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ETHNOZOOLOGICAL MEDICAL STUDIES AT GADCHIROLI DISTRICT (M.S.)

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ABSTRACT

Animals and plants have long been utilized as medicine by humans. Furthermore, animals are frequently used in the manufacturing of goods such as clothing, medicine, and other services. Since the dawn of civilization, people have used animals and animal products in traditional ways to treat illness and for a variety of other purposes. Ethno-zoology, often known as zoo treatment, is the practice of treating human illnesses with animal-derived materials. The purpose of this study is to highlight current knowledge on ethno-zoological therapeutic applications employed by local traditional healers in Gadchiroli District.

Keywords: Animals-based medicines, Ethno-zoology, Traditional knowledge, Tribal, Ethnobiology.

INTRODUCTION

The study of the interactions between humans and other species is the focus of the subfield of anthropology known as ethnozooology. In a nutshell, the most important feature is the utilization of animals and products derived from animals in traditional tribal medicine for the treatment of a wide variety of ailments. (Alves and Rosa 2005, Azami and Sinha 2012, Badge and Jain 2013) Several different indigenous Indian civilizations have made fruitless attempts to explain the medicinal impact of animals and products derived from animals (Alves and Rosa 2005). The medico-ethno-zoological system makes use of a diverse array of medications produced from animal sources. Studies have shown that these drugs have been effective in treating a wide range of human ailments. The modern society may stand to gain a great deal from indigenous ways of knowing.

Traditional medicine is the major form of medical treatment utilized by between 70 and 80 percent of the world's rural population, as stated by the World Health Organization in 1993.

According to Jamir and Lal (2005), many regions of the world continue to employ animals and animal products to cure patients with a wide variety of health concerns. This is the case despite the progress that has been made in the field of medicine. According to the World Health Organization (2014), the percentage of people who utilize traditional medicine ranges from 60 to 90 percent in developing countries, whereas the percentage is less than 10 percent in developed countries. According to Andrea, Lisa, and Ina (2005), the three traditional sources of animal-based medicines include the bodies or smaller parts of animals, metabolic wastes such as secretions or excreta, and other things such as nests, coconuts, honey, eggs, and so on. cow urine can be directly used as a disinfectant in household cleaning. Ascorbic acid (Vit C) from urine is beneficial for skin (Devkate et al., 2021). The indigenous peoples of this region are well aware of the myriad curative properties that can be derived from the broad variety of forest animals. Their knowledge is exclusively applicable to a single family, tribe, or segment of society because it is mainly undocumented and is passed down orally from generation to generation (Benarjee, Srikanta, Ramu, and Ramula (2010). This is why they have reached the stage of extension. It is of the utmost importance to research and categorize this one-of-a-kind and indigenous knowledge before it is lost completely for good, as several factors are contributing to the rapid deterioration of indigenous communities and their natural resources.

MATERIALS AND METHODS

Tribal territories that are located deep into the forest have been chosen to minimize contact with the so-called civilized population. Surveys were carried out to narrow the field of potential cooperating tribes down to those who still rely on the forest for their way of life. To establish a good report and collect data on the socio-cultural aspects of tribal life, the campsites were created in the tribal huts or tribal schools and each stay lasted for 10 and 12 days. Field surveys were done to gather information about the lifestyle of tribal people and their role in biodiversity protection.

The data was cross-checked with a variety of people in different parts of the research region and at different times of the year to ensure greater accuracy. To preserve local knowledge, the information was gathered through the use of tape recorders and questionnaires in the local languages.

OBSERVATION

Tribal people have traditional knowledge of animal use for various diseases.

The ethnozoological knowledge of the indigenous people of the Gadchiroli district identified 29 species that are used in various forms of folk medicine. Only six of these species were classified as invertebrates, but the other 23 were classified as vertebrates. There is one invertebrate that belongs to the phylum Annelida, four invertebrates that belong to the phylum Arthropoda, and one invertebrate that belongs to the phylum Mollusca. Within the group of vertebrates, two different kinds of animals were classified as birds but intestine bacteria of birds may be a source of zoonotic disease (Chavan et al., 2023), one as amphibians, six as reptiles, and fourteen as mammals.

The following is a list of the ailments that were treated with either a part of the animal's body or the animal's entire body by tribal community.

