EUROPEAN JOURNAL OF BIOMEDICAL AND PHARMACEUTICAL SCIENCES
http://www.ejbps.com

ISSN 2349-8870
Volume: 12
Issue: 10
Year: 2025

PREPARATION TECHNIQUES AND THERAPEUTIC APPLICATIONS OF HINGUASTICA AND ASHWAGANDHA HERBAL POWDERS: AN ETHNOBOTANICAL STUDY FROM ADDATHEEGALA, EAST GODAVARI DISTRICT, INDIA

Dr. B. B. R. G. Vijaya Lakshmi[1*], G. Rani[2], U. Rajarao[3]

[1]Associate Professor, [2]Assistant Professor in Botany, Ch.S.D.St. Theresa's College for Women (A), Eluru, [3]Research Scholar in Botany, Government College (Autonomous), Rajahmundry.

***Corresponding Author: Dr. B. B. R. G. Vijaya Lakshmi**
Associate Professor, Ch.S.D.St. Theresa's College for Women (A), Eluru, Government College (Autonomous), Rajahmundry.

DOI: https://doi.org/10.5281/zenodo.17276337

Article Received on 19/08/2025 **Article Revised on 08/09/2025** **Article Accepted on 29/09/2025**

ABSTRACT
The present study explores the therapeutic potential of herbal medicines with a particular focus on the preparation and application of Hingvashtika and Aswagandha, a traditional polyherbal formulation widely used in indigenous medical systems. The primary objective of this research is to examine the curative properties of locally available medicinal plants and to underscore the relevance of ethnobotanical knowledge in contemporary healthcare. Emphasis is placed on documenting traditional preparation methods, assessing the pharmacological significance of the ingredients, and raising awareness about the value of tribal herbal practices in promoting community health. This study also aims to encourage the sustainable use and conservation of medicinal plants through public engagement initiatives such as workshops and seminars. Furthermore, by promoting the cultivation and scientific validation of these plant resources, the project seeks to integrate traditional wisdom with modern applications for broader therapeutic use. Ultimately, this work contributes to the preservation of tribal ethnomedical heritage while offering viable, natural alternatives for holistic health and wellness.

KEYWORDS: Herbal medicines, Tribal areas.

INTRODUCTION
Ethnobotanical knowledge represents one of the most ancient and valuable repositories of traditional wisdom, reflecting the intricate relationship between indigenous communities and the plant biodiversity of their ecosystems. This body of knowledge encompasses the empirical use of plants for food, medicine, shelter, and cultural practices, and has increasingly gained attention for its potential in sustainable development, biodiversity conservation, and the discovery of novel bioactive compounds.

The term *ethnobotany* describes the study of the interactions between people—particularly indigenous and aboriginal populations—and plants. Although such interactions have existed since prehistoric times, ethnobotany emerged as a distinct scientific discipline in the twentieth century, integrating perspectives from botany, anthropology, pharmacology, and environmental sciences. Ethnobotanical investigations have since illuminated previously undocumented plant species and revealed novel uses of well-known taxa, offering new opportunities for the development of plant-based products and agro-industrial applications.[1]

In India, herbal knowledge and plant-based therapeutics have deep cultural roots. Tribal and rural populations have relied on local flora for primary healthcare since time immemorial. These traditional systems of medicine—many of which underpin structured practices such as Ayurveda—originate from ethnomedical traditions passed down through generations. Ethnobotanical knowledge continues to play a crucial role in the health, nutrition, and livelihood security of these communities, while simultaneously offering significant potential for the development of phytotherapeutics and nutraceuticals in the modern context.

Field studies across tribal regions in India, including those in Andhra Pradesh and the Northeast, reveal extensive dependence on wild plant species for essential resources such as food, medicine, fibres, oils, gums, tannins, and dyes. However, in many of these areas, agricultural practices remain technologically underdeveloped. A significant number of tribal groups practice *jhum* (shifting cultivation), which involves the periodic clearing of forest land to cultivate crops. While this practice is deeply rooted in tradition and adapted to

local needs, it has contributed to serious ecological concerns—including deforestation, soil erosion, and the depletion of water resources.

Tribal land tenure is typically governed by customary rights, divided among community, clan, and individual holdings. The migratory nature of *jhuming*—prompted by declining soil fertility—further exacerbates environmental degradation and poses challenges to sustainable land management. These interconnected issues underscore the urgent need for a coordinated, multidisciplinary approach involving botanists, agricultural scientists, anthropologists, and policy makers to support ecologically sound development and tribal welfare.

