

Traditional Medicine Practice amongst the Takkad People of Nigeria.

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Abstract

An ethnomedical survey was conducted from April to October 2006 for the first time of the uniquely ethno geographical tourist-relief region of the Takkad speaking community of Southern Kaduna-Nigeria. The study, which aimed at documenting and establishing resourceful information for both phytochemical and pharmacological studies of the surveyed plants against their ethnotherapeutic claims, yielded a total of 50 medicinal plants species represented by 47 genera from 30 botanical families. Plants habit/habitat of collection showed most of the plants as ubiquitously wild (74%) and herbaceous in nature (46%). Information on indigenous medicinal plant wealth was obtain using a tape recorder, supplemented by a structured and semi-structured questionnaire during the interview interactive session of the study with key people who are knowledgeable in Takkad Traditional Medicine. The idea of plant conservation was observe to be lacking, hence there is a serious threat of decimation and depletion of plants flora. Regional studies base on epidemiology revealed a record of 34 ailments, which were mention 69 times by the respondents as various therapeutic indications for the 50 plants surveyed. Most of the recipes involved a single plant with water and some local liquor as the common extractive solvent, while the mode of administration, dosage-regimens are grossly unregulated and unstructured. Generally, the families of Astaraceae, Leguminosae, Euphorbiaceae, Acanthaceae and Rubiaceae played a dominant role as plant medication. It was generally, concluded that information of this kind would be of benefit in general health care, ecological control, regional vegetation conservation and research into natural products—leading to drug discovery.

Keywords: takkad, epidemiology, therapeutic indication, recipes, ethnomedical survey.

1. Introduction

Traditional Medicine is an aspect of ethnobotany and ethnomedical studies. It is a practice by which, ailments are cured or treated by the use of raw materials from plants. Ethnobotany is a very broad discipline and it includes all sorts of human-plant interactions. It is a study of how people of a particular culture and region make use of indigenous plants. Ethnomedical study then conceptualized ethnobotany based on the medicinal use of plants and epidemiology. Epidemiology however, is the study of how often diseases occur in different group of people and why. All these concepts are then summarize as the use of plants in primitive societies (Manzoor et al., 2006).

The scientific study of plants and their therapeutic significance is mostly carry out as a survey research into the use of such plants in unlettered societies. However, the strategy of study with emphasis on epidemiology has proved very resourceful and invaluable in the selection of phytomedicine, which has most often than not served as a lead to drug discovery. Farnsworth (1966) had earlier noted five approaches in the selection of plant for pharmacological screening of which the ethnobotanical survey approach is inclusive. Consequently, Khafaghi and Deweder (2000) reported that sampling base on the ethnobotany survey approach had showed comparatively, a greater percentage yield of bioactive useful medicinal compound over the other methods. These are all then, evidences of rekindled interest in medicinal plants as potential sources of novel drug. However, most importantly therefore, is to note that these medicines in plant resources can only be scientifically best harnessed into useful products by exploring the dynamics of local indigenous medicinal plant knowledge.

The Takkad people of Nigeria are situate in two states of the federation: Plateau and Kaduna states. This is largely a hilly (mountainous) area, which extended from Kagoro in Kaura local government area towards Godogodo in Jema'a local government area of Kaduna State to Ganawuri and Bachit districts in Plateau state. The people then occupy the Foothills of the Attakar-Kagoro hills, which are an extension of the younger granites of the Jos Plateau (Naraguta SW Sheet 164). The Takkad community consequently lies between latitude 9°33'N - 9°41'N and longitude 8° 28'E - 8° 35'E, North Central Savannah region of Nigeria. A small ethnographic Chiefdom area made up of three district villages covering its entire land mass (of about 100 Km²) which include

Fadan Attakar, Mifi and Tafan village communities (see map of Figure1).

The Takkad community is largely rural, pursues an agrarian economy, and is a self-identifying community group and provincialism with a distinct linguistic tribe (dialect) called Attakar (Takkad), classify into the so called 'minority tribes' of the north as compared to the Hausa major speaking tribe of Northern Nigeria. The rural people of Takkad used to rely entirely on plant resources for their domestic and health care needs. This is largely because Traditional Medicines are often cheaper and easier to access for the people than western medicine. They collect useful plants and their parts from various habitats such as forest, scrubs, grassland, cultivated fields, wetlands and riverbanks and use those following traditional practices. However, today like most other rural communities, modernity and the infiltration of other 'so-called civilized values' is fast changing these practices.

