# INDIGENOUS KNOWLEDGE ON MEDICINAL THERAPY: A STUDY ON HOMEOPATHY TREATMENT IN SIRAJGANJ SADAR, BANGLADESH

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#### **Abstract**

The present research paper carried out on Indigenous knowledge of medicinal therapy prescribed by native doctors to their patient in Sirajganj Sadar, Bangladesh. The study focused on indigenous treatment policy, the methods they used, the medicine they applied and the problems they faced. The data were collected from 100 patients and 10 doctors using a questionnaire method on homeopathy treatment. Purposive sampling technique was used to select respondents easily. The result showed that respondent patients were not conscious regarding indigenous homeopathy treatment (45%) although majority of respondents were satisfied about what they get through this treatment system. Patients under survey also do not believe that this treatment system is not an ineffective (70%) and unscientific (57%) system to cure disease though it takes too much time to cure completely (62%). Indigenous homeopathy treatment can take a huge place to people if the government and concerned authority take more steps to protect indigenous technique.

### **Keywords**

Indigenous knowledge, Homeopathy, Sirajganj, Bangladesh

#### Introduction

The indigenous knowledge is the knowledge that is unique to a given culture or society or nation which can provide the infrastructure for agriculture, health care,

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food preparation, training, environmental conservation and another process on the local level (Heyd, 1995). Any local community may use age-old knowledge and traditional practices on medicinal therapy as a mechanism for survival. Indigenous knowledge has a vast area of homeopathy treatment through medicinal therapy. Every culture, society, and nation has its own indigenous knowledge and techniques for making medicine. Indigenous knowledge on medicinal therapy means the folk knowledge of people that is used to make medicine using ingredients available at locality and technique of their own for the treatment of diseases. Indigenous medicine is those medicine which is made by using the locally available ingredients. It is the sum of total knowledge, skills, beliefs, theories, and experiences of an area. The homeopathy doctors extensively use indigenous medicine made by indigenous companies and it is popular among people since the socio-economic condition of Bangladesh is not very much developed. Indigenous knowledge has been used in homeopathy treatment as a medicinal therapy for a long time and its popularity is increasing.

#### **Review of Related Literature**

There are many studies, reports, and documents on indigenous knowledge in the various sectors of treatment of diseases. The literature can give an idea and background knowledge on this research topic.

Olatuken (2008) indicates in his study that indigenous knowledge has been used by traditional medical practitioners in the treatment of sickle cell anemia. This literature reveals the level of use of the local indigenous system and its level of acceptance for treatment of diseases. However, in order to enhance effectiveness, traditional medical practitioners need to provided proper training facilities. The practitioners use information of patients about their diet/eating habit and other information needed to give treatment. They rely on informal information due to their low level of education.

Research on indigenous medical knowledge and traditional medicines came into focus when the World Health Assembly (WHA) drew their attention to the use of traditional medicine to utilize traditional medical practices by urging member states in primary health care (Wolputte & Devisch, 2002).

A survey conducted by Muthu, C. et al. (2006) collected information from traditional healers on the use of medicinal plants in Kancheepuram district of Tamil Nadu. The investigation reveals that the healers used various species of plants. The plants were

proved to be curative to skin diseases, poison bites, and nervous disorders. Many people still depend on medicinal plants for treatment of diseases.

Molina (2015) mentioned in his study that it is necessary to acquire and preserve the traditional system of medicine by proper documentation and identification of the specimen. This traditional knowledge on the indigenous uses of the medicinal plants could boost new innovations in the pharmaceutical industry and have many beneficial applications such as new medicinal trials for some diseases like malaria, tuberculosis, and AIDS.

Alade et al. (2015) identified that grandparents were the highest (46%) of the custodian of indigenous knowledge. Parents were the next (39.7%). Only 39% of the respondents would prefer the use of herbal medicine to modern medicine.

