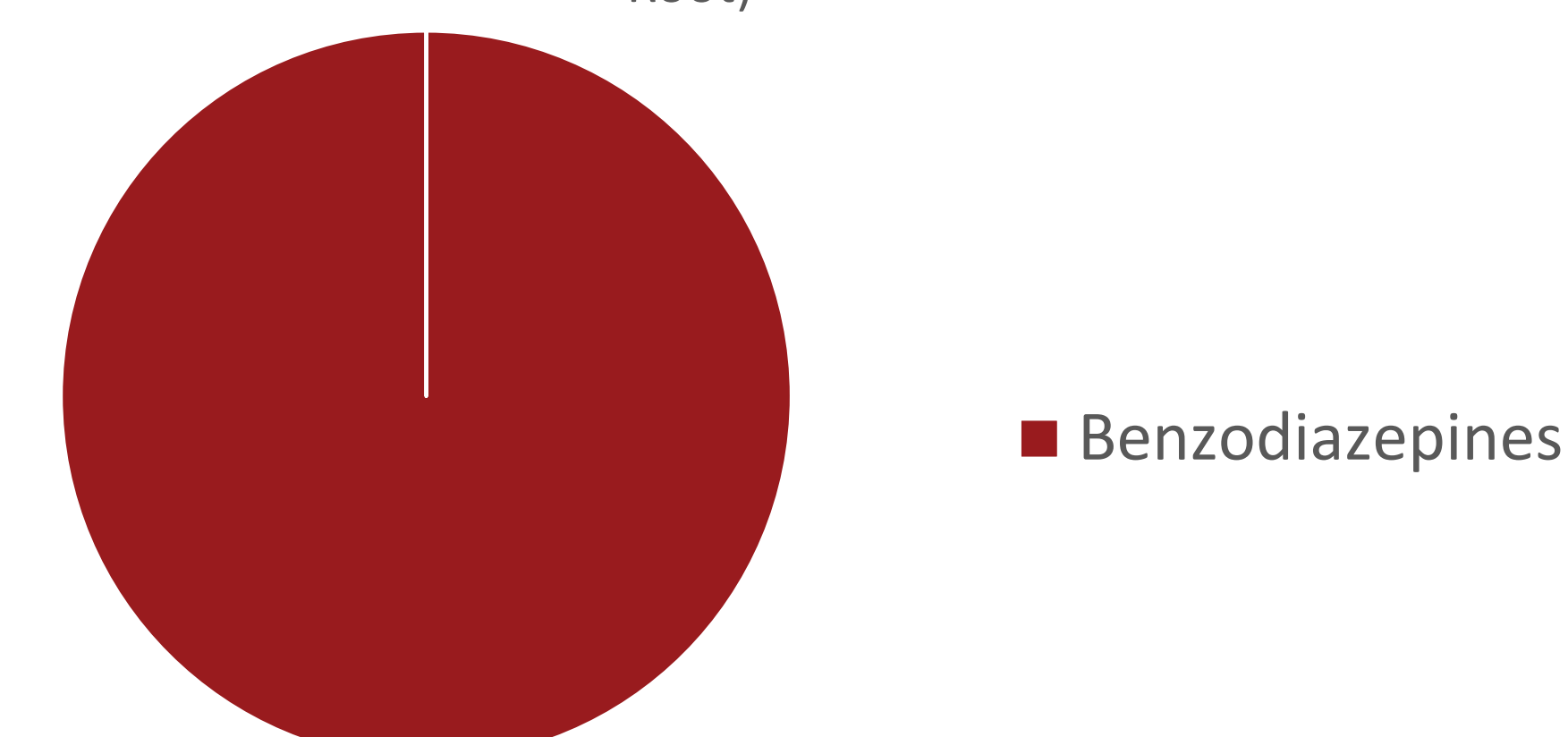


Graph 5. Causes of Drug-Herb Interaction (St. John's Wort)