Investigation of ethnobotanical survey studies of the central region of Nigeria have earlier been conducted for some tribes of similar classification with the Takkad tribe, which include plants use in the Traditional Medicine practice of the tribes of Igede, Tiv, and Itulo ethnicities of Benue state (Igoli et al., 2003; Tor-Anyiin et al., 2005). This study is therefore a continuation of attempts to document the medicinal plants use of all tribes within the country, especially of those with renowned history. The study of the indigenous plants of Takkad is so carried out to disseminate the dynamics of local knowledge and challenge modern healthcare development as well as to establish a database of the plants of Takkad with special reference to their ethnomedical uses—using the ethnobotanical survey research approach.

2. Sampling Technique/ Procedure

The survey expedition of Takkad region includes the collection of information, procurement of medicinal plants and their subsequent identification, classification and analysis. To ensure an effective coverage of the study area, at least two village communities (totaling six villages) in each of the three districts of the study area was targeted, to which a selected sample frame of (at least) 30 interviews were administered in each village. The sample population is principally a constitution of Traditional Medicine Practitioners or herbalist (known also as Traditional Healers), old individual with claims of medicinal plant knowledge, apprentices, household women and mothers. The sampling techniques so employed made use of the fact that information on ethnomedicinal plants used by unlettered society is mostly richly endowed by these groups of persons afore mentioned; this therefore makes the entire population a target.

The method of data selection/collection employed by Betti (2004) was adopted to serve as a guide; in which method, enquiry was made as to what ailments was treated by which plant species (i.e. ailment-plant). This means one has to list the ailments commonly occurring in the community (such as diarrhea, stomach ache, dysentery, skin diseases, etc), then enquire the treatment, rather than asking which plant was used to treat which ailment (i.e. plant-ailment). Data were then obtained from direct interviews with the local people by taking into consideration methods of preparation, application mode, dosage-regimen, duration of treatment, duration of practice, sources of knowledge, extent of patronage and level of success in curing the ailment with the used prescription/ recipes. Information on culture and ecological/environmental factors were also enquired.

2.1 Ethnobotanical Information Acquisition

The data for this study, conducted from April to October 2006 in the Takkad community area (see map of fig. 1), involved mainly, 15 knowledgeable elders (10 men and 5 women). These were between the ages of 40 and 80 who were all from the four villages that comprise the study area (five each from Fadan Attakar, and Tachira, three from Chicham, and only one from Mifi). These elders knowledgeable on medicinal plants were chosen from the different sites with the assistance of the traditional administrative chief (known as Agwam), district heads and community elders. These key elders, also served to authenticate and affirm information obtained from other villagers interviewed. During the expedition, each informant was visited three to four times in order to verify the reliability of the data obtained. If a discrepancy was noted between information given during an earlier (first) visit and those of successive visits on a particular plant, it was considered unreliable and rejected. The repetition of visits was also to serve as an aid in gathering additional information not mentioned during a previous interview session. Data acquisition was collected successfully using the communicable dialects within the area—in line with standard enquiry procedure and with the aid of the research instruments.

2.2 Instruments employed

Consequently, a tape recorder was employed during the interview session to record data of information by the informants. A questionnaire-guided tool structured to furnish data on the itemized considerations earlier

mentioned above was also use, serving as a supplementary tool. The structured questionnaire was an integration of those designed by Sofowora (1993); information collection data form by the ministry of health (Government Chemist Laboratory) in Dar-es-Salaam-Tanzania; ACCT based in Paris and AU/STRC based in Lagos by Professor Adjanohoun (Adjanohoun et al., 1991).

2.3 Plant Habitat of Collection/Herbarium Specimen Preparation

For each selected plant species collected, a record was made of its habitat in the area—which were classify under wild, village, field under cultivation and forest. The plant species were collected by the person who normally prepares the herbal remedy/informant, to avoid the collection of the wrong specimens through variation in local names (Sofowora, 1993). The collected plant species were then prepared according to standard procedures of herbarium specimen preparations and preservation. Photographs images of collected plant species were also made to facilitate their identification process. Final identification (both colloquially and scientifically), was made at the herbarium unit by the herbarium staff of Biological Science Department of the Ahmadu Bello University, Zaria-Nigeria. The specimens were label with voucher specimen number and deposited at the Department of Pharmacognosy and Drug Development, ABU-Zaria for referencing. Descriptive statistical tool of tabulation tables and frequency distribution tables for group and ungroup data and bar chart, was then utilize to analyzed findings.