Rahmatullah et al. (2012) highlighted that the 'Garos', an indigenous community of Bangladesh, follow traditional medicinal practices. Their traditional medicinal formula contains a number of plants; they take these as an antidote for various diseases. It was found that the tribal practitioners of the Marakh sect of the 'Garos' use twelve medicinal plants for treatment of diabetes.

These plants were Lanneacoromandelica, Alstoniascholaris, Catharanthusroseus, Enhydrafluctuans, Terminaliachebula, Cocciniagrandis, Momordicacharantia, Cuscutareflexa, Phyllanthus Emblica, Syzygiumaqueum, Drynariaquercifolia, and Clerodendrumviscosum.

## **Objectives of the Study**

The main aim of this study is to explore indigenous knowledge used by homeopathy healers for treatment of diseases in Sirajganj Sadar, Bangladesh. The specific objectives are:

- To identify the traditional techniques used/prescribed in therapy;
- To find out problems in getting indigenous homeopathy treatment;
- To measure the effectiveness of indigenous homeopathy treatment.

# The Methodology of the Study

In this research, quantitative method has been used. A number of databases have been searched for relevant articles to get a comprehensive understanding on traditional medicine. Questionnaire method has been used to collect data from the respondents. For sampling, purposive sampling method was used to select

respondents easily. Data collection was done via supplying questionnaire to the respondents. Some queries of the questionnaire were too technical to be understood by the respondents. Therefore, the researcher helped those respondents in filling up the questionnaire. The length of the questionnaire was not too big and there were a good number of options that helped the respondents to fill-up the questionnaire easily. Tables were used in the questionnaire. Data analysis has been conducted using MS-Word and MS-Excel Office packages. The data have been gathered and analyzed using descriptive statistics including frequency analysis, percentage analysis with mean and standard deviation to determine the demographics of the group sampled.

## **Data Analysis**

The collected data were analyzed, classified and tabulated. The questionnaire based on a set of questions was determined on the basis of objectives of the study. In this section, analysis has been prepared in view of predetermined objectives of the study, which has been shown in tables.

### **Data Analysis based on Patients' Responses Personal Information**

**Table-1: Respondents by gender** 

Gender	No. of respondents	Percentages
Male	50	50%
Female	50	50%
Total	100	100%

100 people from Sirajganj Sadar were taken under this study out of which 50% were male and 50% were female.

Table-2: Respondents by age group

Age Group	No. of Respondents	Percentages
Under 20	22	22%
20-24	11	11%
25-29	11	11%
30-39	25	25%
40-55	21	21%
Over 55	10	10%
Total	100	100%

Age distributions of respondents have been classified into six pre-defined categories shown in Table-2 where 25% belongs to the age category of 30-39, 22% belongs to under 20, and 21% belongs to the age range from 40 to 55.

#### **Indigenous Techniques used in getting Homeopathy Treatment**

**Table-3: Methods of getting homeopathy treatment from doctors** 

<b>Methods of getting treatment</b>	No. of Respondents	Percentages
Indigenous homeopathy	22	22%
treatment		
Foreign homeopathy treatment	2	2%
Mixed treatment	31	31%
Don't know exactly	45	45%
Total	100	100%

Near about half of the respondents (45%) did not know about the method of getting homeopathy treatment from doctors. 31% of the respondents got mixed treatment from doctors. Among the respondents, only 22% got indigenous homeopathy treatment.

Table-4: Indigenous homeopathy treatment received by patients

Indigenous homeopathy treatment received by patients	5 4 3 2 1 Mean Rank
a) The frequency of getting indigenous homeopathy treatment from the doctor	15 15 4 26 40 2.39 7
b) Are you conscious about indigenous homeopathy treatment?	11 45 7 24 13 3.17 5
c) Are you satisfied with indigenous homeopathy treatment?	21 2 12 1 3.92 2 0.90