Complementing this traditional knowledge base is the Ayurvedic system of medicine, which emphasizes preventive care and holistic well-being by maintaining the balance between body, mind, and environment. Rooted in the use of natural herbs, spices, and plant-based substances, Ayurveda offers detoxifying, energy-boosting, and disease-preventing benefits without the side effects often associated with synthetic pharmaceuticals.[2] Its ability to manage chronic conditions such as cancer, diabetes, arthritis, and asthma positions it as a valuable complementary system to modern medicine.

In this context, ethnobotanical studies not only preserve cultural heritage but also offer practical insights for modern healthcare innovation, sustainable resource management, and tribal empowerment.[3] The documentation and scientific evaluation of traditional herbal formulations—such as Hinguastica and Ashwagandha powders—hold significant promise for both community health and global bioeconomy development.

METHODOLOGY

Trained and prepared herbal medicines under the guidance of medical practitioners at Vanantharam Ayurvedic Pharmacy, Addatheegala, East Godavari District, A.P. Raw materials were collected from the nursery situated in the Vanantharam Ayurvedic Pharmacy and surrounding forest areas and prepared the herbal medicines like Ruthushulanthakavatti, Raktha Pradara, Kaphakasari, Hingwastika churnam, Aswagandha Churnam, Ayush Kadha Churnam and Jeevanadhara. The prepared herbal medicines were dried under the shade, then packed and stored in cool place. Out of them, Hingwastika churnam and Aswagandha Churnam were selected for the present study.

Preparation of Hingvaashtica churnam: Dry ginger**,** Black pepper, Pepper, Black cumin seeds, Shweta jeeraka, Ajmoda, Inguva, Saindhava lavana were the ingredients used. All of them were grounded and made into a fine powder. Dosage- 2 to 5 grams of powder was given to the subjects twice a day or as directed by the physician. This was given to patients suffering from digestive disorders.

Preparation of Ashwagandha churnam: Ashwagandha roots and Cow milk were the ingredients used. Ashwagandha roots are cut into small pieces. They are boiled with stream of cow milk. After boiling, the roots are taken out and dried in sunshade for 2 days. The dried roots were grounded and made into a fine powder. The dosage was given as directed by the physician. This was given to patients suffering from gynaec problems, anaemia and insomnia.

RESULTS

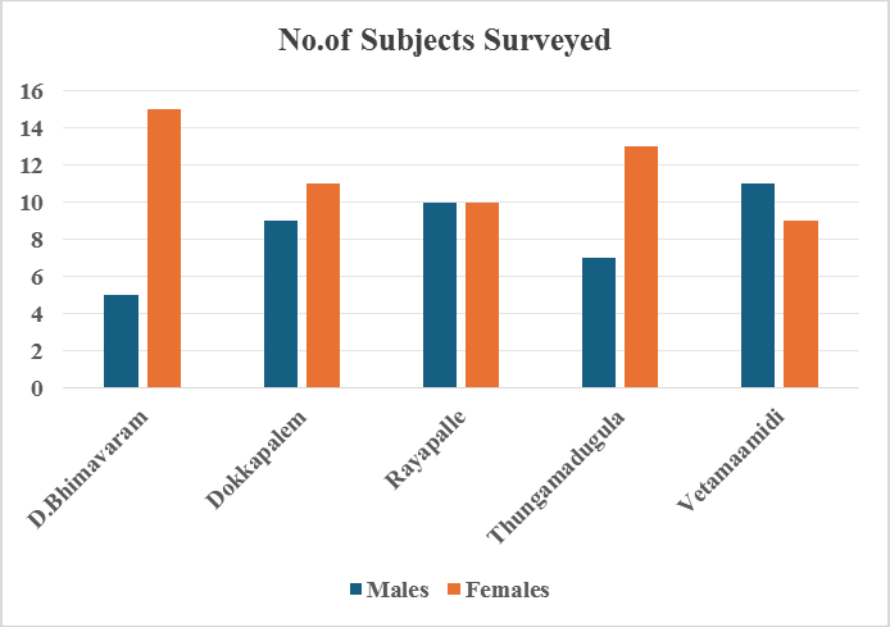
Table 1: Profile of the selected study area.

S.No.	Name of the Study area	Mandal	District
1.	D.Bhimavaram	Addatheegala	East Godavari
2.	Dokkapalem	Addatheegala	East Godavari
3.	Rayapalle	Addatheegala	East Godavari
4.	Thungamadugula	Addatheegala	East Godavari
5.	Vetamaamidi	Addatheegala	East Godavari

- **Table 1 shows the Profile of the selected Study areas.**
- The study areas are D.Bhimavaram, Dokkapalem, Rayapalle, Thungamadugula, Vetamaamidi villages of Addatheegala Mandal.

