

**ROLE OF MEDICINAL PLANTS IN THE TREATMENT OF PSYCHOLOGICAL  
DISORDERS BY TRADITIONAL PRACTITIONERS OF KADAPA DISTRICT, ANDHRA  
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516005, Andhra Pradesh,  
India.**ABSTRACT**

Plants occupy an important place in Indian medical systems. Every nation has its own set of medicinal plants. Plants are integral parts of Indian life and culture. The present article attempts to highlight the importance of some medicinal plants which are traditionally used in the treatment of psychological disorders by the people of Kadapa District. About 33 plant species belonging to 31 genera and 23 families were documented. All these plant species are used to treat 20 psychological disorders. Significance of these plants in different psychological disorders has been discussed. People of this study area are highly conscious about medicinal plants which have their defined roles and importance. These plants are found in wild as well as grown in close vicinity of people in various places of this study area. These medicinal properties are not only showing the human relation with plant diversity, but also help in the conservation of species.

**INTRODUCTION**

Plants have played a great role in the growth and development of human race. First and the most important necessity for human life is the oxygen which is provided by the plants. Besides this, for day to day life, plants have offered food, fodder, fuel wood, timber, dyes, latex, gums, fibres, shelter, fruits etc. Additionally, there are many plant species which have continuously been used by the natives for traditional medicines. Indian subcontinent is being inhabited by 500 tribal communities belonging to 27 ethnic groups (Sajem and Gosai, 2006). Since time immemorial tribal people use plants to cure various ailments and diseases. Applications of medicinal plants constitute one important way of maintaining good health. Traditional knowledge is a record of human achievement in comprehending the complexities of life and survival of human society. The information about medicinal properties of plants came traditionally through generation by word of mouth. About 85% of rural people in India depend on wild medicinal plants for the treatment of various ailments. Folklore and traditional knowledge is in the process of extinction due to disruption of forest covers and uprooting of tribal population due to industrialization. Ethnomedicinal studies are often significant in revealing locally important plant species for discovering of crude drugs. Traditional healing systems play an important role in maintaining the physical and psychological wellbeing of the vast majority of tribal people in India. Many traditional plants are using to treat various psychological disorders are due to a function of many factors, such as exposure to stress, genetic disposition, family

background, and so on. According to human psychology, stress is a feeling of strain and pressure. Insomnia or sleeplessness is a sleep disorder in which there is an inability to fall asleep or to stay asleep as long as desired. Amnesia is a deficit in memory caused by brain damage, disease or psychological trauma. Anxiety disorders are type of abnormal behaviours characterized by unrealistic, irrational fear. Depression is a state of low mood and aversion to activity that can affect a person's thoughts, behaviour, feelings and sense of well-being. Bipolar disorder is a diagnostic term describing individuals who experience episodes of mania or of both mania and depression. Dissociative disorders are stress-related disorders, characterized by amnesia, fugue or multiple personality. Schizophrenia is a mental disorder often characterized by abnormal social behaviour and failure to recognize what is real. Most of the people do not approach doctors due to lack of knowledge, costly medicine and different instrumental treatments. A mental illness can make the people miserable and can cause problems in daily life, such as at school or work or in relationships. In most cases, symptoms can be managed with a combination of medications and talk therapy (psychotherapy). Signs and symptoms of mental illness can vary, depending on the disorder, circumstances and other factors. Mental illness symptoms can affect emotions, thoughts and behaviors. The signs and symptoms includes feeling sad or down, confused thinking or reduced ability to concentrate, excessive fears or worries, or extreme feelings of guilt, extreme mood changes of highs and lows, withdrawal from friends and activities, significant tiredness, low energy or problems sleeping, detachment from reality (delusions),

paranoia or hallucinations. Inability to cope with daily problems or stress. Trouble understanding and relating to situations and to people. Problems with alcohol or drug use, major changes in eating habits, sex drive changes, excessive anger, hostility or violence, suicidal thinking. (Suresh and Ravindra, 2010)