Indigenous homeopathy treatment received by patients	w	4	m	7	1	Mean	Rank	SD
d) Do you know about indigenous medicine?	7	25	10	38	20	2.63	9	1.25
e) Do you think that indigenous homeopathy treatment is successful and effective?	8	69	12	111	0	3.74	3	0.76
f) Do you think that indigenous homeopathy treatment is less expensive than foreign homeopathy treatment?	64	27	4	5	0	4.50	1	0.80
g) Do you think that diseases are fully curative using indigenous homeopathy treatment?	19	53	10	18	0	3.73	4	0.97

N.B. (The values of each cell indicate percentage)

- a) 5=Always, 4=Frequently, 3=Undecided, 2=Sometimes, 1= Rarely
- b) 5=Very much conscious, 4= Conscious, 3=Undecided, 2=Not so much conscious, 1= Unconscious
- c) 5=Very much satisfied, 4= Satisfied, 3=Undecided, 2=Not so much satisfied, 1= Unsatisfied
- d) 5=Very much familiar, 4=Familiar, 3=Undecided, 2=Not so much familiar, 1=Unfamiliar
- e) 5=Very much effective, 4=Effective, 3=Undecided, 2=Not so much effective, 1= Ineffective
- f) 5=Always, 4=Frequently, 3=Undecided, 2=Sometimes, 1= Never
- g) 5=Always, 4=Frequently, 3=Undecided, 2=Sometimes, 1= Never

The respondents under this study were asked about indigenous homeopathy treatment received by the patients using 5-point Likert scale, mean and SD in Table 4. Standard Deviation indicates how far the individual data to an option vary or deviate from the average. According to Roberts (n.d.) a low standard deviation

indicates that the data point tends to be very close to the mean while a high standard deviation indicates that the data points are spread out over a large range of values.

Majority of the respondents (40%) under the study were rarely getting indigenous homeopathy treatment. About 45% of the total respondents under the study were conscious about indigenous homeopathy treatment. In reply to the question regarding their satisfaction, more than half of the respondents (64%) were satisfied with indigenous homeopathy treatment. 38% of the total respondents were not so much familiar with indigenous medicine. More than half of the respondents (69%) think that indigenous homeopathy treatment was successful and effective. The respondents (64%) agreed that indigenous homeopathy treatment was always less expensive than foreign homeopathy treatment. About 53% responded think that diseases were frequently curative using indigenous treatment.

The highest mean value of 100 respondents of this group was 4.50 which means indigenous homeopathy treatment was frequently less expensive than foreign homeopathy treatment and the lowest mean of this group was 2.39 which means, the respondents sometimes get indigenous treatment from doctors. The higher SD 1.50 for the method of getting homeopathy treatment from doctors indicates that the data were dispersed from their mean and the lowest SD 0.76 for the comments of respondents on success rate and effectiveness of indigenous homeopathy treatment means that the data were very concentrated around its mean.

The respondent patients were asked about the use of indigenous medicine for the various types of diseases/disorders shown in Table 5. In reply, 31% respondents informed that, they use indigenous homeopathy treatment frequently for cold, and 27% of the total respondents frequently use for fever. No respondent (100%) never use indigenous homeopathy treatment for snakebite and poison. The highest mean value for "cold" was 2.72 with a highest SD value of 1.64 and lowest mean for "snakebite" and "poison" was 1.00 with a SD value of 0.00.

Table-5: Taking of indigenous medicines for some common diseases/disorders

Types of some common diseases/disorders	5	4	3	2	1	Mean	Rank	SD
a. Fever	17	27	0	15	41	2.64	2	1.62
b. Cold	17	31	0	11	41	2.72	1	1.64
c. Wound	8	4	0	4	84	1.48	11	1.21
d. Boils	7	6	0	1	86	1.47	12	1.21
e. Acne	10	7	0	1	82	1.62	8	1.37