Table 2: No. of Subjects surveyed.

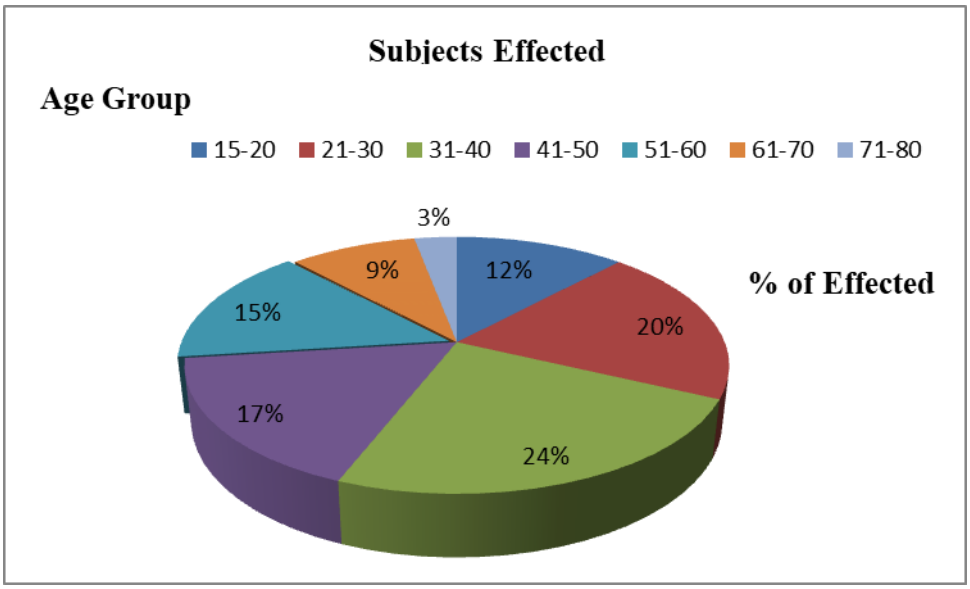
S.No.	Name of the Study area	Males	Females	No.of Subjects surveyed
1.	D.Bhimavaram	5	15	20
2.	Dokkapalem	9	11	20
3.	Rayapalle	10	10	20
4.	Thungamadugula	7	13	20
5.	Vetamaamidi	11	09	20
Total				100



- **Table 2 shows the number of subjects surveyed.**
- In study area 1, number of males is 5 and females is 15.
- In study area 2, number of males is 9 and females is 11.
- In study area 3, number of males is 10 and females is 10.
- In study area 4, number of males is 7 and females is 13.
- In study area 5, number of males is 11and females is 9.

Table 3: Subjects Effected (%) from various diseases.

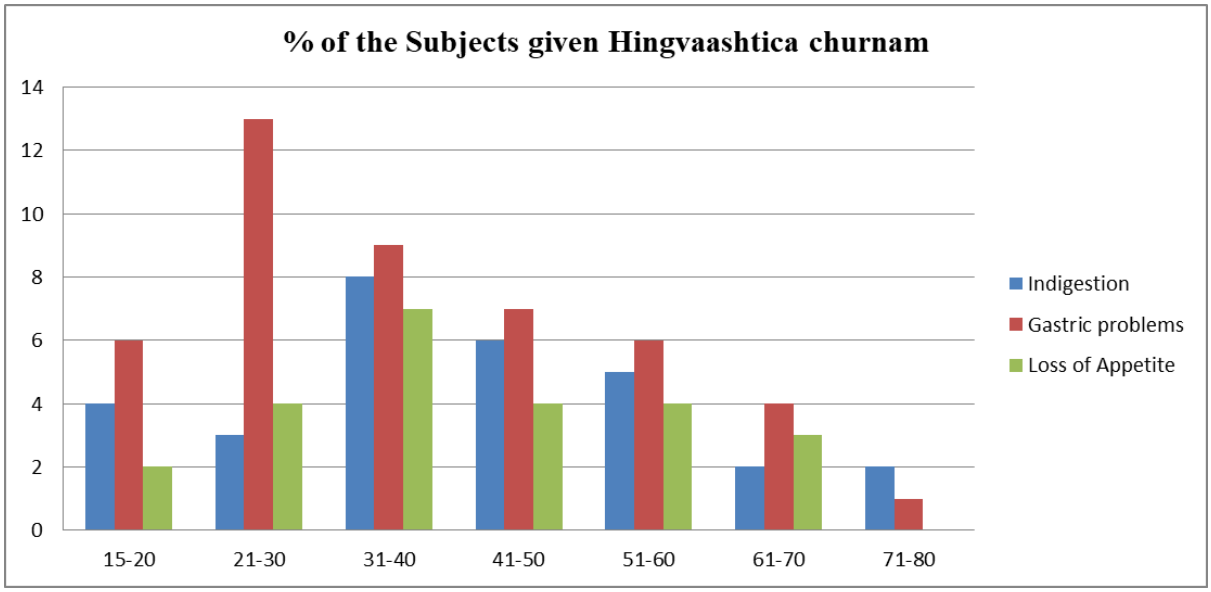
S.No.	Age Group	% of Effected
1.	15-20	12
2.	21-30	20
3.	31-40	24
4.	41-50	17
5.	51-60	15
6.	61-70	9
7.	71-80	3



