INTRODUCTION

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INTRODUCTION

1.1 INDIGENOUS KNOWLEDGE SYSTEM

Indigenous pedagogy acknowledges diverse ways of knowing, and respects the pluralism of knowledge. There is no uniform approach or generic label assigned to traditional medicine; rather it is an acknowledgement of the geographic and cultural diversity within indigenous knowledge. The examination of traditional medicine includes articulating an indigenous knowledge approach to understanding what traditional medicine is and why it historically existed outside dominant institutions, biomedical models and Eurocentric paradigms. As defined in the report on the protection of the Heritage of Indigenous People "Indigenous knowledge is a complete knowledge system with its own epistemology, philosophy and scientific & logical validity which can only be understand by means of pedagogy traditionally employed by the people themselves" (Battiste and Handerson, 2000)

There are three common sources within indigenous knowledge enquiry. Mohwek Seholer, Marlene Brant and Castellemo (2000) suggest that indigenous knowledge has multiplicity of sources including traditional, spiritual and empirical (Dei, Hall and Rosenthal, 2000). The plurality of indigenous knowledge engages a holistic paradigm that acknowledges the emotional, spiritual, physical and mental well being of people. An indigenous knowledge framework is developed to address the critical issues of colonialism appropriating indigenous authority of misrepresentation and of using western cultural construct of "valid empirical research" to marginalize indigenous ways of knowing. (Dei, Hall and Rosenberg, 2000, Battiste and Handerson 2000, Smith 1999)

The term traditional medicine as identified by the world health organization:

"is the sum total knowledge, skill and practice based on the theories, beliefs and experiences , indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the
Prevention, diagnosis, improvement of the treatment of physical and mental illness."

( WHO / EDM / Traditional Medicine / definitions, modified; 30th October 2001)

Through a literature overview and an examination of aboriginal organizations traditional medicine policies and protocols, several central questions emerge. What is "traditional medicine" according to literature and academics? What is "traditional healer" and how do we identify a healer? How are existing aboriginal organizations using traditional medicine and practitioners, and how can this be compared to academic research? What are the emergent issues in the field of traditional medicine?

In the spirit of plurality and diversity, we frame traditional medicine as a practice of healing that is valid and diverse. There is no intention to establish monolithic representation of what traditional medicine is or how indigenous knowledge contextualizes these practices. The differences contained in this framework are best summed up by Marlene Brant Castellano:

"the knowledge valued in the aboriginal societies derives from multiple sources including traditional teachings, empirical observations and revelation. Aboriginal knowledge is said to be personal, oral, experimental, holistic and conveyed in narrative or metaphorical languages." (Castellano; 2000)

There are multiple sources of knowledge which assist us in how to explore traditional medicine. The development of an indigenous discourse creates a greater presence in research priorities, academia and policy making. It is crucial that indigenous scholars have the space and support to initiate an indigenous research agenda that will foster a holistic approach to health and wellness.
1.2 THE COMPLEXITY OF HOLISTIC APPROACH

Since traditional medicine is firmly grained in holistic beliefs and practices, any research must have multidisciplinary focus. The primary research must have emerged from diverse western academic discipline that include anthropology, sociology, native studies, social work, psychology, history, western biomedicine, religion and philosophy. One interesting fact is that some of the most developed literature was found within native justice research – it’s ironic that traditional medicine was often in prison.

Other non-academic sources (i.e. “non peer-reviewed journals”) further complicated the literature search of traditional medicine. The key host site for traditional medicine exists “outside” of western academics or medical institutions and within indigenous community urban or otherwise. Indigenous organizations such as Aboriginal Healing Foundation, Metis Resources Centre and Inuit Arctic College or Indigenous journals provided some literatures; these formed the Indigenous presence within the literature overview in the study. A related finding of the preliminary environment scan is that traditional medicine of fragmented and through colonial history has been hidden by the indigenous people from church, govt. and educational institutions for fear of retribution or even imprisonment (RACP, 1996). Historian Maurleen Lux elaborates upon the history of this relationship between church, government and indigenous communities.

The skeletal rational for repressing the dance was that they interfered with farm work and “unsettled” people. In truth Native People special knowledge of healing, which they gained vision and experience and passed on through the transfer of bundles at ceremonial dance camps, was being actively suppressed the construction of healer as quack and the dance is a barbaric waste of time served to justify repression of both. (Lux, 2001)
1.3 DEFINING TRADITIONAL MEDICINE

Another challenge of research in traditional medicinal practice is the lack of consistency and clarity in the terminology used by the authors to describe various beliefs and practices. Often the term traditional medicine is loosely applied to a variety of diverse activities that are not uniformly acknowledged among indigenous practitioners and their clients. It is useful exercise to discuss the variety of definitions that traditional medicine is, or is not accorded the latter being the case in most academic and non academic journals.

The World Health Organization estimates that the majority of the population of most non-industrial countries still relies on traditional forms of medicine for everyday health care. In many countries up to 80-90% of the populations are in this category. Medicinal plants and, to a lesser but important extent, animal products, form the material medica of these traditions.

Traditional health systems are based in world views or cosmologies that take into account mental, social, spiritual, physical and ecological dimensions of health and well being. Central importance on the concept of balance within the individual and between the individual, society and nature. Imbalance arises with the breaking of the inter connectedness of life - and results in discomfort and disease.

Traditional health systems have organized frameworks for classifying plants, animals, landscapes and climatic conditions in relation to their effects on health and disease. These taxonomies have much in common with one another and represent a culturally relevant empirical framework for assessing medicinal plant biodiversity. Such taxonomies may diverge significantly with western classificatory frameworks and assumptions. This is of importance when determining prior art as it pertains to intellectual property law.

Food and medicine are often viewed interchangeably. Food is medicine. Diet is the basis of health. Revitalization movements are drawing on traditional medical knowledge to develop integrated modern and traditional health care projects.
These movements and other groups have drawn attention to the shrinking availability of medicinal plants to supply the burgeoning need for herbal medicines in non-western societies and in the industrial countries. Conservation and horticulture programmes are emerging as vital components of the revitalization of local health traditions.