3. Results

120 interactive interviews sessions were targeted for four villages of Takkad but only 78 sessions of these interviews were possible, indicating (as given in Table 1 for all the surveyed villages) an overall response rate of 65 %. Consequently, 50 medicinal plants species represented by 47 general were document from 30 botanical families. The families of Astaraceae, Leguminosae, Euphorbiaceae, Acanthaceae and Rubiaceae played a dominant role in terms of the number of medicinal plants species recorded. These are as shown in Table 2. The plants species collected were mention (cited) 69 times for 34 ailments and other health related problems as therapeutic indications for the 50 plants. These were classify into 11 groups of ailment/disease as shown in Table 3 and described in the graph of Figure 2, to further show the relative importance of plant species in terms of their citation by informants. Table 4, however, present a general overview of ethnomedicinal plants findings which indicates prescriptions given as well as mode of administration against cited therapeutic indications for the plants surveyed accordingly.

5. Conclusion

5.1 Medicinal plants and associated knowledge

The study presented describes the identification and documentation of ethnomedicinal plants of Takkad region for the first time. Results of the study showed the ethnomedicinal survey approach as resourceful and a good strategy for the dissemination of the dynamics of local indigenous traditional medical health care. The continuous patronage by the majority of the rural populace, especially of those with little or no formal education is an indication of a wider acceptability and a long history of Traditional Medicine (TM) among the Takkad people.

Communities of Mifi and Tapan yielding a low response rate during the survey, is an indication of deep-rooted practices of Traditional Medicine practice most probably associated with ritual conducts. Their attitude of keeping secret some Traditional Medicine practice can be liken to the people's believes and techniques in Traditional Medicine that spring from spiritual causes, astral influence or esoteric factors. Consequently, a lot of traditional knowledge is been retain on different plant resources that are of medicinal value. The world health organization (WHO) in recognition to this had earlier attested that TM owes its popularity among rural communities of the world since it is readily accessible, affordable and more importantly, it is an integral part of their traditional and cultural beliefs and practices (WHO, 2002-2005). Modern and traditional sources of medicine by rural communities have earlier been documented elsewhere in Africa by Iwu (Iwu, 1993).

5.2 Vegetation distribution of medicinal plants

The documented medicinal plants as enumerated in table 2 showed that these are typical plants of the Guinea Savannah as well as the Savannah areas of the country; some of which have been recorded for the ethnic communities of Tiv and Igede areas of Benue State—North Central Nigeria (Igoli et al.,2003; Tor-Anyiin et al., 2005). Nevertheless, the differences in vernacular names, the habitat of collection, and more importantly, the

differences in the cited therapeutic indications as practiced in each of these regions of same vegetative belt is of high importance and of pharmaceutical interest in drug discovery and development. Heinrich et al. (1998) had earlier suggested that it might be possible to calculate the number of separate medicinal uses of a particular plant species and the number of times they have been mentioned by collaborators, thus generating a guide to the relative importance of particular species. The source communities of these medicinal plants could be of commercial importance—considering an interesting outcome of pharmacological activity from any of the surveyed plants when assayed. In lending credibility to the later, Cordell (1995) had earlier opined that for most pharmaceutical companies, until a lead is identified and more sample required, the source is irrelevant. However, due to an effective result oriented research often achievable through the use of data of findings from an ethnomedical survey research, Cordell (1995) further noted that some companies base their collection programme on either ecological or an ethnomedical approach.

5.3 Recipes, dosage-regimen and route of administration

The result of table 4 describes and records prescription (mode of administration) of the surveyed medicinal plant, is a typical form of traditional medicine practice of the Takkad people. It generally showed that most recipes involve a single plant with water (and sometimes with local liquor drink) as the common extractive solvents either by maceration, decoction, boiling or a cold concoction mixture. Mode of administration, dosage-regimen is grossly unregulated and unstructured. However, since most of the respondents testified on their successes after using such form of medication proved to their somewhat safety and efficacy. WHO had earlier supported the use of traditional medicine provided it is proven efficacious and safe (WHO, 1978). The National Agency for Food and Drug Administration and Control (NAFDAC) has also stated listing ethnomedicinal preparation on the market. The assumption that since African population has not drastically decreased over the century is an indication that these preparations must have some truth about them. This study has procured, identified and classified surveyed medicinal plants of Takkad without attempting to investigate their phytochemical constituents. The importance of this aspect of the study has become necessary in order to detect as a lead, the chemical constituents in these plants that may be the active therapeutic ingredients. This aspect of the study is hereby presented in a subsequent paper.