- **Table 3 shows the percentage of the subjects effected**
- Among 15-20 years of age group, 12% of the subjects were effected.
- Among 21-30 years of age group, 20% of the subjects were effected.
- Among 31-40 years of age group, 24% of the subjects were effected.
- Among 41-50 years of age group, 17% of the subjects were effected.
- Among 51-60 years of age group, 15% of the subjects were effected.
- Among 61-70 years of age group, 9% of the subjects were effected.
- Among 71-80 years of age group, 3% of the subjects were effected.

Table 4: % of the Subjects given Hingvaashtica churnam.

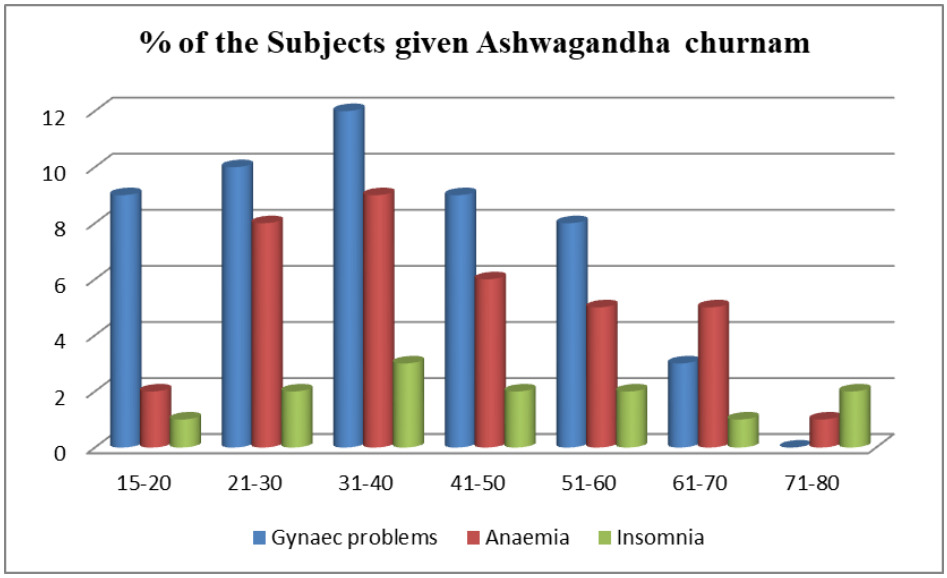
S.No.	Age Group	Indigestion	Gastric problems	Loss of Appetite
1)	15-20	4	6	2
2)	21-30	3	13	4
3)	31-40	8	9	7
4)	41-50	6	7	4
5)	51-60	5	6	4
6)	61-70	2	4	3
7)	71-80	2	1	-



- **Table 4 shows the percentage of the subjects given Hingvaashtica churnam**
- Among 15-20 years of age group, 4% of the subjects are suffering with indigestion, 6% are with gastric problems and 2% are with loss of appetite.
- Among 21-30 years of age group, 3% of the subjects are suffering with indigestion, 13% are with gastric problems and 4% are with loss of appetite.
- Among 31-40 years of age group, 8% of the subjects are suffering from indigestion, 9% are with gastric problems and 7% are with loss of appetite.
- Among 41-50 years of age group, 6% of the subjects are suffering from indigestion, 7% are with gastric problems and 4% are with loss of appetite.
- Among 51-60 years of age group, 5% of the subjects are suffering from indigestion, 6% are with gastric problems and 4% are with loss of appetite.
- Among 61-70 years of age group, 2% of the subjects are suffering from indigestion, 4% are with gastric problems and 3% are with loss of appetite.
- Among 71-80 years of age group, 2% of the subjects are suffering from indigestion, 1% are with gastric problems.

Table 5: % of the Subjects given. Ashwagandha churnam.