There is a need for coordinated effort by all engaged in medical plant use to generate new policies, mechanisms and resource flows to preserve the biodiversity used in caring for the health of the majority of the world's population. (Dr. Gerard Bodekar, Green College, University of Oxford, The Following are overheads presented at the Oxford Intellectual Property Research Seminar in St. Peter's College, Oxford, 25th January 2000)

Of all the literature reviewed, only a handful sources offered general descriptions of characteristics of traditional medicine and rarely defined the term. When reviewing literature, it is important to consider two points:

1. Term "traditional" is a British colonial concept, disliked by many Indigenous Groups.

2. Academics and institutional scholars introduced the term Indigenous People for North America. Most indigenous people would have relied on a complex set of medical practice and beliefs referred as "Medicine". Only the Europeans, with a mandate to separate the prioritize beliefs that were not tier own, utilized the term "Traditional"

A few academic articles attempted to "operationilize" the term "Traditional" in their empirical studies and sited a number of definitions. The authors tended to divide their discussion of medical practices into two time period, pre – and – post contact. The term "Traditional Medicine" has been therefore conceptualized in several ways. The report of Royal Commission on Aboriginal People (RACP, 1996) defines traditional healing;
Traditional healing has been defined as “practices designed to promote mental, physical and spiritual well being that are based on beliefs which go back to time before the spread of western, scientific, bio-medicine. When aboriginal people talk about their traditional healing they include a wide range of activities, from physical curse using herbal medicine and other remedies, to the promotion psychological and spiritual wellbeing using ceremony, counseling and the accumulated wisdom of elders. (RACP,1996,Vol.3,348)

Within the literature reviewed, different aspects of traditional medicine were discussed. A common term used by anthropologists is “Shaman” or “Shamanic Healing”. According to William Lyon’s Encyclopedia of Native American Healing (1998):

This is first scholarly work to survey the mystery powers of Native American Shaman with respect to healing. Its long overdue, in shifting through this evidence one sees that Shamanism has very definite cross-cultural patterns. That is, it is an organized system with definite rules of operation, because our understanding of Shamanic healing is rudimentary at best.…………… (Lyon, 1998)

Lyon situates shamanic healing as “irrational” but effective, and he is concerned with rituals where as other text are focused on Botany. Sometimes the discussion focuses on ritual practices on other time the pharmacology and botanical knowledge.

1.4 SPECIALIZED FIELDS OF PRACTICE WITHIN TRADITIONAL MEDICINE

Spiritualistic: - A Practice that focuses on the spirit health of an individual and intervenes on his / her behalf. Diagnosis often includes lifestyle changes of individual or family and offering to various benevolent spirits. Also, this person often serves as a counselor, mentor or teacher to individuals or families. Their
primary focus is on spirit well being of people. Their knowledge of culture is extensive and highly respected by the community, and they often carry titles of honor such as “faith keeper, holy person or priest”.

**Herbalist:** - A practice that emphasizes botanical and pharmacological knowledge of the indigenous plant and fauna. Often these individuals work closely with other indigenous doctors and assist in providing remedies for individual for whom they diagnose. Their practice can be highly specialized in one field, such as remedies for snake bite or as diverse as illness themselves.

**Diagnosis Specialist:** - A practice that often involve communication with spirits, the supernatural and physical entities that assist in diagnosis. Diagnostician are often the “seer” of communication through ceremony who identify the ailments, remedies or ceremonies that are required to restore good spiritual, emotional and physical health and well beings. Often they work as referrals to other specialists.

**Medicine Man / Woman:**- A practice that may often possess all the above gifts and more. Their work is usually engaged in ritual, ceremonial activity and prayer. In some societies they are identified as “medicine man / woman” because they possess sacred bundles, sacred pipes, sacred masks and the right to rituals, songs and medicine that have been inherited from their parents, grand parents or that they earned through apprenticeship with a respected medicine man or woman. Depending on their nation, they are also the conductor of the community ceremonies. It is normative for these individuals to sacrifice their daily lives to rituals, prayers and healing.

**Healer:** - A gifted individual who may heal in a variety of ways, including all of the above and or a “gift” of touch, or energy work – meaning that rituals are not always
needed. Healers can be ritualistic, but also may have an ability to use a variety of therapies to heal people spiritually, emotionally or physically.

**Midwife:** - Often these practitioners are women with specialized knowledge of prenatal care, birth assistance and aftercare. The midwife may employ the use of massage, diet medicine and rituals and counseling. Traditional midwifery exists worldwide and involves a variety of skills, often biophysical and ritual activities as well.

1.5 MODELS OF ETHNOMEDICAL HEALING SYSTEM

The term ethnomedicine “refers to the comprehensive study of indigenous or traditional medical system. Typical ethnomedical topic includes causes of sickness, medical practitioners and their roles and specific treatment utilized. The explosion of ethnomedical literature has been stimulated by an increased awareness of the consequences of forced displacement and / or acculturation of indigenous people, the recognition of indigenous health concept as means of maintaining ethnic identities, and the search for new medical treatments and technologies. In addition Kleimman (1995) finds ethnographic studies on “appropriate means of representing pluralism and of drawing upon those aspects of health and suffering to resist the positivism, the reduction, and the naturalism that biomedicine and, regrettably the wider society privilege. (Stanley Krippner, 2003)

Torrey (1986), in his exhaustive study of cross cultural practice, concluded that effective treatment inevitably contains one or more of four fundamental principles:-

1. A shared world view that makes the diagnosis or naming process possible.
2. Certain personal qualities of practitioners that appear to facilitate the patient’s recovery.
3. Positive patient expectations that assisted recovery.
4. A scene of mystery that empowers the patients.
If a traditional medicinal system yields treatment outcomes that its society deems effective, it is worthy of considerations by biomedical investigators especially those who are aware of the facts less than 20 percent of world populations are serviced by western biomedicine. However what is considered to be “effective” varies from society to society. Western biomedicine places its emphasis upon “curing” (removing the symptoms of ailments and restoring a patient’s health), while on the other hand traditional medicine focuses upon “healing” (attaining wholeness of body, mind, emotions and / or spirit). Some patients might be capable of being “cured” because their sickness is terminal. Yet, some patient’s could be “healed” mentally, emotionally and / or spiritually as a result of practitioner’s encouragement to review their life, find meaning in it, and become reconciled to death. Patients, who have been “cured”, on the other hand, may be taught procedure that will prevent a relapse or recurrence of their symptoms. This emphasizes upon prevention as a standard aspect of traditional medicine.