Sr.No.	Scientific Name	Common name	Parts used	Indication	Prescription
1	<i>Columba livia</i>	Pigeon	Flesh (Cooked)	Energy Booster	Using cooked flesh in a soup to enhance energy
2	<i>Melamphaus rubrocinctus</i>	Giant Red bug	Haemolymph	Cough & Cold	By gently pressing the abdomen, new hemolymph is squeezed out. Mix with water and consume.
3	<i>Gallus Sp.</i>	Jungle fowl	Wing & feather	Allergy	Burning feathers and applying the ash to the affected body part
4	<i>Hystrix sp.</i>	Porcupine	Bile	Stomach Ache	Dried & consume when needed.
5	<i>Cynopterus sphinx</i>	Bat	Flesh (Cooked)	Asthama, Cough & Cold	Cooked flesh and bone marrow consumption
6.	<i>Canis lupus familiaris</i>	Dog	Raw Blood	Dysentery & Diarrhea	A cut is made close to the ear, and the blood is drawn, collected, and consumed immediately.
7	<i>Sartoriana spinigera</i>	Red crab	Whole body	Body burn	Body broken up and combined with turmeric for seven days.
8	<i>Armadiliidum spp.</i>	Pill bug	Whole body	Cuts and wounds in domesticated animal	The entire body was dried, broken up, and fed to the animal.
9	<i>Pheretima spp.</i>	Earthworm	Whole body	Dysentery	Raw, crushed, and eaten right away.
10	<i>Pulmonata Spp.</i>	Snails	Whole body	For good eyesight	Whole body cooked in boiling water & eat.

11	<i>Apis spp.</i>	Honeybee	Whole body	Various diseases like cough, cold, dysentery etc.	Honey harvested from the honeycomb for direct consumption.
12	<i>Python Molurus</i>	Indian Python	Gall bladder	Burn, TB, Weakness	Smoke dried bile, combine with a little water, and consume for four days.
13	<i>Testudo spp.</i>	Tortoise	Head, Shell	Piles, Skin diseases	The entire body was fried and eaten.
14	<i>Rana sp.</i>	Frog	Body fat	Ear problem & Deafness	To treat ear problems, body fat is applied to the ear.
15	<i>Macaca spp.</i>	Macaque	Brain	Blood pressure, nausea	Cooked brain supports BP maintenance.
16	<i>Sciuridae sp</i>	Squirrel	Brain, Urinary bladder	Fever, Kidney stone	Eat the dried and cooked flesh of the brain and urine bladder three times per week.
17	<i>Capra hircus</i>	Goat	Excreta	Cuts, burns & early detachment of inborn umbilical cord	Water and fresh excreta are applied to the affected area.
18	<i>Rattus spp.</i>	Rat	Whole body	Allergies	Rat meat consumption reduces body itching
19	<i>Manis pentadactyla</i>	Pangolian	Scale	Piles	Scales are tied around the waist, either fresh or dried.
20	<i>Vulpes bengalensis</i>	Fox	Flesh	Body & joint pain	Whole body cooked & consumed

21	<i>Panthera tigris</i>	Tiger	Body Fat	Burn	A bamboo jar is used to store fresh body fat and to use it as needed.
22	<i>Naja naja</i>	Indian cobra	Flesh, Fat	Asthama, Bronchitis, TB	consumed after being boiled or prepared in little pieces
23	<i>Viper</i>	Chain viper	Scales	Loss of sexual vigor, menstrual irregularities	One serving of scale powder and honey every day.
24	<i>Ptyas mucosus</i>	Rat snake	Fat	Impotency	Twice daily massage with warmed fat oil.
25	<i>Python malurius</i>	Indian python	Flesh, Liver, Fat	Night blindness, vitiligo, conjunctivitis	Taken orally once daily with water and dried powder.
26	<i>Hemidactylus spp.</i>	Indian wall lizard	Flesh	Alopecia	Warm flesh oil is applied on the head once each day.
27	<i>Bos indicua</i> and <i>Bos bubalus</i>	Cow & buffalo	Limb bones & bone marrow	Body weakness	Limb bones are cooked into soup and eaten to increase vitality.
28	<i>Cervus unicolor</i>	Sambar deer	Flesh	Body weakness	Cooked flesh consumes.
29	<i>Homo sapien sapien</i>	Human being	Urine (Fresh Morning)	Toothache, cuts, burns, conjunctivitis	On treat toothaches, urine is put to the teeth. Administered urine to burns and wounds. Applying urine to the eyes will treat conjunctivitis.