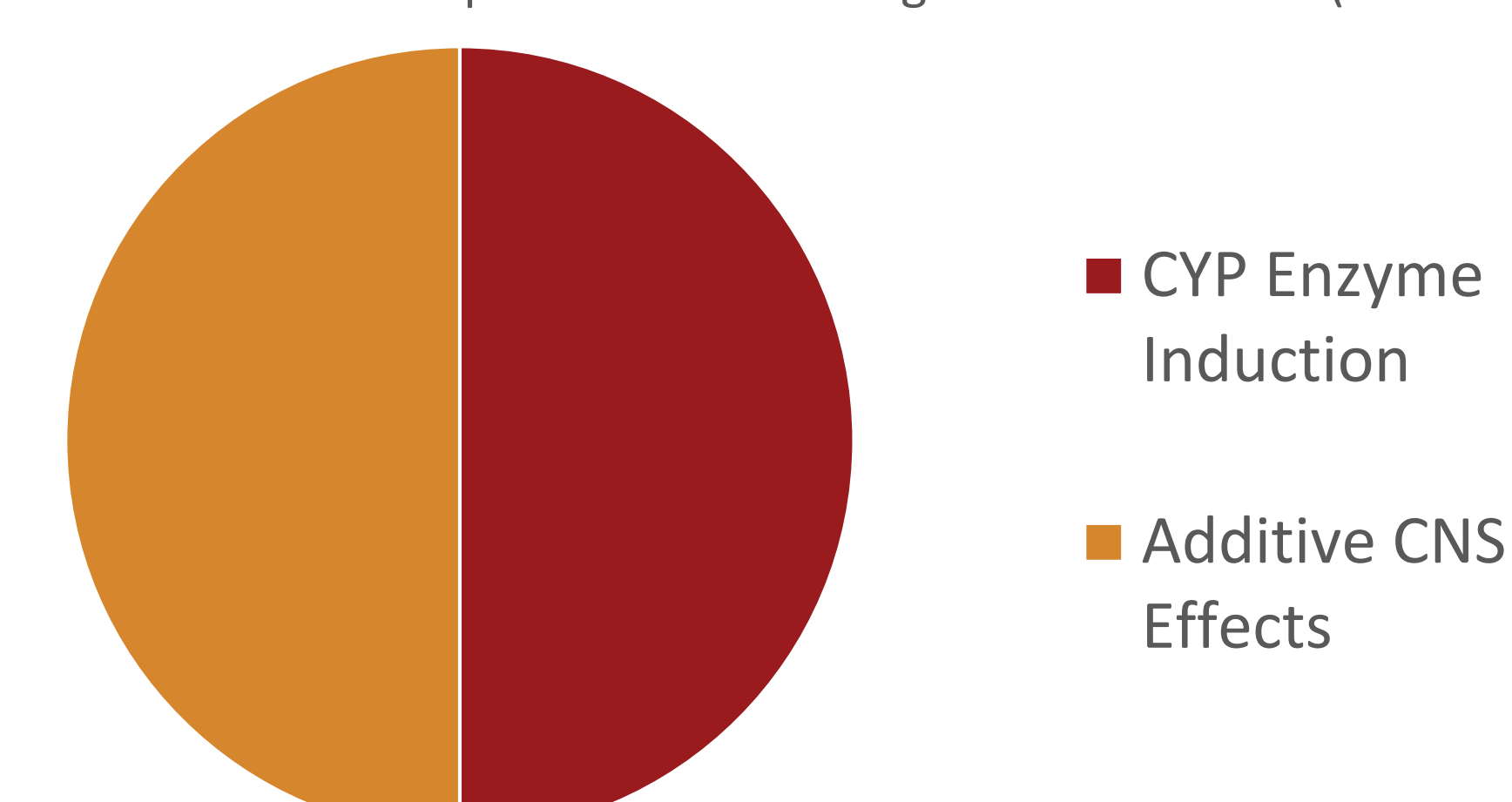


Valerian Root

Graph 6. Psychotropic Medication Interactions (Valerian Root)



Graph 7. Causes of Drug-Herb Interaction (Valerian Root)



Discussion/Conclusions

- Most common class of medications leading to adverse effects were benzodiazepines
 - CYP enzyme inhibition (Kava/Valerian Root)
 - Serotonin Syndrome (St. John's Wort)
 - CYP enzyme induction (St. John's Wort)
- Statistical Significance
 - Small amount of articles
 - Case report bias
 - Psychotropic medication titration to effect
 - Herbal supplements in place of psychotropic medications
- Clinically significant interactions do exist
- Lack of inclusion in common medical practice
- Raise awareness of herb drug interactions

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