PUPULATION USING TM / CAM WORLDWIDE

[Graph:- 1.1]

[Population in developing countries using traditional medicine for primary health care.]
A differentiation can also be made between "disease" and "illness". From either biomedical or the ethnomedical point of view, one can conceptualize "disease" as a medicinal difficulty of the body resulting from injury or infections, or from an organism's imbalance with its environment. "Illness" however is a broader term implying dysfunctional behavior, mood disorders or inappropriate thoughts and feelings. These behaviors, mood, thoughts and feelings can accompany an injury, infections or imbalance or can exist without them. Cassell (1979) goes so far as to claim that allopathic biomedicine treats disease but not illness, "physicians are trained to practice a technological medicine in which disease is their sole concern and in which technology is only a weapon".

Comparison between biomedicine and ethnomedicine can be made utilizing hypothetical structure such as 12 faceted model proposed by Miriam Seiglar and Humphery Osmond (1974). In the social and behavioral science, a "model" is an explicit or implicit explanatory structure that underlies a set of organized group behaviors. Their use in science attempts to improve understanding of the process they represent. Models have been constructed to describe human conflicts, competitions and cooperation. Models have been proposed to explain mental illness, personality dynamics and family interactions. Stanley Krippner (2003) modified the Seiglar / Osmond model, making it applicable to both physical and
mental disorders although non western traditions usually do not differentiate between the two. The utility of Seiglar / Osmond can be demonstrated by comparing shamanic medical model an eclectic folk healing model and the western biomedical model on 12 dimensions:-

**Diagnosis:** - Diagnosis is made on the basis of the history of the ailment, the symptoms and retrospectively by the response to treatment. Diagnosis may involve natural, psychological and / or spiritual procedure.

**Etiology:** - Etiology or cause of the sickness depends on the type of the problem that is being treated. One type of indisposition is untreatable because the body’s self healing capacities deal with it (e.g. constipation, indigestion, venomous bites) or because treatment is futile (e.g. mental retardation, infant deformities). Other type of ailments is amenable to treatment; the ailment may be a “wandering sickness” (caused by impurities that “wander” through the body) or a “staying sickness” (caused by improper behavior towards such power objects as buzzed feather or road runner bird). Etiology can also be natural, psychological or spiritual. The role of bacteria and viruses is taken granted as possible causal factor.

**Patients Behavior:** - The patient’s behavior provides important clues for diagnosis and treatment. Wandering sickness entails such sickness as fever, hives, piles or sores. Staying sickness can be identified by compulsive or erratic actions as well as lethargy or self destructive activities. The former ailment can be passed from one person to another, in contrast to latter.

**Prognosis:** - Prognosis or anticipated outcome is hopeful if the treatment is appropriate, prompt, and powerful.
Death and Suicide: - If the treatment does not work, or the patient’s conditions can not be successfully treated, premature death may result or the indisposition may continue. Suicide can result from staying sickness.

Function of the Institutions: - Treatment is attempted in an environmental setting prepared by shaman. The function of the institution, whether it is the home of the shaman, the home of the patient, any divine place, is to reflect the divine order and in doing so, to facilitate the patients recovery.

Personnel: - Rights and Duties of Patients: - The patient’s rights and duties are work closely with the shaman following his / her direction carefully.

Right and Duties of Family: - The family’s right and duties are of great importance because familial allegiance and obligations are overriding cultural values.

Right and Duties of Society: - The society’s right and duties are to support a patient’s recovery because the entire community is concerned and affected when a member is ill.

Goal of the Model: - The ultimate goal of each ethnomedicine is to assist the recovery of the patients, restoring his / her balance within a social framework that presents the tradition of the family and the culture.

In April 1995, the office of the Alternative Medicine of the United States National Institute of Health held a conference on research methodology. The charge of this conference was to evaluate research needs in the field of Complementary and Alternative Medicine (CAM). The penal defined CAM (Complementary and Alternative Medicine) as follows: -

"Complementary and Alternative Medicine (CAM) is a broad domain of healing resources that encompasses all the health systems, modalities
and practices and their accompanying theories and beliefs, other than those instincts to politically dominant health system of a particular society or culture in a given historical period. CAM includes all such practices and ideas self defined their users and presenting or treating illness or promoting health as well being”. (O’Conner et. al. 1997)

The second charge of the penal was to establish a list of parameters for obtaining through descriptions of Complementary and Alternative Medicine system. The first was constructed into 14 categories first conceptualized by Hufford (1995).

1. Lexicon: - What are the specialized terms in the system?
2. Taxonomy: - What classes of health and sickness does the system recognize and addresses?
3. Epistemology: - How was the body of knowledge derived?
4. Theories: - What are the key mechanisms understood to be?
5. Goals of Interventions: - What are the primary goals of the system?
6. Outcome Measures: - What constitute successful interventions?
7. Social Organizations: - Who use and who practice the system?
8. Specific Activities: - What do the practitioners do? What they use?
9. Responsibilities: - What are the responsibilities of practitioners, patients, families and community members?
10. Scope: - How extensive are the systems application?
11. Analysis of Benefits and Barriers: - What are the risk and the cost of the system?
12. Views of Suffering and Deaths: - How does the system view suffering and deaths?
13. Comparison and Interactions with other Dominant systems: - What does this system provide that the dominant system does not provide? How does the system interact with the other dominant system?
1.6 INDIAN SCENARIO