Types of some common	5	4	3	2	1	Mean	Rank	SD
diseases/disorders								
f. Chickenpox	12	4	0	3	81	1.63	7	1.39
g. Measles	19	13	0	1	67	2.16	4	1.70
h. Snakebite	0	0	0	0	100	1.00	22	0.00
i. Hydrophobia	0	0	1	0	99	1.02	21	0.20
j. Piles	8	4	1	3	84	1.49	10	1.22
k. Hypertension	2	2	0	3	93	1.17	17	0.71
1. Vermes	2	9	1	4	84	1.41	14	1.03
m. Menses	6	8	0	0	86	1.48	11	1.21
n. Poison	0	0	0	0	100	1.00	22	0.00
o. Hysteria	1	0	0	1	98	1.05	20	0.41
p. Suicide	0	2	0	0	98	1.06	19	0.42
q. Eye disease	6	9	1	1	83	1.54	9	1.24
r. Pneumonia	2	4	0	0	94	1.20	16	0.80
s. Blood Pressure	1	2	0	0	97	1.10	18	0.58
t. Eye Pain	3	10	0	3	84	1.45	13	1.10
u. Labour Pain	3	5	0	2	90	1.29	15	0.94
v. Vomit	7	9	1	6	77	1.63	7	1.28
w. Dysentery	7	15	0	6	72	1.79	5	1.39
x. Diarrhea	6	13	0	1	80	1.64	6	1.32
y. Diphtheria	0	0	0	2	98	1.02	21	0.14
z. Cough	12	27	0	10	51	2.39	3	1.59

**Table-6: Application of indigenous homeopathy treatment** 

Table-o. Application	i oi iii	uigen	ous ne	ռուշօր	amy i	ıı catılıc	III	
Application of indigenous homeopathy treatment	5	4	3	2	1	Mean	Rank	SD
a. Serious situation of diseases	4	6	22	13	55	1.91	4	1.17
b. Normal situation of diseases	42	30	15	2	11	3.90	1	1.28
c. Mediocre situation of diseases	2	8	34	6	50	2.06	3	1.16
d. Surgery only	0	1	22	3	74	1.50	5	0.87
e. Medicinal only	4	4	40	6	46	2.14	2	1.17

N.B. 5=Very much effective, 4=Effective, 3=Undecided, 2=Not so much effective, 1= Ineffective (The values of each cell indicate percentage)

The respondents were asked to rate the effectiveness of indigenous homeopathy treatment over foreign homeopathy treatment. More than half of the respondents (55%) informed that, compared to foreign homeopathy treatment, indigenous homeopathy treatment was not successful and effective. Less than half of the respondents (42%) thought that it was very effective in the normal situation of diseases with a highest value of mean (3.90) and SD (1.28). Half of the respondents (50%) think that it is ineffective in mediocre situation of diseases. A large number of respondents (74%) believe that it is ineffective in surgery only with a lowest value of mean (1.50) and SD (0.87). Nearly half of the respondents (40%) were undecided about its applicability in medicinal uses only.

**Table-7: Problems in getting indigenous homeopathy treatment** 

Problems in getting indigenous homeopathy treatment	ĸ	4	e	2	1	Mean	Rank	SD
a. Ineffective system	1	0	11	6	79	1.35	6	0.76
b. Unscientific system	10	10	5	18	57	1.98	9	1.39
c. Low quality of drugs	9	18	12	5	59	2.07	4	1.41
d. Low quality of treatment system	6	7	9	12	99	1.81	7	1.34
e. Curative but take too much time	62	11	3	5	19	3.92		1.61
f. Expensive treatment system	2	5	7	12	74	1.49	8	0.97
g. The scarcity of Indigenous medicine	30	8	8	5	48	3.16	2	5.24
h. Lack of proper diagnosis system	17	23	4	7	49	2.52	3	1.65
i. Lack of proper doctor	10	13	7	12	58	2.05	5	1.45

**N.B.** 5=Severe problem, 4=Problem, 3=Undecided, 2=Not so much problem, 1= No problem at all. (The values of each cell indicate percentage)

Table 7 shows that maximum number of respondents (79%) under survey do not consider indigenous homeopathy treatment as an ineffective system at all. More than half of the respondents (57%) do not think that indigenous homeopathy treatment is an unscientific system. The quality of drugs (59%) and quality of treatment (66%) for indigenous homeopathy system were not treated as problem to the maximum number of respondents. More than half of the respondents (62%) think that indigenous homeopathy 'treatment is curative but takes too much time', which was a severe problem of indigenous homeopathy treatment system. Maximum number of respondents (74%) do not think that indigenous homeopathy treatment is an expensive system.