RESULT AND DISCUSSION

The tribal population of Gadchiroli district possesses a significant body of ethnozoological knowledge, which encompasses numerous ethnomedicine practices related to 29 different species. Out of the total 29 animal species observed, 6 were classified as invertebrates and the remaining 23 were categorized as vertebrates. There is one invertebrate taxon that falls within the phylum Annelida, while four invertebrate taxa are classified under the phylum Arthropoda, and one invertebrate taxon is categorized under the phylum Mollusca. In the group of vertebrates, two organisms were classified as Aves, one as Amphibia, six as Reptilia, and fourteen as Mammalia.

According to Chutia (2010), indigenous communities employed various animals and their byproducts to address a diverse range of medical conditions, encompassing 44 distinct ailments. These conditions included but were not limited to piles, asthma, paralysis, cough, fever, bronchitis, menstruation issues, and conjunctivitis. In the realm of traditional medicine, a diverse array of animal components such as urine, blood, organs, flesh, body fluids, excrement, and other anatomical constituents were employed for the purpose of treating a broad spectrum of ailments. Badge and Jain (2013) presented a comparable report in the Chhindwara district of Madhya Pradesh. According to Chinlampianga, Singh, and Sukla (2013), the cohort comprising individuals between the ages of 60 and 70 exhibited the highest level of knowledge, while the group aged 50 to 60 demonstrated a somewhat lower level of information. Conversely, the age group ranging from 35 to 45 displayed the lowest level of knowledge. As individuals go through various stages of life, their knowledge regarding the utilization of several animal species in traditional therapeutic practices expands. The majority of the information was derived from the elderly individuals (Jamir and Lal 2005). It is commonly asserted that the majority of knowledge pertaining to traditional healing practices is derived from parental sources. Additionally, it was discovered that individuals in advanced age exhibit a higher propensity for engaging in the utilization of this particular form of traditional medicine compared to individuals belonging to other age groups. According to Mahawar and Jaroli (2006), a total of 109 animal species are utilized in traditional medicinal practices by various indigenous communities in India. Indigenous communities reside in close proximity to natural environments, relying on forest resources for sustenance, energy, medicinal purposes, and several other essential daily requirements. The indigenous population procured all necessary resources from the surrounding wilderness through the practices of capturing, killing and hunting. Tribal communities frequently employ animals for medicinal purposes, and their indigenous healthcare systems exhibit a notable degree of intricacy (Mahawar & Jaroli, 2008). Diseases have associations with both biological and sociocultural variables within society. Traditional healers employ their sensory perception to identify ailments, a remarkable feat considering their residence in geographically isolated regions, devoid of contemporary scientific therapeutic interventions. In contrast, the utilization of botanical and zoological resources for therapeutic purposes is employed in the management of various ailments. The research conducted by Mishra et al. (2011) in the Similipal Biosphere Reserve, located in Orissa, India, yielded findings that align with both ethno-zoological investigations and the identification of therapeutic advantages. The documentation of these species from an ethno-

zoological perspective holds significant importance in getting insights into indigenous knowledge about conservation efforts in the future.

The significance of animal-based medicine holds great importance within tribal societies. According to De and Kundu (2014), the majority of indigenous individuals who lack access to mainstream medical care services find it convenient to avail themselves of these services. Therefore, it is imperative to shift the emphasis away from strategies aimed at ensuring future utilization. Researchers need to acknowledge that biodiversity can be effectively utilized through the sustainable extraction of natural resources for their therapeutic properties. Additionally, it is imperative to adopt a transdisciplinary perspective to integrate the various components of zoo therapy. This approach would facilitate the exploration of frameworks and methodologies that effectively merge the ecological and social dimensions of this practice (Marques, 1994). To effectively conserve animal species, it is imperative to include conventional knowledge and information.

CONCLUSION

This study presents data about the utilization of animals in traditional medicine by local communities for a diverse range of ailments. Furthermore, it possesses the capacity to facilitate the practical implementation of animals in healthcare environments. Further investigation into the incorporation of scientific validation into traditional wisdom for pharmacological validation should encompass crucial elements such as taxonomy, ecology, conservation strategies, and faunistic resource management within the studied region. This comprehensive approach is necessary to obtain a holistic comprehension of the intricacies inherent in these traditional knowledge systems. Based on the findings, it can be inferred that there exists significant potential for further investigation into the bio-efficacy of ethno-faunal diversity throughout the Gadchiroli District.

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