In India, the traditional medicine has a long history and is very deep rooted. It was practiced much before the beginning of Christian era and perhaps in the pre Vedic periods to which belongs Mohan-Jo-Daro and Harappan civilization. Written records of use of plants for causing human and animal disease in India can be traced back to the earliest (4500 ~ 1600 B.C.). Scriptures of Hindus, the Rigveda, Ayurveda the Indian indigenous system of medicine dating back to the Vedic ages (1500 ~ 800 B.C.) has been an integral part of Indian culture (Dixit 1982). The Vedic Aryan were familiar with the medicinal plants, several plants were described in Atharva Veda. This was followed by monumental ancient treaties on the subject like “Charak Samhita” (1000 ~ 800 B.C.), Shushrut Samhita (800 ~ 700 B.C.), Vighatta Astans Hridaya. (Sinha, 1998)

Some knowledge of ancient Indian medicine and the medicinal herb have descended generations and survived through times among primitive human societies of the day. These are aboriginal tribal communities of India. The circumstances under which these people live such as scarcity of food, poverty, want of medicine and other basic need of life combined with their natural curiosity towards their closest neighbor – the plants. Among which they lived and sought their help in mitigating their woes and sorrows must have been the essential factor in presenting the knowledge of medicine herbs and their utility to mankind. The knowledge they inherited from their ancestors and also by their own experience and have been passed on from generation to generation as folklore among these people.

Although traditional medicine flourished in India for a quite long time yet for a while it was subdued under the impact of modern medicine. With the coming of chemical revolution in the world and the boom of synthetic medicines, the faith in and the popularity of traditional medicine gradually declined. But as science revealed the great hazards of synthetic medicines on human health combined with
their high cost is beyond the reach of common people. The traditional herbal medicine has once again started gaining importance all over the world but especially in developing countries. In India large part of rural and backward population still depend upon indigenous folk practice. Even the urban populations suffering from chronic disease after loosing hopes from modern medicine turn their eye towards folk and indigenous medicinal systems. The accomplishment of forest dwellers in understanding plants and properties of their roots, stem, leaves, flowers and fruits is simply a result of long intimate association with their flora and their dependence on them. Since their knowledge is based on experimentation on human beings though highly empirical, it warrants careful consideration. It behaves so as to take advantages of their extensive knowledge and still exist in many parts of the world for scientific scrutiny and adaptation for posterity tests it be lost under the debris under the modernism. There is need to chemically and pharmacologically analyze known biodynamic species and see their physiological effectiveness. A few may yield drug for modern medicine to treat the same conditions for which they used traditionally and may lead to discovery of new chemical compound. (Alam, 1997).

The studies of use of plants by traditional societies of the world (the ethnic people) for various purposes gave birth to a new interdisciplinary science called “ethnobotany”. It was first applied by J.W. Harshberger in the year of 1895 to the study of “Plants used by the primitive and aboriginal peoples”. It deals with the direct traditional and natural relationship between human societies and plants (Trivedi, 2002). The modern approach to the science of ethnobotany evolved in USA and the foremost centre for the botanical aspect is the Botanical Museum of Harvard University in Massachusetts. Here ethno botanist like Richard Evans Schulter, Richard Gorden Wassan, Siri Van Reis Altschul, Timothy Plowman, E. Wade Davis etc. contributed in various fields of ethnobotany.
In India, the organized study of ethnobotany is of recent origin. Studies on ethnobotany were initiated in India by Dr. E.K. Janki Ammal as an official programme in Economic Botany Section of Botanical Survey of India since its inception in 1954. From 1960 Dr. S.K. Jain who deserves to be called as the “father of Indian Ethnobotany” started intensive field studies moving in the deep tribal villages of India, studying their medical practice and recording their use of medicinal plants against various diseases. Some of this important works are the tribal of Madhya Pradesh, Bihar and Assam. The publication from his group in the early sixties triggered ethnobotanical activities in many other centres particularly among botanist, anthropologist and Ayurvedic medical practitioner. (Lalramanghinglova and Jha; 2000)

1.7 OBJECTIVES OF THE STUDY

Chhattisgarh state is recognized as one of the predominant tribal state in India, consisting of about 1/3 of the total tribal population as per census 2001. The state is endowed with rich forest resources (44%) mainly of Sal, Teak, Bamboo and Mixed forest. The forest of the state is recognized as rich biological reservoirs of many medicinal and aromatic plants resources. Since immemorial times the tribal in the state utilizes a large number of plants species occurring in these forest as herbal medicine for curing various diseases and health disorders. Keeping in mind above importance, the present study entitled “The traditional Medicinal System of Saora Tribe of Raipur Division” was carried out with following objectives:-

1. To ascertain the reasons for using traditional medicines.
2. To know what type of disease ailments people seek service from indigenous practices.
3. To document the oral traditional knowledge of tribal medicine.
4. Impact of Modern Medical System on Saora Tribal Community.
5. To document the different facilities, infrastructure available in study area provided by the state and private bodies.

6. To collect, identify plants, animals and other material used by the tribe for medicinal purpose.

7. To review the chemistry and toxicity of active components of herbs under study.

8. To know common disease and their treatment by local herbal therapy.

9. To know the recipe of crude herbal drug preparation by the tribe of this area.

1.8 IMPORTANCE OF THE STUDY

Present research work focuses on the factors influencing the health and disease of the tribe. It also helps us to know the health related problem and belief system of the tribe. The major aspects of the study are to document the herbs, oral traditional knowledge of medicine and other methods of health care practices and curing illnesses. Study of medicinal system of tribal communities and their health problems is very relevant in view to acquiring knowledge of health care practices of this section of population and also such information carry obvious policy and planning as well. These types of studies can pit-falls inherent in the policies and programmes for tribal health care and can suggest remedies for rectifying these drawbacks. According to Choudhari “data on tribal health, concept of disease and nature of treatment are rather scanty and specific study on this topic with reference on the tribal covering the different facts practically non-existent” (1986)

The studies of the health problems need special attention in context of tribal communities in India, because most of the Indian tribes are backwards with little social and material development and are living in remote areas where modern health facilities are rarely available. Studies illuminating the health problems and medical practices existing in those tribal communities can provide answer whether...
the current health care practices followed in those communities are responsible for such situation.

The medical practitioner and public health worker belonging to different parts of our country have been reporting that very often the tribal do not utilize the medical, preventive and family planning facilities available to the. This is an important dilemma for the health planner and medical practitioners of our country. The solution to this intricate problem can be reached only through a systematic study of the tribal concept of etiology treatment of disease and the role of physician in curing procedure.

