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# TRADITIONAL KNOWLEDGE ON MEDICINAL PLANTS USED IN THE TREATMENT OF IMPOTENCY DISORDER AMONG GOND TRIBE IN NAGRI BLOCK, DHAMTARI DISTRICT, CHHATTISGARH, INDIA

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## ABSTRACT

This research explores the traditional knowledge of the Gond tribe in Nagri Block, Dhamtari District, Chhattisgarh, India, focusing on medicinal plants used for the treatment of impotency disorders. The Gond tribe, an indigenous community, has a rich heritage of ethno medicinal practices. Their reliance on natural remedies derived from locally available plants offers insights into sustainable and culturally significant healthcare solutions. This study documents the traditional knowledge of medicinal plants used to treat impotency disorders in Nagri Block, Dhamtari District, Chhattisgarh. The research was conducted across 23 villages, involving traditional healers, local chiefs, elderly individuals, and patients. The aim is to preserve indigenous knowledge systems, particularly those employed by the Gond tribe, and evaluate the potential applications of these remedies in modern healthcare. Given the sensitive nature of impotency as a health condition, the study also sheds light on culturally specific treatment methods using locally available medicinal plants.

**Keywords:** Gond, Chhattisgarh, Indigenous, Ethno medicinal, Impotency, medicinal plants, traditional knowledge, Gond tribe, ethnomedicine, Chhattisgarh, indigenous, plant-based remedies, reproductive health, sustainable medicine

## Introduction

Impotency, a condition affecting both reproductive health and emotional well-being, is often considered a taboo subject, particularly in rural and tribal communities. While modern medicine offers various treatments, indigenous knowledge systems provide alternative methods, often based on the use of locally available medicinal plants. The Gond tribe, an indigenous community in Nagri Block, Dhamtari District, Chhattisgarh, has long relied on these natural remedies to address various health issues, including impotency.

This study aims to document the traditional knowledge of medicinal plants used by the Gond tribe for treating impotency. It highlights the sustainable and culturally significant healthcare practices within the community and explores their potential applications in modern medical contexts. By focusing on plant-based treatments sourced locally, the study seeks to preserve indigenous knowledge and evaluate its relevance as an alternative or complementary approach to contemporary healthcare.

The research was conducted in Nagri Block, which spans 643.59 sq. km and is located in Dhamtari District, Chhattisgarh, with coordinates of 81°54' longitude and 20°78' latitude. This area is home to several tribal communities, with the Gond tribe being one of the most prominent. Their deep-rooted connection with the environment and extensive knowledge of local flora, passed down through generations, forms the basis for this study, which was conducted across 23 villages in the region.

## Methodology

The study adopted a qualitative ethnobotanical research approach to document traditional knowledge on medicinal plants used by the Gond tribe for treating impotency disorders. The research was conducted during 2015-2016 in 23 villages of Nagri Block, Dhamtari District, Chhattisgarh. The methodology involved the following steps:

1. **Participant Selection**:
   - A total of 465 participants were involved, including 300 household heads, 23 traditional healers, and 142 patients.
   - Participants were selected through purposive sampling based on their knowledge and experiences related to medicinal plants.
2. **Data Collection Methods**:
   - **Semi-structured Interviews**: Interviews were conducted with traditional healers, elders, and patients to gather information on plant species, parts used, preparation methods, and administration techniques.
   - **Participant Observation**: Field observations were carried out to document the process of plant collection, preparation, and use.
   - **Field Visits**: Regular visits to the villages and surrounding forests allowed the collection of plant specimens for scientific identification.

- **Herbarium Preparation**: Plant specimens were collected, preserved, and identified through taxonomic methods.

3. **Data Documentation**:

- Detailed notes were maintained on the local names of plants, preparation procedures, dosage, and precautions.
- Photographic documentation of plants and preparation methods was undertaken.

4. **Analysis**:

- Ethnobotanical data were analyzed to categorize plants based on their parts used, forms of preparation, and administration.
- Botanical identification of plants was conducted to ensure scientific accuracy, and findings were validated through a literature review.