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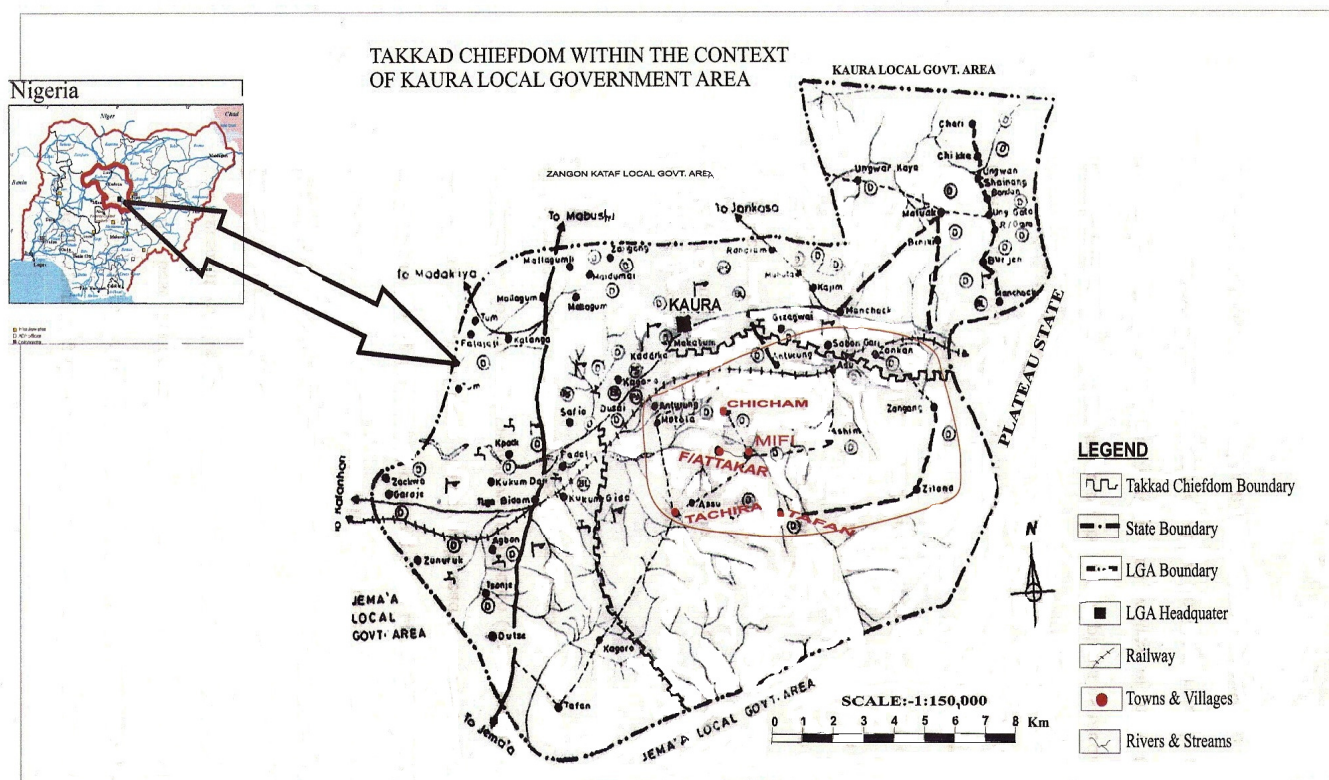


Figure 1. Location of the Takkad Chiefdom Area in Kaura L.G.A. of Kaduna State-Nigeria.
 *(Modified from map obtained from Department of Land Survey, Kaura L.G.A.)