Tribal mostly use herbs as medicine for curing their illnesses. The result obtained through a systematic study of health care concept of tribal community will be helpful to planner and policy makers to formulating suitable plans for the tribal communities.

After the declaration of Chhattisgarh an herbal state the present study will be also beneficial for the state Government when they are thinking towards tribal health or their indigenous knowledge regarding health care.

Often cases of accidental poisoning by inhaling crude drugs are being reported in the literature of Forensic Science Journals. Present study will also be useful for the scientist working in the forensic science laboratories when they handle the cases related to vegetable or plant poisoning.
1.9 REVIEW OF LITERATURE

Any ethnobotanical or traditional medicinal study requires illustration in broad areas of health seeking behavior, socio-cultural aspect of the community, socio-economic assessment of the study group, taboos and belief system associated with health care practices. This section along with review of literature also examines the research gap in study of traditional medicinal system and ethnomedicinal practices. There have been a lot of endeavors by many anthropologists; medical anthropologist, ethno botanist as well as social scientist over time to find out the various mechanisms involved in the process of traditional medicinal system and ethnomedicinal practices.

Mohanty and Mohapatra (2002) carried out a study in Saora Tribal community and reported 42 medicinal species, used widely for various ailments. They also documented their concept of disease and medicine.

Joseph and Kharkongor (1981) carried out a preliminary ethnobotanical survey in Khasi and Jaintia hills in Meghalaya. They recorded 100 plant species of medicinal importance used by the local inhabitants for curing different diseases. Some of the documented flora includes Acorus calamus, Salmalia malabarica, Asparagus racemosus, Achyranthes aspera, Mucuna pruriens, Berberis asiatica, Zanthoxylum armatum, Cordia dichotoma, Costus speciousus, Gloriosa superba, etc.

Oommachan et al. (1989) made an ethnobotanical observations during 1986-1989 in the tribal forest areas of 20 districts of Madhya Pradesh. A total of 171 wild plants belonging to 70 Angiosperm families were collected, identified and their ethnomedicinal uses were noted. The documented flora includes Asparagus racemosus, Calotropis procera, Aegle marmelos, Andrographis paniculata, Canscora diffusa, Celastrus paniculatus, Cissampelos pareira, Curcuma aromatic, grewia hirsuta, Mucuna pruriens, etc.
Barrett (1994) investigated the medicinal plants of Nicaragua’s Atlantic coast. He reported that 152 plant species are used by the people of Nicaragua’s Atlantic coast for the treatment of various diseases. The diversity and the prevalence of medicinal plant utilization for this region have been reported for the first time.

Avery Charlene (1991) elaborates on the philosophical principles of Native American traditional healing practices. She explains the wide range of diversity and specialties that existed in North American Traditional Health Care System.

Singh (2000) carried out a study on the potential pteridophytes of India. Results of the investigation revealed that more than 200 species of pteridophytes are being used by the tribals of different regions of India for the treatment of various ailments like cancer, rheumatism, diabetes, inflammation, convulsant, fertility and as diuretic, anthelmintic, aphrodisiac, hepatoprotective, sedative, antipyretic etc. The most important among these pteridophytes are Acrostichum aureum used for wound healing, Asplenium adiantoides used as anticancer, Ceterach officinarum used as diuretic, Cibotium barometz used in kidney disorders, Nephrolepis biserrata used in Jaundice, etc.

Rahman (2000) performed an ethno-medico-botanical survey among tribals of Bangladesh and reported 53 vascular plants being used by 19 major tribes namely Chakma, Marma, Tripura Murong, Pankhoa, Khumi, Ohisui, Bhome, Chack, Khyang, Rhyang, Lushai, Shautal, Rakhain, Cooki, Gharo, Tanchunga, Manipuri, Khasia and Hazong. The results of the investigation revealed that these plant species are used by these tribals for curing several diseases like diarrhoea, dysentery, gastric ulcer, intestinal worms, fever, malaria, jaundice, cough, bronchitis, asthma, headache, toothache, wounds and sores, boils, skin diseases, snake bite, mental disorders, abortion and some gynecological ailments.

Siwakoti and Siwakoti (2000) studied the ethnomedicinal plants and reported 122 species of plants belonging to 114 genera and 57 families used by Satar tribe of Nepal. Results of the investigation revealed that among these 122 medicinal plant
species, some are rhizomatous herbs such as *Acorus calamus*, some are deciduous trees such as *Alangium salviifolium*, some are evergreen trees such as *Alstonia scholaris*, some are herbs such as *Caladium bicolor*, some are climbers such as *Diplocyclos palmatus* and some are aromatic undershrubs such as *Pogostemon benghalensis*.

Rana *et al.* (2000) highlights the traditional phytotherapy of twenty-eight indigenous medicinal plants for the treatments and control of diabetes among the different tribals and rural population of India. Results of investigation indicates plant species such as *Asparagus racemosus*, *Bacopa monnieri*, *Baugainvelia spectabilis*, *Butea monosperma*, *Cajanus cajan*, *Catharanthus roseus*, *Cissampelos pareira*, *Coccinia grandis*, *Cocculus hirsutus*, *Clerodendrum multiflorum*, *Gymnema sylvestre*, *Mukia maderaspatana*, *Syzygium cumini* etc. are consistently are used for diabetes by most of the tribals and other rural communities. Certain species like *Aegle marmelos*, *Allium cepa*, *Ficus benghalensis*, *Momordica charantia*, *Pterocarpus marsupium* are used only casually by one or two tribes.

Pal *et al.* (2000) studied the medicinal plants and plant products used in pediatric problems among aboriginals in India. As per the results of the investigation 120 medicinal plant species such as *Alpinia galanga*, *Azadirachta indica*, *Butea monosperma*, *Argemone maxicana*, *Ficus benghalensis*, *Helicterus isora*, *Vitex negundo*, *Embelia ribes*, *Cassia fistula*, *Acorus calamus*, *Zanthoxylum armatum*, *Indigofera tinctoria*, *Terminalia alata*, *Cissampelos pareira*, *Cassia tora*, *Shorea robusta* etc are used by the aboriginals for pediatric problem control in India.