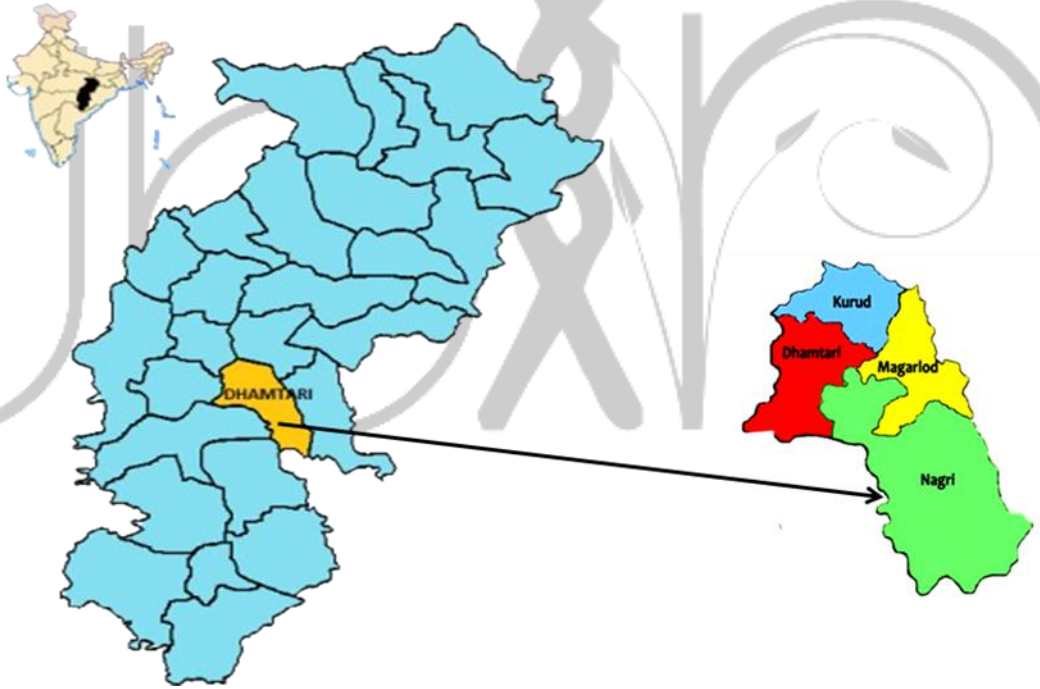


Figure 1 – Map showing of study area (Nagri block) Dhamtari District of Chhattisgarh state, India

**Table 1:**Below is a table representing the villages surveyed in Nagri Block, along with their respective distances from the central study area.

| S.No. | Location | Distance (km) |
|---|---|---|
| 1 | Bandha | 11 |
| 2 | Bhilbhadar | 7 |
| 3 | Bokrabeda | 13 |
| 4 | Damkadeah | 1 |
| 5 | Dugali | 13 |
| 6 | Hirrideah | 14 |
| 7 | Karahiyya | 45 |
| 8 | Kallemeta | 9 |
| 9 | Khadadah | 38 |
| 10 | Lakhanpuri | 11 |
| 11 | Mahuabahra | 13 |
| 12 | Palwadi | 38 |
| 13 | Panderwahi | 14 |
| 14 | Sahnikhar | 12 |
| 15 | Tangapani | 15 |
| 16 | Umargaon | 11 |

**Table 2:** This table provides a comprehensive summary of medicinal plants, including their botanical families, specific parts utilized, preparation techniques, and associated precautions for safe and effective use.

| | Local Name | Family | Scientific/ Botnical Name | Part Used | Form | Procedure |
|---|---|---|---|---|---|---|
| 1 | *Chitawar (Chitrak)* | Plumbaginaceae | *Plumbango zeylanica* | Fruit | Solid | i. Preparation: Ingredient is grinded to make powder<br>ii. Form: Solid<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be taken orally<br>v. Dosage/Duration: 5-7 gm. thrice a day |
| 2 | *Satawar* | Asparagaceae | *Asparagus racemosus* | Root | Solid | i. Preparation: Ingredient is grinded to make powder<br>ii. Form: Solid<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be taken with milk<br>v. Dosage/Duration: 5 gm. twice a day<br>vi. Advice: To take balanced diet |
| 3 | *Indrajau* | Apocynaceae | *Wrightia tinctoria* | Root | Solid | i. Preparation: Ingredient is grinded to make powder<br>ii. Form: Solid<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be taken with water<br>v. Dosage/Duration: 5 gm. thrice a day |
| 4 | *.Ashwagandha* | Solanaceae | *Withaniasomnifera* | Root | Solid | i. Preparation: Ingredient is grinded to make powder<br>ii. Form: Solid<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be taken with milk<br>v. Dosage/Duration:3-5 gm. twice a day<br>vii. Precautions: To avoid excessive dosage |
| 5 | *Babool,* | Fabaceae | Acacia arabica | Gum, leaves and fruit | Solid | i. Preparation: Ingredients are dried and grinded to make powder<br>ii. Form: Solid<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be taken with milk<br>v. Dosage/Duration: one teaspoon twice a day<br>vii. Precautions: To avoid excessive dosage |
| 6 | ***SafedMusli***<br>***Ashwagandha***<br>***Satawar***<br>***Mulethi*** | Asparagaceae<br>Solanaceae<br>Asparagaceae<br>Fabaceae | *Chlorophytum boricilianum*<br>*Withaniasomnifera*<br>*Asparagus racemosus*<br>*Glycyrrhiza glabra* | Root<br>Root<br>Root<br>Stem | Solid | i. Preparation: 10 gm. of ingredients are grinded along with *misri* to make powder<br>**ii. Form: Solid**<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be taken with milk<br>v. Dosage/Duration: One tea spoon twice a day for 1 month<br>vi. Precautions: Excessive dosage may disturbs the digestion process |