Table 1. Ethnobotanical survey zones and their response rate

Takkad Village	Respondents			Response rate	
	^a Traditional Healer Age: 40-70 yrs	Old Individual 50-80 yrs.	Women 45-70 yrs.	Total	%
Chicham					
No. of interviews	20	6	2	28	93
^b No. of persons	7	3	1	22	
Fadan Attakar					
No. of interviews	15	4	7	26	76
No. of persons	10	1	3	14	
Mifi					
No. of interviews	2	1	-	3	10
No. of persons	1	-	-	1	
Tachira					
No. of interviews	-	18	3	21	70
No. of persons	-	12	1	13	
Total	37	29	12	78	65

^aAt least 30 interview sessions was targeted for each group

^bValues for number of persons inform number of plants collection: these are not use in evaluating response rate—hence not bolded

Table 2. Medicinal Plants Recorded among the Takkad and their Vernacular Names

Family/Specie	V.No.	Takkad Name	*Hausa Name
[Acanthaceae]			
<i>Hypoethes cancellata</i> Nees		Fiffat	
<i>Nelsonia canescens</i> (Lam.) Spreng.	900068	Mumuruk	Tsaamiyar Makiiyaayaa
<i>Peristropshe bicalyculata</i> Nees	2863	Grufu	Lemun dagi, Tubaanin dawaaki
[Anacardiaceae]			
<i>Heeria pulcherima</i> Sensus Eyles.	254	KanAtini	Shuwarka Jangargari
[Annonaceae]			
<i>Dennetia tripetala</i> G.Barker.	2737	Afak	
<i>Uvaria chamae</i> P. Beauv.	3129	Kochi ulu	Kauchi
[Apiaceae: Umbeliferae]			
<i>Hydrocotyle bonariensis</i> Comm. ex Lam.	4311	Shuabwad	
[Apocynaceae]			
<i>Carissa edulis</i> (Forssk.) Vahl	601	Babayak	Bagozaki, Cizaki Uwar banza
[Asparagaceae]			
<i>Asparagus africanus</i> (Lam.) Oberm.	900179	Alyemchu	Tarko beeraa
[Astaraceae]			
<i>Acanthospermum hispidum</i> DC.	900051	Yawo	Kaashin-yaawoo
<i>Blumea aurita</i> (L.F.) DC.	1160	Bpandra	
<i>Chromoleana odorata</i> (L.) King & Robinson	1128	KanGbab	
<i>Spilanthes filicaulis</i> (Schumach.&Thonn.)CD.Adams	534	Sangkali	
<i>Vernonia kotchiana</i> Sch. Bip. ex. Walp.	1269	Lateen	Cika fage, Kumbura fage
[Bignoniaceae]			
<i>Stereospermum kunthianum</i> Cham.	1381	Aghud	Sansami, Jiri, Turken dookii
[Bombacaceae]			
<i>Ceiba pentandra</i> (L.) Gaertn.	7059	Ukum	Riimii
[Boraginaceae]			
<i>Coldenia procumbens</i> Linn.	882	Atung	
[Caesalpinoideae]			
<i>Paltaphorum africana</i> Lam.	2891	Ugyang	
<i>Piliostigma thonningii</i> (Schum.) Milne Redh	171	Sumswam	Kargo cancelli
<i>Senna nigricans</i> Vahl		Ulan abin	Halallamai (Kats)
<i>Senna obtusifolia</i> (L.)Irwin & Barneby	1370	ShuiLamang	Tabbasa
<i>Senna mimosoides</i> L.	551	Chyad Gbolum	Baushen Giiwaa
[Caryophyllacea]			
<i>Stellaria media</i> (L.) Vill.	1613	Kh'aamkan	Tsuwawun kare, Gwuwar kare
[Combretaceae]			
<i>Terminalia mollis</i> Rolfe	901452	Shuab	Jan Ice, Jan Yaaro
[Euphorbiaceae]			
<i>Securinega virosa</i> Pax. et Hoffom.	918	Kanshudvam	
<i>Hymenocardia acida</i> Tul.	7108	Bakhyak	
<i>Jatropha curcas</i> L.	1911	Kakroo	Bini da Zugu