Goel and Rajendran (2000) carried out ethnobotanical studies on the tribal communities living in two relatively distinct and isolated geographical regions of the country. Results on investigation revealed that 20 plant species namely *Abrus precatorius*, *Adhatoda zeylanica*, *Andrographis paniculata*, *Asparagus racemosus*, *Calotropis gigantea*, *Celastrus paniculatus*, *Cissampelos pariera*, *Eclipta prostrata*,
Plumbago zeylanica, Terminalia arjuna etc have been used by these tribals to cure similar or different ailments. Sharma and Rana (2000) recorded the ethnobotanical, Ayurvedic and pharmacological uses of 27 plant species used in rural areas in Himachal Pradesh. Results of the study revealed that some plant species like Aconitum chosmanthum, Adiantum philipense, Angelica glauca, Helianthus tuberosus, Girardinia diversifolia, Nepeta cataria, Prunus armeniaca, Silene cucubalus, Pyrus pashia etc., are commonly used by these rural people for curing various diseases and disorders. Singh (2000) carried out an ethnobotanical study of useful plants of Kullu district in North-Western Himalaya and reported 109 plant species belonging to 41 families and 86 genera. Of the total recorded species, one species belongs to fungi, one to pteridophytes, 6 to gymnosperms and 101 to angiosperms. Ninety species were found inside the forest boundary while 16 species were maintained around the settlements and farm fields. Of the total enumerated species, 73 species were found to be used to cure variety of diseases. The preparation, utilization, distribution along with family, scientific and local names and their role in traditional wisdom for the health has been discussed. Singh (2000) carried out studies on important aspects of ethnobotany of the Tharu tribe of sub Himalayan region of Eastern Uttar Pradesh. This ethnobotanical survey provided information of 118 medicinally important plant species belonging to 103 genera and 57 families. Among these plant species, the important ones are Abrus precatorius, Achyranthes aspera, Acorus calamus, Aegle marmelos, Agave americana, Albizia lebbeck, Annona squamosa, Asparagus racemosus, Basella alba, Madhuca longifolia, Ficus benghalensis, Salmalia malabarica etc. Arya and Prakash (2000) carried out ethnomedicinal studies of a remote tribal area of Almora district of Uttar Pradesh. The results from the investigation revealed 22 plant species being used by the tribal people in Jhuni village and its adjoining areas for curing various health related problems. Some valuable medicinally important
plant species such as *Aconitum heterophyllum*, *Berberis asiatica*, *Mucuna pruriens*, *Zanthoxylum armatum*, *Polygonum amplexicaule* and *Urtica dioica* were found frequently in Jhuni village and its adjoining areas.

Rosakutty *et al.* (2000) studied some traditional folklore medicinal plants of Kanyakumari district in Tamilnadu and reported 74 medicinal plant species belonging to 64 genera and 43 families. The information was collected through field trips and personal interviews with vaidhyas, naturopaths and local people who use them as home remedies. Among these, some of the important species are *Abutilon indicum*, *Achyranthes aspera*, *Aegle marmelos*, *Aristolochia indica*, *Bacopa monnieri*, *Phyllanthus fraternus*, *Solanum nigrum*, etc.

Alagesaboopathi *et al.* (2000) made an ethnomedicinal observation on the tribals of Shevaroy hills in Tamilnadu and documented 23 plant species utilized by the tribals of area for curing various diseases and health related problems. The medicinal plant species documented include *Abutilon indicum*, *Capparis sepiaria*, *Indigofera cassioides*, *Oxalis corniculata*, *Sapindus emarginata*, *Smilax perfoliata*, *Tephrosia purpurea*, *Toona ciliata*, *Plumbago zeylanica*, etc.

Subramaniam (2000) conducted a survey of medicinal plants in Dharmapuri district Tamilnadu and documented 106 plant species belonging to 91 genera and 54 families. The collected flora include *Abutilon hirtum*, *Achyranthes aspera*, *Adiantum incisum*, *Calotropis gigantea*, *Cissus quadrangularis*, *Coccinea grandis*, *Dalbergia sissoo*, *Datura metel*, *Delonix regia*, *Ficus hispida*, *Leucas aspera*, *Morus alba* etc.

Satapathy and Brahman (2000) studied some interesting phytotherapeutic claims of tribals of Jajpur district of Orissa and revealed that these tribal people are very primitive by all standards and depend on plant remedies for their ailments. The results from the investigation reported 42 wild and domesticated plant species having interesting ethnomedicinal applications. Some of collected flora from the area includes *Aegle marmelos*, *Andrographis paniculata*, *Azadirachta indica*, *Calotropis*
gigantea, Cassia fistula, Diospyros melanoxylon, Nyctanthes arbor-tristis, Mimosa pudica etc.

Panda and Das (2000) during an ethnomedicinal survey of plant-lore of the tribals of Baliguda sub division of Phulbani district, Orissa reported folk-medicinal uses of 60 plant species recorded from Kondh, Gond, Lodha, Amanatya and Saura tribes inhabiting the area. The documented flora includes Alangium salviifolium, Anogeissus latifolia, Argemone maxicana, Asparagus racemosus, Bauhinia purpurea, Butea monosperma, Cassia fistula, Capparis zeylanica, etc.

Bora (2000) studied the ethnomedicinal uses of plants among the Bodo tribe of Sonitpur district of Assam and documented 34 plant species used by these tribal people for curing various diseases and ailments. The documented flora includes Acacia catechu, Alpinia nigra, Asparagus racemosus, Calamus tenuis, Cajanus cajan, Cuscuta reflexa, Jatropha curcus, Sida rhombifolia, Ricinus communis etc.

Reddy et al. (2005) conducted phyto-diversity studies on the flora of Kondapalli fort in Krishna district (A.P.). Exploration trips were undertaken during the year 2003 for ethnobotanical studies and germplasm collection of the traditional Ayurvedic medicinal plants. 36 medicinal plant species belonging to 21 families have been enumerated highlighting local medicinal uses practiced by local tribals and villagers since ages.