The respondents under this study were asked to rate types of the problem they commonly face in getting indigenous homeopathy treatment. The higher mean value in this regard for "curative but takes too much time" was 3.92 and lower mean for "ineffective system" was 1.61. The higher SD value (5.24) for "scarcity of indigenous medicine" indicates the respondent data were scattered far away from the mean. The lower SD for "ineffective system" was 0.76 meaning the data were very close to their mean.

# Data Analysis based on Doctors' Responses

# Personal Information Table-8: Respondents by gender

	Gender	No. of Respondents	Percentages
Male		10	100%
Female		-	-
Total		10	100%

A total of 10 male homeopathy doctors were taken as respondents under the present study from Sirajganj Sadar to verify the responses of patient respondents.

Table-9: Respondents by age

Age group	No. of Respondents	Percentages
25-29	1	10%
30-39	1	10%
40-55	4	40%
Over 55	4	40%
Total	10	100%

Maximum numbers of the respondent (80%) belong to the age group from 40 to above.

# Indigenous technique prescribed in homeopathy treatment Table-10: Method of giving treatment to patients

Method of giving treatment	No. of Respondents	Percentages
Indigenous homeopathy		
treatment		
Foreign homeopathy	1	10%
treatment		
Mixed	9	90%
Total	10	10%

Under this study, majority percentage of the respondent doctors gave mixed treatment, i.e. both indigenous and foreign methods.

**Table-11: Ways of diagnosis** 

Ways of diagnosis	5	4	3	2	1	Mean	Rank	SD
a. Traditional way of diagnosis	8	1	0	1	0	4.60	1	0.97
b. Modern way of diagnosis	1	0	0	2	7	1.60	3	1.26
c. Both way of diagnosis	1	1	0	1	7	1.80	2	1.48

**N.B**. 5=Always, 4=Frequently, 3=undecided, 2=Sometimes, 1= Never. (The values of each cell indicate percentage)

A huge number of respondent doctors (80%) under the current study diagnosed diseases in the traditional way with the highest mean value of 4.60 and lowest SD value of 0.97. This means that they always diagnosed diseases in the traditional way. On the other hand, lowest SD indicates the SD was very much concentrating around its mean.

Table-12: Types of patients to get indigenous homeopathy treatment

Classes of people	5	4	3	2	1	Mean	Rank	SD
a. Upper income group	0	0	2	8	0	2.20	2	0.42
b. Middle income	1	7	2	0	0	3.90	1	0.57
group c. Lower income group	5	1	3	0	1	3.90	1	1.37

 $N.B.\ 5=Always,\ 4=Frequently,\ 3=undecided,\ 2=Sometimes,\ 1=Never.$  (The values of each cell indicate percentage)

The income groups of the patients who normally get the indigenous homeopathy treatment was also observed in the current study. Most of the people from upper

income group (80%) sometimes visit the doctors for getting indigenous homeopathy treatment. Indigenous homeopathy treatment is popular to people belonging to the middle (70%) and lower income groups (50%). The higher mean for "middle income group" and "lower income group" (3.90) indicates that people from middle- and lower-income groups visit these doctors frequently. The lower SD for "upper income group" (0.42) means that SD was very much concentrating around its mean.

**Table-13: Collection process of medicine** 

Collection of medicine	5	4	3	2	1	Mean	Rank	SD
a. Home made	0	0	1	0	9	1.20	3	0.63
b. Imported from other countries	0	0	1	3	6	1.50	2	0.71
c. From indigenous company	9	0	1	0	0	4.80	1	0.63

N.B. 5=Always, 4=Frequently, 3=Undecided, 2=Sometimes, 1= Never. (The values of each cell indicate percentage)

Most of the respondents (90%) always collect the medicine from various indigenous companies. The lowest mean (1.20) indicates that these medicines were never homemade. The highest SD for this group for "imported from other countries" (0.71) indicates that the SD was not concentrating around its mean.