<i>Croton lobatus</i> L.	1803	Kuku	Namijin-Zaki, N/Gaskiya
[Loranthaceae]			
<i>Tapinanthus dodoneifolius</i> (DC)	1270	Kochi Ulan	Kauchin dooruwa
[Leguminosae]			
<i>Erythrina senegalensis</i> (D.C.) A. Chev	7095	Kan shora	Idon Zakara, Jinjiriya, Majirya
[Malvaceae]			
<i>Sida acuta</i> Burro.f.	653	Suup	
[Menispermaceae]			
<i>Cissampelos mycrunata</i> A. Rich.	1643	Atra	Bakinkundo
[Mimosoideae]			
<i>Parkia biglobosa</i> (Jacq.)Benth.	7	Ulan	Dooruwa
<i>Dichrostachys cinerea</i> DC.	3	Gamalua	Sarkakiya Dundu
[Moraceae]			
<i>Ficus abutilifolia</i> (Miq.) Miq.	900742	Abuiyag	Yandii, Wa, Wa Kunkumi
[Musaceae]			
<i>Musa sapientum</i> L.	m/01	Yaba	Ayaba
[Orchidaceae]			
<i>Calyptrochilum emarginatum</i> (Afze Lex.Sw.Scltr)	02	Aban ulan	Tsirafafo, Firtsa Fako, fako
[Papilionaceae]			
<i>Stylosanthes erecta</i> P. Beauv	307	Kan Tanyang	
<i>Indigofera pulchra</i> Willd.	410	Kan Tanyang	
<i>Cajanus cajan</i> (pigeon pea) (L.) Millsp.	2409	Shuru	Waken Masar, Adu uwa
[Polygalaceae]			
<i>Securidaca longependunculata</i> Fresen.		Kageeh	Sanya, Uuwar magunguna
[Polygalaceae]			
<i>Borreria radiata</i> DC.	2810	Kankwe	Danfarkami
<i>Nauclea latifolia</i> Smith.	1268	Utiyat	Igiyaa
<i>Spermacoce verticillata</i> L.	410	AfakAgro	
[Scrophulariaceae]			
<i>Scoparia dulcis</i> L.	555	Ukan	Zaaki, Rima faada, H.Saniya
[Sterculiaceae]			
<i>Waltheria indica</i> L.	2718	KanAfan	Yakufa, Gobir, Han kufaa
[Taccaceae]			
<i>Tacca involucrata</i> Schumacher &Thonn.	900381	Kan Gbolum 2	Sanda biri, s.dutse, s.yan bori
[Verbenaceae]			
<i>Stachytarpheta angustifolia</i> (Mill.)Vahl	571	Shishio atyak	Wutsiyar kadangare
[Zingiberaceae]			
<i>Costus afer</i> Ker-Grawl.	363	Djuro	Kaaki-zuwa Hausa

^oVoucher Number

*Hausa name implying a major language spoken within Northern Nigeria

Table 3. Ailments recorded during the interview with the Takkad informants

<i>Group of ailment</i>	<i>Ailment</i>	<i>Number of Citations</i>
Cardio vascular system	Hypertension	3
Digestive system	<i>Diarrhoeal</i>	4
	<i>Dysentery</i>	3
	<i>Parasitic stomach worm</i>	4
	<i>Pile</i>	2
	<i>Stomach ache</i>	7
	<i>Toothache</i>	5
External skin infection/ Disease	<i>Ulcer</i>	2
	<i>Boil</i>	2
	<i>Burns, Wounds, Sores</i>	2
	<i>Ringworm/eczema</i>	3
Female genital/Reproductive System	<i>Leprosy</i>	1
	<i>Miscarriage/induce placenta (still birth)</i>	1
	<i>Menstrual problem (Dysmenorrhoeal)</i>	1
Male genitor-urinary system	<i>Induce maternal labour</i>	1
	<i>Gonorrhoeal/Syphilis</i>	2
Musculo-skeletal system	<i>Hydrocel</i>	3
	<i>Backache</i>	1
	<i>Convulsion</i>	2
Nervous (sensory) system/ Nerves	<i>Fatigue</i>	2
	<i>Paralysis</i>	1
	<i>Headache (migraine)</i>	1
	<i>Eye problem</i>	1
Parasitic disease	<i>Ear ach/infection</i>	2
	<i>Fever</i>	1
	<i>Malaria</i>	1
Respiratory system	<i>Typhoid</i>	4
	<i>Rip (pneumonia)</i>	2
	<i>Tuberculosis</i>	1
Specific conditions	<i>Snakebite</i>	1
	<i>Sliming</i>	1
Viral disease	<i>HIV-AIDS</i>	1
	<i>Influenza-cold (catarrh)</i>	1
	<i>Yellow fever</i>	1
Total number of citations		69