Reddy et al. (2005) carried out an ethnobotanical investigation of certain orchards of Eastern Ghats of Andhra Pradesh during 1995-2001 covering Chittoor, Cuddapah, East Godavari, Guntur, Khamman, Krishna, Kurnool, West Godavari and Visakhapatnam districts. The studies resulted in the collection of 21 species of orchards spread out in the forests and used by local ethnic groups for curing various diseases and ailments.

Prasad et al. (1988) studied the ethno-medico-botany of indigenous plants used by local tribes in central India. Information on 14 plant species were recorded to be
used by the tribal people for curing common diseases like cough, cold, dysentery, fever, diabetes, asthma piles, urinary problem etc.

Capitanio, et al. (1989) has reported 100 anti-leucodermic traditional herbal medicines consisting of 80 medicinal plant species being employed by caucasians in the Mediterranean area. The possibility of recorded plant species in stimulating physiological skin pigmentation is described in the light of present phytochemical and pharmacological knowledge. Some of these plants are reported to contain erythemogenic substance responsible for inducing light mediated hypermelanogenesis for colouring epidermal keratin.

Pandey and Shrivastava (1993) made an ethnobotanical observation on several plants of Patalkot valley being used by Bharia tribe. A total of 48 plant species were observed to be used by this tribal community for curing common diseases like fever, Jaundice, Leprosy, Paralysis, Cough, Cold etc.

Maiti (1993) studies the cognition of disease and curing behaviour of the people of Bhagwanpur and Nandigram villages in Midnapur district of West Bengal. The study reveals that the herbal medicine still carries great prestige among the people of these villages and several medicinal plants are being used to cure different diseases and health related problems like malaria, dysentery, fever, cough and cold, worms, blood dysentery, cholera and gynaecological problems.

Jain and Singh (1997) carried out an ethno-medico-botanical survey of tribal area of Ambikapur district in Madhya Pradesh during 1990-1991. The study resulted with the information on 40 medicinal plants used against different diseases and health disorders like leucorrhoea, tuberculosis, gonorrhoea, elephantiasis, urinary disorders, stomach, ulcers and chest pain etc.

Devarapali and Yathiraj (1998) carried out an ethnomedicinal investigation on Chenchus tribe of Andhra Pradesh. The study revealed that variety of medicinal plant species are being used by these people for curing common diseases and
health disorders like infection, gastric problems, sores and ulcers, nutritional deficiencies, malfunction of body organs and accidental attacks by reptiles and wild animals.

Siwakoti and Siwakoti (2000) made an investigation entitled ethnomedicinal uses of plants among the Satar tribe of Nepal. Results obtained revealed that 122 plant species are used as medicine by Satar tribe of Nepal for curing various disease and health disorders. The important plant species reported are Abrus precatorius used to cure urinary disorders, Achyranthes aspera is used as an antidote against snakebite and scorpion sting, Blumea lacera used to cure wounds, Butea monosperma used to cure tuberculosis, Gmelina arborea used to cure dysentery, Leucas indica used to cure asthma, Viscum nepalense used to cure fracture, Plumbago zeylanica used to cure antifertility etc.

Pal et al. (2000) carried out a study on medicinal plants and plant products used in children diseases among aboriginals in India. Results of investigation revealed that 120 medicinal plant species were immensely used by the aboriginals for curing various children diseases like skin diseases, intestinal worms, eye diseases, fever, earache, measles, chicken pox, toothache, poliomyelitis, wind colic, diarrhoea, blood dysentery, amoebiosis, constipation, fright, anxiety, fungus of mouth, cough and cold, night blindness etc.

Singh and Kumar (2000) performed on ethnobotanical survey among the tribals and aboriginal communities namely Tharu, Kol, Gond, Kharwar, Korwa of Uttar Pradesh and Santhal, Paharia, Oraon, Munda of Bihar. Some valuable and less known information's were gathered about the ethnomedicinal plants used as antipyretic agents. The indigenous preparations are widely taken in fever, malaria and kala-azar. Some of the less known and effective species recorded for this purpose are Andrographis paniculata, Bacopa monnieri, Boerhavia diffusa, Caesalpinia bonduc, Cissampelos pareira, Cyperus scariosus, Hemidesmus indicus, Limnophila
gratioloides, Luffa graveolens, Marsdenia tanacissima, Moringa oleifera, Nyctanthes arbor-tristis, Vitex negundo, Ziziphus nummularia etc.

Chaurasia et al. (2000) during an ethno-medico-botanical survey of Nubra valley found 36 medicinal plant species of high medicinal value. Results of investigation revealed specific uses of these medicinal plants for curing various diseases and health disorders like cough, cold, fever, skin complaints, abdominal pain, diarrhoea, intestinal worms, septic wounds, kidney complaints, headache, asthma, rheumatism etc.

Kala and Manjrekar (2000) documented rich and valuable medicinal plants occurring in Spiti sub-division of Himachal Pradesh and found 62 plant species being used by Amchis (local herbal practitioners) for curing various diseases and ailments. Some of the important plant species utilized against various diseases are Aconitum rotundifolium (used in blood purification), Allium carolinianum (used in indigestion), Ephedra gerardiana (used in respiratory disorders), Podophyllum hexandrum (used in blood diarrhoea), Iris ensata (used in ring worms and sores), Oxyria digyna (used in diarrhoea), Plantago erosac0 (used in constipation, dysentery), Rheum emodi (used in internal pain), etc.

Kothari and Londe (2000) carried out an ethnobotanical study on plants used by Korku, Gavali and local people in Chikhaldara area of Amravati district in Maharashtra. The study revealed that there are 44 plant species occurring in the area that are being utilized by these people to cure various diseases like diabetes, jaundice, asthma, blood pressure, obesity due to enlarged thyroid glands, stomach disorders, kidney trouble etc. Among these, some commonly occurring medicinal plant species are Acacia leucophloea, Ailanthus excelsa, Bacopa monnieri, Careya arborea, Cassia tora, Cordia dichotoma, Costus speciousus etc.