Today continued deforestation and environmental degradation in many areas of India depleting the medicinal plant resources. In the modern days there has been increase in the demands of herbal products and plant based drugs across the world resulting in the over exploitation of medicinal plants. Habitat degradation, unscientific harvesting and over exploitation to meet the demands of medicinal plants have led to the extinction of plant species in the world. According to report of all India Ethnobiological survey accomplished by Ministry of Environment and Forests (MoEF), Government of India, there are over 8000 plant species that are being used by the local people. These plants are used Ayurveda, Siddha, Unani and Homeopathy Systems of medicine (Prasad 2008). The information about medicinal plants is available in many Indian literatures (Nadakarani, 1954). *Charakasamhitha* and *Sursuthasamhitha* written by Charaka and Sursutha respectively have information regarding traditional medicinal plants and their therapeutic values (Meera, 1958). Arati Laddimath and Srinath (2016) reported 29 plant species used to treat mental disorders by traditional practitioners of Vijayapura District of Karnataka. For the first time, Krishnamachari (1900) documented the use of leaves of *Erythroxylum monogynum* and roots of *Aloe vera* as food during paucity.

Though, different workers have explored and documented the ethnobotanical information from different parts of Andhra Pradesh (Hemadri *et al* 1987a, 1987b, Muralidhar Rao and Pullaiah, 1989, Jeevan Ram and Raju, 2011, Tanuja Sivaram *et al* 2018.). Sripriya and Naik (2019) recorded 30 potential ethnomedicinal plants from Sesshachalam Biosphere Reserve of Andhra Pradesh. Allopathy treatment causes side effects, because of these side effects people prefer natural drugs to treat various ailments and diseases. Natural drugs are safest and ancient. The main focus of the present study is to ascertain the detailed information on the use of plants in the treatment of psychological disorders by traditional practitioners of Kadapa District, Andhra Pradesh.

### Topography of the Study Area

The Kadapa District with an area of 15,378.41 Sq.Km is situated in the south central part of Andhra Pradesh. It is bounded on the north by Kurnool, on the south by Chittoor, on the east by Nellore and on the west by Anantapur Districts. Geometrically the district is located between 13°43' and 15°14' of the northern latitude and 77°55' and 79°29' of the eastern longitude. The district spreads northwards beneath the western slopes of the Eastern Ghats as a rough parallelogram dented deeply in its southern, western and northern boundaries. The

important hill ranges are Velikonda, Palakonda, Nallamalais and Yerramalais. Most of the forests of Kadapa District possess the remnants of dry deciduous forests indicating that these were deciduous forests in the past which have been gradually degraded to scrub type (Champion and Seth, 1968). The forest area in YSR District is 5,050 km<sup>2</sup>. It is 32.87% of the district area. In the northeast part of the district rainfall is high. The vegetation includes number of endemic, rare and threatened plants (Ahmedullah and Nair1987). Red Sanders *Pterocarpus santalinus* (Fabaceae) is an endemic and endangered tree species of medicinal value is available in abundance in this area. The Kadapa District is mainly drained by the river Penna and its numerous tributaries and many streams. The important tributaries to the Penna River are Kunderu, Sagileru, Cheyyeru, Papagni and Chitravati. The forest possesses diverse plant species. There are number of historical temples, hills, streams which are associated with various medicinal plants. Colonel Wilks says that, each stream in this part of Kadapa District has its song to sing, and every hill its story to narrate, but unfortunately they do not narrate them or if they do, do it in language unintelligible to the modern historian (Gribble, 1875).

### MATERIALS AND METHODS

The present study was carried out in Kadapa District in the year 2019 to find out some traditionally important plants which are used in the treatment of psychological disorders. The information regarding traditionally using plants was collected through consulting the local people, traditional practitioners through interviews, discussions and own observations (Jain and Rao, 1977). Many remote areas were visited to interact the people and gathered information related to local name and medical significance of the plants. The interviews were preferably conducted in local language for the convenience of the respondents. In this way total of 75 persons were contacted for present study. Several specimens of plants were collected. The collected specimens were identified with the help of Floras (Pullaiah and Chennaiah, 1993). The voucher specimens are deposited in Yogi Vemana University herbarium, Kadapa. The plant species are arranged alphabetically with botanical names followed by local names, habit, family and medicinal significance of plants with mode of administration.