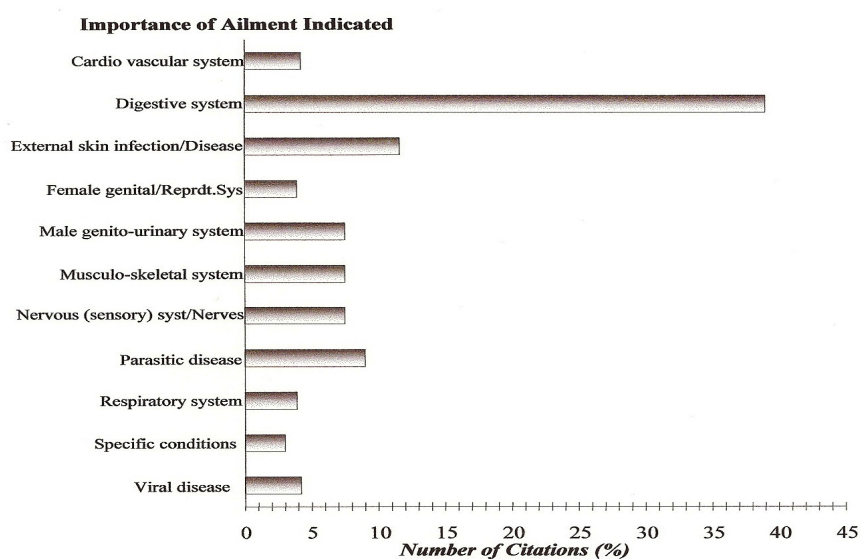


Figure 2. Relative importance of groups of diseases in terms of their number of Citations in the surveyed Takkad villages

Table 4. Traditional Medicine Practice of Takkad (recipes of selected screened plants)

Ailment Specification/Specie	Preparation: <i>mode of preparation, dosage-regimen</i>	Remarks
<u>Antifatigue</u> <i>Carissa edulis</i>	Aqueous macerated plant root is made and the resulting extract is used to prepare local drink or made into gruel. Preparation is taken cupful orally each time the need arises.	Energizes the individual and stimulates ability to work tirelessly
<u>Burns/Cancerous wounds</u> <i>Terminalia mollis</i>	Dried bark is pounded into powder. Powder is yellowish. Powder is applied on wounds or burns in considerable quantity.	Very effective; healing is expected in no time.
<u>Diarrhoeal</u> <i>Nelsonia canescens</i>	Fresh whole plant is extracted in cold water by maceration. Extract is taken 3 times a day in a small cupful.	Disappearance of symptom is interpreted a cure
<i>Cissampelos myrcunata</i>	Aqueous decoction of fresh leaves is made. Extract is taken warm orally.	Symptom is expected to disappear in due course.
<i>Borreria radiata</i>	A concoction is made by mixing the powder of plant with that of lime and earthworm-build. Mixed powdered drug is infused in cold water in a small calabash and taken orally at least twice a day.	Instant relief from stomach ache; symptoms disappear as treatment repeated
<u>Dysentery</u> <i>Heeria pulcherima</i>	Roots are extracted in boiled water, after which hot extract is used to make gruel of red guinea corn—the grains must be grounded using local stone grinder. Gruel preparation is taken orally for two days.	Disappearance of symptom is interpreted as cure
<i>Waltheria indica</i>	Decocted leaf extract is mixed with red potash. Taken warm orally until cure	Symptom disappears as treatment continues. Taken as cure
<u>Earache/Infection</u> <i>Hydrocotyle bonariensis</i>	Fresh leaves are pounded or crushed into a paste. Leaf paste is applied into infected ear and left overnight. Application continues the next morning and that will be all.	Instant relief is expected; taken as cure.
<u>Eye problem</u> <i>Dichrostachys cinerea</i>	Aqueous decoction of fresh leaves mixed with egg albumen—is steamed in a clay pot. Application is aromatherapeutically, by exposing the eyes to the vapour of drug for a considerable length of time. Preparation is used to wash the face for 14 days.	Disappearance of symptom is taken as cure.
<u>Parasitic stomach worms</u> <i>Senna nigricans</i>	<i>table 4 continue</i>	
	Infusion of leaf powder drug in water is made. Infused drug is taken a half cupful, continuously until cure	Relief symptoms as drug are taken continuously.
<u>Pile</u> <i>Blumea aurita</i>	Aqueous decocted fresh roots are mixed with dairy fat. Vapour of decocted drug is exposed aromatherapeutically to child's anus thrice a day for 2 weeks.	Symptom is expected to disappear at the end of treatment
<u>Skin Infection (Ring worm, Eczema)</u> <i>Indigofera pulchra</i>	Fresh leaves of plant are pounded, dried and pounded again to obtain a smooth powder. Powdered is mixed with pear oil and rubbed on affected skin areas—can also be mixed with gruel and drunk.	Disease is expected to disappear on continues treatment; taken as cure
	Concoction of fresh whole pounded plant with guinea corn powder is made into gruel. Or powdered whole plant drug is prepared and mixed with guinea corn gruel. Gruel drug is taken orally continuously until cure. Powdered drug of small quantity is to be mixed in gruel each time and taken orally.	Disappearance of symptoms is taken as cure.
<i>Spermacoce verticillata</i>	Fresh leaves are pounded, dried and pounded again into powder. Half quantity of powder is mixed with petroleum jelly (Vaseline) and rubbed on affected areas; other half is mixed with cow milk, gruel or warm water and taken orally.	Symptom is expected to disappear as treatment progresses
<u>Snake bite</u> <i>Cissampelos myrcunata</i>	Cold maceration of fresh leaves is made. Half cup is taken orally once daily. Also, fresh leaves are mashed into paste and used by placing plant paste in incision made and bandaged.	Disappearance of symptom is interpreted as cure.
<u>Stomach ache</u> <i>Paltaphorum africana</i>	Fresh or dried stems, leaves or small twigs with leaves are decocted in water. Small spoonful (5times) daily is administered to infant orally.	Symptoms disappear in the course of treatment.
<i>Cissampelos myrcunata</i>	Aqueous decoction of fresh leaves is made. Aqueous extract is taken orally warm.	Instant relief from stomach ache; symptoms disappear as treatment is repeated