| | | | | | | |
|---|---|---|---|---|---|---|
| 7 | ***Kala Musli***<br>***Ashwagandha***<br>***Samalkand***<br>***BidariKand*** | Hypoxidaceae<br>Solanaceae<br>Malvaceae<br>Fabaceae | *Curculigoorchioides*<br>*Withaniasomnifera*<br>*Bombexmalabaricum*<br>*Pueraria tuberosa* | Root<br>Root<br>Tuber<br>Tuber | Solid | i. Preparation: 10 gm. of ingredients are grinded to make powder<br>ii. Form: Solid<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be taken with milk<br>v. Dosage/Duration: One-half teaspoon twice a day for 1 month<br>vi. Precautions: Excessive dosage may cause constipation |
| 8 | ***Bargad***<br>***Gular*** | Moraceae<br>Moraceae | *Ficus benghalensis*<br>*Ficus recemosa* | Bark<br>Bark | Solid | i. Preparation: Ingredients are mixed with *misri(Sugar)*<br>ii. Form: Solid<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be taken with milk<br>v. Dosage/Duration: 10 gm. once a day<br>vii. Precautions: To avoid sour food |
| 9 | *Kulanjan* | Zingiberaceae | *Alpinia galanga* | Root | Solid | i. Preparation: Ingredient is grinded to make powder<br>ii. Form: Solid<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be taken with honey<br>v. Dosage/Duration: 5-7 gm.twice a day<br>vii. Precautions:<br>a. To avoid sour food<br>b. To take half glass milk just after taking medicine |
| 10 | *Lajwanti* | Fabaceae | *Mimosa pudica* | Leaves and flowers | Solid | i. Preparation: Leaves and flowers of *Lajwanti* are taken<br>ii. Form: Solid<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be kept in mouth till sexual intercourse |
| 11 | ***Satawar***<br>***Kaunch***<br>***SafedMusli***<br>***Amla***<br>***Ashwagandha*** | Asparagaceae<br>Fabaceae<br>Asparagaceae<br>Euphorbiaceae<br>Solanaceae | *Asparagus recemosus*<br>*Mucuna pruriens*<br>*Chlorophytum borivilianum*<br>*Emblicaofficianalis*<br>*Withaniasomnifera* | Root<br>Seed<br>Root<br>Root<br>Root | Solid | i. Preparation: Ingredients are grinded to form powder<br>ii. Form: Solid<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be taken with milk or water<br>v. Dosage/Duration:5-7 gm. twice a day<br>vii. Precautions: To avoid medication, in case of fever |