Table-14: Measurement of the indigenous homeopathy treatment

Measurement of indigenous homeopathy treatment	w	4	æ	7	1	Mean	Rank	SD
a) How much do you think the effectiveness of the indigenous homeopathy treatment rather than foreign homeopathy treatment?	1	7	1	1	0	3.80	2	0.79
b) How much do you think that the patient is satisfied with indigenous homeopathy treatment?	3	9	0	0	1	4.00	1	1.15
c) How much do you think that indigenous homeopathy treatment is successful?	1	∞	0	0	1	3.80	2	1.03

N.B. a) 5=Very much effective, 4=Effective, 3=Undecided, 2=Not so much effective, 1= Ineffective

b) 5= Very satisfied, 4= Satisfied, 3= Undecided, 2= Not so much satisfied, 1= Dissatisfied

c) 5=Very Successful, 4=Successful, 3=Undecided, 2=Not so much Successful, 1= Unsuccessful. (The values of each cell indicate percentage)

In the question of the effectiveness of indigenous medicine, maximum respondent doctors (70%) think that indigenous homeopathy treatment is more effective than foreign homeopathy treatment. More than half of the respondents (60%) said that patients are satisfied with indigenous homeopathy treatment. Maximum number of the respondent doctors (80%) said that indigenous homeopathy treatment is successful. The mean value for "the patient is satisfied with indigenous homeopathy treatment" was 4.00 with SD 1.15, meaning that the respondent's data were scattered far away from mean. The lowest SD for "effectiveness of indigenous homeopathy treatment rather than foreign homeopathy treatment" was 0.79 meaning that the respondent's data were very concentrated around mean.

#### **Major Findings**

Respondent patients were not conscious regarding indigenous homeopathy treatment (45%) although maximum number of respondents were satisfied about what they get through this treatment system. Maximum numbers of patients think that this treatment is less expensive than foreign treatment (64%). Therefore, more than half of the respondents (53%) believed that diseases could be fully cured using this treatment system. Fever and cold (17%) are two common types of diseases for which patients always take indigenous medicine. Patients under survey also believed that this treatment system is very much useful in the case of normal situation of diseases. At the same time, respondent patients under survey also do not believe that this treatment system is not ineffective (70%) and unscientific (57%), though it takes too much time to cure diseases completely (62%). Scarcity of indigenous medicine is one of the major challenges to its survival. The study revealed that middle (70%) and lower income groups of people (50%) normally received indigenous homeopathy treatment in this society.

#### Conclusion

There is a huge problem of consciousness about indigenous homeopathy treatment among the people. Doctors and patients use overseas medicine rather than indigenous medicine due to the high quality of those medicine. People usually think that there are no modern facilities for diagnosis of diseases. Homeopathy doctors diagnose diseases in the traditional way rather than scientifically. The government also do not take proper initiative to improve the quality of indigenous medicine.

Mass awareness about the benefits of indigenous treatment needs to be raised among the people. There is a need to improve the quality of indigenous medicine. The government should take appropriate initiative to improve the quality of indigenous homeopathy treatment. Diagnosis system needs to be upgraded using the latest technology. Mass awareness also is needed among the doctors to reduce the use of overseas medicine. Moreover, Indigenous homeopathy school or training should be set up in different parts of the country so that people can quickly learn the modern application about the treatment.

The study indicates that the condition of indigenous knowledge regarding medicinal therapy in Bangladesh is deplorable. People are not reliant on indigenous medicine as the quality of medicine and treatment is not good. The government and the concerned authorities do not give adequate any attention to this sector, but it needs more attention of higher authority to preserve indigenous knowledge in all areas of the country.

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