<i>Hymenocardia acida</i>	Aqueous decoction of leaves is made. Extract is fed to child orally little by little until recovery.	Symptoms are expected to disappear in the course of treatment.
<i>Croton lobatus</i>	Aqueous decoction of fresh leaves is made. Potash can be added of little quantity. Extracted drug of little quantity is given to child once a day.	Symptom is expected to disappear as treatment progresses.
<i>Borreria radiata</i>	A concoction is made by mixing the powder of plant with that of lime and earthworm-build. Mixed powdered drug is infused in cold water in a small calabash and taken at least twice a day.	Instant relief from stomach ache; symptoms disappear as treatment is repeated.
<u>Toothache</u>		
<i>Spilanthes flicaulis</i>	A paste is made from fresh leaves of plant mixed with the leaves of <i>Tapinanthus dodoneifolius</i> . Small quantity of paste is place in the mouth on the affected tooth, for about 5minutes.	Pain ceased. Symptoms disappear at the end of treatment
<i>Tapinanthus dodoneifolius</i>	Aqueous macerated fresh plant leaves with small twigs is made. Extracted drug is taken a small cupful orally for 3 days.	During treatment, BP is checked and would be observed to be lowered.
<i>Cissampelos mycrunata</i>	Fresh leaves are mashed into paste and used. Plant paste is placed on tooth and held for sometimes. Aqueous extract of the leaves can also be taken warm.	Symptom is expected to disappear as treatment progresses.
<u>Typhoid</u>		
<i>Securidaca longipendiculata</i>	Fresh leaves are pounded, allowed to dry before pounding again to obtain a smooth powder. A concoction is then made by pouring and mixing powdered drug in the following mixtures: 1 bottle of coke beverage drink, 1 bottle of stout alcohol, and 1 bottle of malt beverage drink. These are allowed to stand for 8hours, after which concocted extract is stirred and taken gradually for 1 month.	Symptom/disease is expected to disappear at end of treatment; taken as cure
<i>Vernonia kotchyana</i>	Dried powdered leaves of plant are macerated in cold water. Extract is taken little by little, 1 cup each day.	Disappearance of symptom is interpreted as cure.
<u>Ulcer</u>		
<i>Senna nigricans</i>	Infusion of leaf powder in water is made. Infused drug is taken half cupful, continuously until cure.	Relief of symptoms is observed as drug is taken continuously.

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