


# Chapter 3


## Neurophytomedicine: A Critical Review of Traditional Herbal Anxiolytics

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### ABSTRACT

*This chapter examines the scientific and clinical foundations of traditional herbal anxiolytics within the emerging field of neurophytomedicine. It explores the global prevalence and neurobiology of anxiety disorders, limitations of conventional pharmacological treatments, and the therapeutic potential of botanicals with historical use in anxiety relief. Emphasis is placed on phytochemical classes such as flavonoids, terpenes, alkaloids, and saponins, and their mechanisms of action on GABAergic, serotonergic, and hypothalamic pituitary adrenal systems. Comparative clinical evidence, safety considerations, herb-drug interactions, and regulatory frameworks are critically reviewed. The chapter also addresses challenges in standardization,*

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*placebo effects in trials, and ethical sourcing of medicinal plants. Finally, it outlines future directions including pharmacogenomic personalization, AI-driven phytochemical discovery, and integration of validated botanicals into mainstream psychiatry.*

## **INTRODUCTION:**

Anxiety disorders rank among the most common mental health conditions globally, affecting about 4% of the population. By incorporating generalized anxiety disorders, terror disorders, social anxiety disorders and specific phobias, they often cause significant emotional crisis and functional loss. The burden is extended to the high rates of comorbidity with depression, substance use disorders, and chronic medical diseases, causing effective treatment to both a clinical and public health priority (Javaid et al., 2023).

Current medicinal options, including benzodiazepines, selective serotonin receptor inhibitors (SSRIs), and serotonin-norepinephrine reuptake inhibitors (SNRIs), remain the mainstay of treatment, but are far from ideal. Benzodiazepines, although effective, well-recognized risk dependence, withdrawal, and cognitive dull that limits long-term use. SSRIs and SNRIs avoid that damage, but require weeks to get medical benefits and often cause sexual dysfunction, gastrointestinal disturbing, and rearing problems. Even in optimal conditions, an important subgroup of patients reacts only partially, and in low-resources settings, these drugs can be inaccessible or ineffective. These intervals have demanded options that are better tolerated, culturally adaptable (Conway et al., 2024).

Traditional herbal anxiolytics have become increasingly popular in this area. Their attraction goes beyond their natural origins, drawing on centuries of ethnobotanical practice and the belief, whether true or not, in their increased safety and overall wellness benefits. Despite their widespread usage, most herbal remedies have not undergone the same rigorous pharmacological and clinical examination as conventional drugs. This underscores the need to evaluate how these treatments work, how effective they are, and whether they meet modern safety standards while giving traditional knowledge the careful, evidence-based scrutiny it deserves.

Neurophytomedicine studies plant-derived compounds that affect the nervous system, drawing on neuroscience, pharmacognosy, and ethnopharmacology. Both synthetic and plant-based anxiolytics work by targeting specific neurobiological pathways to reduce anxiety. Traditional medicine, including Ayurveda, Traditional Chinese Medicine (TCM), African traditional medicine, and other indigenous healing systems, has long relied on plants for mental health care. Understanding these perspectives allows herbal anxiolytics to be considered as potentially valuable neuroactive agents, not just as cultural artifacts (Küveli Akkol et al., 2021).

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