Khare and Khare (2000) carried a study in Chhatarpur district of Madhya Pradesh to find out the medicinal plants used by the rural people for curing rheumatism. As per the results of investigation, 21 plant species were found to be used by these rural
people for curing rheumatism. Among these some of the important species are *Cassia fistula*, *Madhuca indica*, *Leucas aspera*, *Pongamia pinnata*, *Plumbago zeylanica*, *Withania somnifera*, *Aloe barbadensis*, *Calotropis procera*, etc.

Samvatsar and Diwanji (2000) studied the utilization pattern of 91 plant species by the tribals of Western Madhya Pradesh for the treatment of rheumatism. Out of these 91 plant species, some of the important species include *Abrus precatorius*, *Acacia catechu*, *Alangium salviifolium*, *Boswellia serrata*, *Asparagus racemosus*, *Calotropis procera*, *Cassia fistula*, *Celastrus paniculatus*, *Crinum latifolium*, *Datura metel*, *Euphorbia nerifolia*, *Madhuca longifolia*, *Jatropha curcus*, *Hemidesmus indicus*, *Gloriosa superba*, *Pergularia daemia*, *Terminalia bellirica*, *Tinosperma cordifolia* etc.

Goud et al. (2000) made an ethno-medico-botanical survey among Chenchus, Sugalis and Yerukala tribe in Kurnool district of Andhra Pradesh and enumerated 29 plants with knowledge of the tribals for their medicinal uses in curing fever and malaria. Among these, some of the commonly used medicinal plants are *Alangium salviifolium*, *Andrographis paniculata*, *Aristolochia indica*, *Azadirachta indica*, *Calotropis procera*, *Hemidesmus indicus*, *Madhuca indica*, *Tinosperma cordifolia*, *Wrightia arborea*, etc.

Kumar et al. (2000) carried out a study on ethnomedicinal uses of some plants among Chenchus, Sugalis and Yerukula tribal communities of district Mahabubnagar in Andhra Pradesh. Results from the investigation revealed 31 plant species used by these tribal communities for curing different diseases like abortification, snakebite, fever, diabetes, dysentery, stomach ache, epilepsy, scurvy, head ache, rheumatism, liver disorders, pulmonary diseases and skin diseases etc.

Girach et al. (2000) studied the traditional treatment of skin diseases in Bhadrak district of Orissa. The results from the investigation revealed 38 plant species used by the inhabitants of the area in curing skin diseases such as cuts, wounds, boils, eczema, scabies, ringworm infection, irritation, itching, burns, skin eruptions, etc.
Sharma (2000) during an ethnomedicinal survey among the Nepalese of Assam reported 36 native plant remedies for the treatment of different diseases prevalent in the area. It is clear from the investigation that variety of medicinal plant species are used by these people for curing various disease such as fever, nasal bleeding, diarrhoea, dysentery, ringworms, skin disease, cuts and wounds, throat infection, stomach disorders, gastric trouble, toothache, malaria, Jaundice, etc.

Bhardwaj and Gakhar (2003) investigated ethnomedicinal plants used by the tribals of Mizoram. A total of 25 species of medicinal plants being used by the tribal people to cure dysentery have been enumerated in an alphabetical order by their botanical names followed by family and local names, part used and mode of preparation.

Patil et al. (2004) studied the ethnobotanical plants of North Maharashtra. The study reveals 35 species of angiosperms useful for dental and oral healthcare. These are usually used for tooth-ache, gum complaints like swelling, pains, bleeding, dental caries and throat infection. They are generally used in the form of juice, extract, powder, paste, ash, latex, decoction etc.

Bhattanai (1990) has reported medico-ethnobotanical information on 51 empirically accepted prescriptions involving 36 plant species belonging to 36 genera and 27 families, collected from the rural inhabitants of Kabhrepalanchock district of central Nepal. The ethnomedicinal survey revealed that these prescriptions are much employed for common ailments as the remedies are accepted by the majority of the masses over generation.

George (1995) carried out an ethnomedicinal investigation in Tongan Island and Studied Pharmacopoeia of 108 medicinal species from 52 families. He revealed that 50% of the Pharmacopoeia is composed of species indigenous to Tonga 30 percent are species introduced by Polynesian settlers and 20 percent are species of Post-European introduction.

Pal et al. (2000) carried out a study on medicinal plants and plant products used in children diseases among aboriginals in India. Reports of investigation indicates
various methods of drug preparation by tribals in the form of solution, paste, powder, decoction, tinctures, massage oil, ointments, balms, tablets etc.

Shrivastava et al. (2000) carried out an ethnomedicinal survey of tribal villages of Bastar district in order to identify medicinally important plants used by tribals in the region. The results obtained from the investigation revealed that 20 preparations of herbal medicines prepared from 24 plants in the form of decoction, powder, poultice paste and ashes are used by the tribals of Bastar district for antifertility and abortification.

Balu et al. (2000) carried out a study on botanical remedies for diabetes from the Cauvery delta of Tamilnadu and reported 30 folklore botanical remedies for curing diabetes. The methods of drug preparation and doses of administration of plant medicines as suggested by the herbalists have also been recorded. The plant species used for this purpose are Abrus precatorius, Aegle marmelos, Andrographis paniculata, Carica papaya, Cassia fistula, Coccinia indica, Ocimum sanctum, Tinosperma cordifolia, Gymnema sylvestre etc.

Rajasekhar et al. (2003) carried out an ethnobotanical exploration of important medicinal plants in Nallamalai forests of Andhra Pradesh during 1998-1999. Information on 75 plant crude drug preparations and their use by tribal and non-tribal people for the treatment of different diseases were reported.

Chandrasekar and Shrivastava (2003) carried out on ethno medicinal studies in pin valley national park in Himachal Pradesh. They recorded ethnomedicinal uses of 35 plants along with the method of crude drug preparation, dosages and duration for certain priority diseases like kidney problems, asthma, skin infectious etc.

Reddy et al. (2005) carried out an ethnobotanical investigation of certain orchards of Eastern Ghats of Andhra Pradesh during 1995-2001. Information on 21 species of orchards having medicinal importance and the method of crude herbal drug preparation has been recorded.