### RESULTS AND DISCUSSION

The present study shows that 33 plant species are associated with psychological disorders. They are belonging to 31 genera and 23 families. These plants are used to treat 20 psychological disorders. The dominant families Rutaceae, Fabaceae, Combretaceae, Anacardiaceae, Lamiaceae and remaining families contributed one species. These plant species regularly used by the local people treat various psychological disorders. Some plants like *Ocimum*, *Terminalia*, *Jasminum* are more effective medicinal plants to treat

psychological disorders. The medicinal significance of each plant is enumerated in table 1. The importance of plants in human life as food, fibre, cosmetics, medicines, wood, gums, resins, oils etc. was discussed time to time by many researchers. Since time immemorial conservation of natural resources has been an integral part of diverse cultures in different ways. The traditional use of plants shows the symbiotic relation of human beings and nature. Indigenous communities all over the world lived in harmony with the nature and conserved its valuable plants. It is very important to uphold traditions and beliefs in order to protect and conserve these medicinal plants. The traditional culture and religion of

human beings have deep faith in the nature and its components in every walk of life. These plants are used to treat psychological disorders such as anxiety, bipolar disorder, mental stress, dissociate amnesia, dissociate disorder, schizophrenia, mood and panic disorder, obsessive compulsive disorder, amnesia, mania, phobia, traumatic disorder, intellectual disability, depression, hysteria, insomnia, panic disorder, mental retardation, personality disorder, intellectual disability etc. Many of these medicinal plants are found in every household in the study area and are used in religious activities as well as health care. In this way these medicinal plants play a major role in mental as well as physical health of people.

S. No.	Botanical Name	Local Name	Habit	Family	Mode of administration
1	<i>Aegle marmelos</i> (L.) Corr.	Maredu	Small tree	Rutaceae	Leaf powder is mixed with honey and administered orally twice a day for anxiety and bipolar disorder.
2	<i>Atalantia recemosa</i> Wight & Arn.	Kada nimma	Tree	Rutaceae	Leaves mixed with ghee and used daily for mental stress
3	<i>Argemone mexicana</i> L	Bramhadandi	Herb	Papavaraceae	The whole plant extract is mixed with lemon and used to treat dissociate amnesia and mental stress.
4	<i>Boswellia serrata</i> Roxb.	Guggilam	Tree	Bursaraceae	Stem bark mixed with honey and used for Dissociate disorder
5	<i>Calycopteris floribunda</i> (Roxb.) L.	Adavi jama	Shrub	Combretaceae	Leaf paste used orally to treat schizophrenia.
6	<i>Capparis zeylanica</i> L	Tella chitramulam	Shrub	Capparaceae	Root bark with ginger used to treat mental stress and phobia
7	<i>Cassia fistula</i> L	Rela	Tree	Caesalpinacea	Flowers mixed with garlic and used to treat psychotic disorder.
8	<i>Cissus pallida</i> (Wight & Arn.) Planch	Nallateega	Shrub	Vitaceae	Root paste is taken orally for mood and panic disorder.
9	<i>Cochlospermum religiosum</i> (L.) Alston	Kondagogu	Tree	Cochlospermaceae	Leaf powder mixed with heat water taken orally to treat obsessive compulsive disorder.
10	<i>Dalbergia latifolia</i> Roxb	Jittegi	Tree	Fabaceae	Stem bark powder mixed with heat water and administered orally for amnesia and mania.
11	<i>Decalepis hamiltonii</i> <i>Dalbergia latifolia</i> Roxb L.	Maredu Kommulu	Herb	Apocynaceae	Leaf paste mixed with <i>sesamum</i> oil and applied externally on forehead for post – traumatic disorder.
12	<i>Evolvulus alsinoides</i> L	Vishnukantham	Herb	Convolvulaceae	The plant extract used for mental stress and depression.
13	<i>Flemingia strobilifera</i> (L.) R.Br.	Nallabaddu	Shrub	Fabaceae	Root decoction used for hysteria.
14	<i>Indigofera aspalathoides</i> Vahl	Nela vempali	Shrub	Fabaceae	Whole plant extract mixed with cow milk and used to treat intellectual disability.
15	<i>Jasminum pubescens</i> L.	Manchi malle	Climber	Oleaceae	The leaf paste with turmeric applied externally for depression and anxiety.
16	<i>Lannea coromandelica</i>	Gumpina	Tree	Anacardiaceae	Fresh leaves ground with

