3. THEORETICAL ANALYSIS
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3.1 Purpose of the study

The project was carried to answer the following research questions:

1. Why treatment of depression and Anxiety needed?
2. Why do we need herbal drugs?
3. Are herbal formulations effective?

1. Psychiatric illnesses, anxiety and depression are extremely devastating, multifaceted and have a major impact on the quality of life. In addition, the prevalence of both disorders is on the increase, especially in the young, and they show considerable overlapping and co-occurrence as discussed in the previous chapters. Many symptoms of anxiety and depression are similar, and mild anxiety can be difficult to distinguish from mild depression. Hence improved and better treatment of these disorders is must.

2. There are plenty of synthetic drugs available for the pharmacotherapy of anxiety and depression which can provide some improvement in clinical state of the patient but come with the burden of adverse events. To add to this burden, it is difficult to predict which patient will respond to any given treatment. However, on the other hand drugs obtained from natural origin are perceived to have least risk and side effect profiles and yet claim to cure psychiatric disorders much the same way as their synthetic counterparts.

3. The survey of scientific literature revealed the effectiveness of many herbs and herbal formulations used at both preclinical and clinical settings.

Herbal formulations in Ayurveda are formulated on the premise that the herbs selected in combination as per the prescribed formulae of Ayurvedic texts ensure synergism and help to overcome the side effects of the other drugs. However, there are no scientific reports found to ascertain this claim. Hence the present work was carried to explore the the usefulness or beneficial effects of a polyherbal formulation, Trans-01, in anxiety and depression.
3.2 Aims and objectives

In view of the importance of the medicinal properties attributed to drugs of plant origin and non compliance of the most of synthetic drugs, we undertook an investigation related to the usefulness or beneficial effects of a polyherbal formulation, Trans-01, for its psychopharmacological activities using various animal models depicting psychological aberrations. The study was carried with the following aims objectives,

1. To determine the short and long term toxicity profiles of the herbal formulation, Trans-01 to assess its safety.
2. To assess the possible Anxiolytic effect of Trans-01 in various anxiety models
3. To extend the activity profile of the Trans-01 in depression models
4. To study the mode of anxiolytic action of Trans-01 by using various antagonists like flumazenil (GABA<sub>A</sub>-benzodiazepine (BZD) receptor antagonist), picrotoxin (GABA<sub>A</sub>-receptor-chloride channel complex antagonist) and bicuculine (GABA<sub>A</sub>-GABA binding receptor antagonist).
5. To study the mode of antidepressant effect of Trans-01 by using adrenergic antagonist, Yohimbine and biochemical estimation of stress induced corticosterone levels.
6. Since most of the commonly used antianxiety drugs especially benzodiazepines are associated with side effects like sedation, muscle incoordination etc. Therefore, studies were also carried to observe sedative and/or muscle incoordination liability of the herbal formulation, Trans-01.