S.No.	Age Group	Gynaec problems	Anaemia	Insomnia
1.	15-20	9	2	1
2.	21-30	10	8	2
3.	31-40	12	9	3
4.	41-50	9	6	2
5.	51-60	8	5	2
6.	61-70	3	5	1
7.	71-80	-	1	2



- **Table 5 suggests the percentage of the subjects given Ashwagandha churnam**
- Among 15-20 years of age group, 9% of the subjects are suffering from Gynaec problems, 2% are with anaemia and 1% are with insomnia.
- Among 21-30 years of age group, 10% of the subjects are suffering from Gynaec problems, 8% are with anaemia and 2% are with insomnia.
- Among 31-40 years of age group, 12% of the subjects are suffering from Gynaec problems, 9% are with anaemia and 3% are with insomnia.
- Among 41-50 years of age group, 9% of the subjects are suffering from Gynaec problems, 6% are with anaemia and 2% are with insomnia.
- Among 51-60 years of age group, 8% of the subjects are suffering from Gynaec problems, 5% are with anaemia and 2% are with insomnia.
- Among 61-70 years of age group, 3% of the subjects are suffering from Gynaec problems, 5% are with anaemia and 1% are with insomnia.
- Among 71-80 years of age group, 1% of the subjects are suffering from anaemia and 2% are with insomnia.

Suggestions

- Educational Exhibitions & Outreach should be organized in schools, colleges, and community centers to introduce the benefits and science behind Ayurvedic medicine.
- Governments and scientific bodies must be encouraged to invest in in-depth research on herbal medicine and ensure quality regulation.
- Guest lectures and health talks should be facilitated by certified Ayurvedic professionals across educational and public platforms.
- Targeted awareness camps in rural and tribal areas must be launched, focusing on local plant knowledge and practical herbal applications.
- Subsidies, training, and financial assistance must be given to farmers for cultivating key medicinal plants used in Ayurveda.[4]
- Brochures, monographs, social media, TV, radio, and newspapers can be used to share credible and relatable information on Ayurvedic practices.
- Ayurvedic industries should be strengthened through government-backed marketing, funding, export promotion, and quality certifications.
- Innovative Promotional Strategies like door-to-door campaigns, digital adds, health-focused content in magazines and sponsored programming must be adopted to reach public.

CONCLUSION

This ethnobotanical study highlights the enduring relevance of traditional Ayurvedic formulations,

particularly *Hinguashtika Churna* and *Ashwagandha Powder*, in the holistic treatment of various ailments. The preparation techniques documented from the Addatheegala region reflect a deep-rooted indigenous knowledge system passed down through generations. Both powders exhibit significant therapeutic potential, particularly in managing digestive disorders, gynaec problems, insomnia -validating their continued use in modern herbal practice. Ayurveda has no side effects. It eliminates disease completely.

Ayurveda, known for its minimal side effects, aims not merely to manage disease but to eliminate it at its root.[5] More than a healthcare system, Ayurveda is a comprehensive lifestyle approach that fosters harmony between the physical, mental, emotional, and spiritual dimensions of well-being.[6]

By bridging local wisdom with scientific insight, this research underscores the importance of preserving, standardizing, and promoting such herbal formulations. There is a pressing need for further pharmacological validation, sustainable sourcing of medicinal plants, and greater community awareness.[7] Strengthening the support for traditional medicine not only enhances healthcare accessibility but also empowers local communities through the revitalization of their ethnomedical heritage.

REFERENCES

1. Sharma, P. V. (2000). *Dravyaguna Vijnana* (Vol. I & II). Chaukhamba Bharati Academy.
2. Government of India. (2001). *The Ayurvedic Pharmacopoeia of India* (Vol. I-VI). Ministry of AYUSH, Department of Indian Systems of Medicine & Homeopathy.
3. Bhat, R. B., & Jacobs, T. V. (1995). Traditional Herbal Medicine in Transkei. *Journal of Ethnopharmacology*, 48(1): 7–12. https://doi.org/10.1016/0378-8741(95)01291-8
4. Panda, H. (2002). *Herbs Cultivation and Medicinal Uses*. Asia Pacific Business Press.
5. World Health Organization (WHO). (2013). *WHO Traditional Medicine Strategy 2014–2023*. https://www.who.int/publications/i/item/9789241506090
6. Patwardhan, B., Warude, D., Pushpangadan, P., & Bhatt, N. (2005). Ayurveda and Traditional Chinese Medicine: A Comparative Overview. *Evidence-Based Complementary and Alternative Medicine*, 2(4): 465–473. https://doi.org/10.1093/ecam/neh140
7. Rao, M. L. (2005). *Tribal Ethnomedicine in Andhra Pradesh*. Tribal Cultural Research and Training Institute, Govt. of Andhra Pradesh.