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|---|---|---|---|---|---|---|
| 12 | ***Jaiphal***<br>***Majuphal***<br>***Nagkesar***<br>***Akalkara***<br>***Ajwain***<br>***Elaichi,*** | Myristicaceae<br>Fagaceae<br>Calophyllaceae<br>Asteraceae<br>Apiaceae<br>Zingiberaceae | *Myristica fragans*<br>*Quercus infectoria*<br>*Mesua ferrea*<br>*Spilanthesacmella*<br>*Ptychotis ajowan*<br>*Elettaria cardamomum* | Fruit and Flower<br>Fruit<br>Fruit<br>Root<br>Fruit<br>Seed | Solid | i. Preparation: Ingredients are grinded and mixed to form small tablets<br>ii. Form: Solid<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be taken with milk<br>v. Dosage/Duration: Two tablets twice a day<br>vii. Precautions: To take balanced diet |
| 13 | ***SafedMusli***<br>***Ashwagandha***<br>***Satawar***<br>***BidariKand***<br>***Gokhru,***<br>***Elaichi*** | Asparagaceae<br>Solanaceae<br>Asparagaceae<br>Fabaceae<br>Zygophyllaceae<br>Zingiberaceae | *Chlorophytum borivilianum*<br>*Withaniasomnifera*<br>*Asparagus racemosus*<br>*Pueraria tuberose*<br>*Tribulus terrestris*<br>*Elettaria cardamomum* | Root<br>Root<br>*Root*<br>Tuber<br>Fruit<br>Seed | Solid | i. Preparation: Ingredients are mixed and grinded to make powder<br>ii. Form: Solid<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be taken with milk<br>v. Dosage/Duration: 5-7 gm. twice a day<br>vii. Precautions: To avoid excessive dosage |
| 14 | ***Urad dal***<br>***Babool***<br>***Pista***<br>***Chiraunji***<br>***Kismis***<br>***Ashwagandha***<br>***Mulethi***<br>***Satawar*** | Fabaceae<br>Fabaceae<br>Anacardiaceae<br>Anacardiaceae<br>Vitaceae<br>Solanaceae<br>Fabaceae<br>Asparagaceae | *Vigna mungo*<br>*Acacia Arabica*<br>*Pistaca vera*<br>*Buchananialanzam*<br>*Vitis vinifera*<br>*Withaniasomnifera*<br>*Glycyrrhiza glabra*<br>*Asparagus racemosus*<br>*Cinnamomum tarmala*<br>*Plumbango zeylanica*<br>*Ficus religiosa* | Fruit<br>Gum<br>Fruit<br>Fruit<br>Fruit<br>Root<br>Stem<br>*Root* | Solid | i. Preparation: Urad dal is powdered and mixed with ghee till it turns to pink. Then the babool gum is fried in hot oil then after cooling it, soft dough has to be made. Now sugar syrup is formed then all the remaining ingredients are added in the powdered form in this syrup. Finally small balls are constructed with the help of hands.<br>ii. Form: Solid<br>iii. Administration: To be administered internally<br>iv. Directions for use: To be taken with milk<br>v. Dosage/Duration:40 gm.once a day<br>vii. Precautions: To avoid sour food and other medicines during<br>medication. |

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|---|---|---|---|---|---|---|
| | ***Tejpatti*** | Lauraceae | | | | |
| | ***Chitawar (Chitrak)*** | Plumbaginaceae | *Phyllanthus niruri* | Leaves<br>Bark | | |
| | ***Peepal*** | Moraceae | | Fruit | | |
| | ***Bhui –Amla*** | *Phyllanthaceae* | | Root with stem | | |

## Results and Discussion

The study identified 30 plant species from 20 families used by the Gond tribe in Nagri Block, Dhamtari District, to treat impotency disorders. The most commonly utilized plant parts were roots (20 species) and fruits (11 species), followed by leaves (3 species), tubers (3 species), bark (3 species), flowers (2 species), seeds (3 species), stems (2 species) andgum (1 species). Powders were the predominant form of preparation, administered orally with milk, water, or honey. In addition to herbal remedies, the treatments were culturally specific, blending traditional beliefs with practical applications, as seen with plants like Lajwanti (Mimosa pudica). Precautions included avoiding excessive dosages and adhering to dietary restrictions to enhance efficacy. The herbal preparations were mainly administered in the form of powders, juices, and pills. These findings highlight the tribe's sustainable healthcare practices, rooted in their deep ecological knowledge and reliance on locally available plants. This traditional knowledge offers potential for integration into modern healthcare as cost-effective, natural alternatives, emphasizing the importance of biodiversity conservation and cultural preservation.

## Conclusion

The study highlights the rich traditional knowledge of the Gond tribe in Nagri Block, Dhamtari District, regarding medicinal plants used to treat impotency disorders. The research documented 30 plant species from 20 families, revealing a deep-rooted understanding of local flora and its applications in healthcare. Roots and fruits were the most commonly used plant parts, and powders were the predominant form of preparation.

The findings emphasize the importance of preserving this indigenous knowledge for its cultural and medicinal value. Moreover, the documented practices offer potential for further research and integration into modern healthcare systems as alternative or complementary treatments. The study advocates for the conservation of biodiversity and the recognition of tribal contributions to traditional medicine.

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