	(Houtt.) Enum Merr				water and administered to treat insomnia and panic disorder.
17	<i>Mimusops elengi</i> L.	Pogada	Tree	Sapindaceae	Fresh watery sap of stem and root used to cure mental retardation and anxiety.
18	<i>Murraya paniculata</i> (L.) Jacq.	Naga golugu	Shrub	Rutaceae	Leaves boiled with coconut oil and applied on forehead to reduce personality disorder and phobia.
19	<i>Ocimum basilicum</i> L.	Bhu tulasi	Herb	Lamiaceae	Leaf paste mixed with ginger and used orally for psychotic disorder.
20	<i>O. sanctum</i> L.	Krishna tulasi	Herb	Lamiaceae	Dried leaf and stem powder mixed with garlic and used to cure dissociate amnesia and mood disorder.
21	<i>Opilia amentacea</i> Roxb	Pacha papiti	Shrub	Opiliaceae	Juice of whole plant used orally to treat schizophrenia and amnesia.
22	<i>Plumbago zeylanica</i> L.	Tella Chitramulam	Herb	Plumbaginaceae	Whole plant extract with salt applied externally on head to cure mental stress and depression.
23	<i>Santalum album</i> L.	Srigandham	Tree	Santalaceae	The paste derived from wood is given on forehead to treat mental retardation and stress.
24	<i>Shorea robusta</i> Gaertn.f.	Guggilam	Tree	Dipterocarpaceae	Root bark mixed with milk and used orally to reduce obsessive compulsive disorder.
25	<i>Semecarpus anacardium</i> L.f.	Nallajeedi	Tree	Anacardiaceae	The root bark powder mixed with butter milk and used to treat hysteria and mania.
26	<i>Sida rhombifolia</i> L.	Attibala	Shrub	Malvaceae	Root decoction mixed with lemon and used orally to treat bipolar disorder and insomnia.
27	<i>Terminalia arjuna</i> (Roxb.ex DC.) Wight&Arn.	Tella maddi	Tree	Combretaceae	The leaf extract applied on head to cure psychotic disorder.
28	<i>T. coriacea</i> (Roxb.) L.	Nalla maddi	Tree	Combretaceae	Stem bark boiled in water and mixed with salt and used orally to treat post-traumatic disorder.
29	<i>Tiliacora acuminta</i> (Lam.) Hook. f. & Thoms	Kappateega	Climber	Menispermaceae	Leaves and flowers ground with water and used orally to cure intellectual disability.
30	<i>Toddalia asiatica</i> (L.) Lam	Konda mirapa	Shrub	Rutaceae	Whole plant crushed with milk and used for obsessive compulsive disorder.
31	<i>Vitex negundo</i> L.	Vavili	Shrub	Verbenaceae	Tender leaves ground with water and juice is given to treat mental stress and anxiety.
32	<i>Withania somnifera</i> (L.) Dunal	Aswagandha	Shrub	Solanaceae	The leaf powder mixed with milk and used to treat schizophrenia and hysteria.
33	<i>Wrightia tinctoria</i> (Roxb.) R.Br.	Palavareni	Tree	Apocynaceae	Leaf extract with ginger applied externally to cure panic disorder, bipolar disorder and mania.

## CONCLUSION

Since ancient time plants are associated with human beings. Plants provide everything to humans. Indians believe that some plants are represented by gods. The traditional beliefs support the sustainable utilization of natural resources. The local people and traditional practitioners of this study area possessing sound knowledge of medicinal plants. Therefore, it is need of the hour to conserve the traditional knowledge and also to pass on this to our present and future generations effectively. Most of the people of this study area depends on traditional medicinal plants because of availability of effective compounds. Therefore, these plants have to take for further pharmacological studies.

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