

Indigenous knowledge among tribal women about medicinal plants

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ABSTRACT

For the present study six villages were selected and twenty tribal women from each village were randomly selected for the study, making the total sample size 120. Statistical tools used were frequency, percentage, correlational analysis and multiple regressions. Collection of the data regarding indigenous knowledge about name of disease, name of the plants, medicinal plants used in the form of seed, root, stem, bark, leaves, flowers, rhizomes, bulb was done. Findings revealed that the significant percentage (64.17) of tribal women was having medium knowledge about medicinal plants. Access to medicinal plants was found to be positively correlated with the knowledge while access to medical facilities shown negative significant contribution in the indigenous knowledge of tribal women about medicinal plants.

INTRODUCTION

The new branch of science, Medicothano Botany acts as a bridge between traditional knowledge of tribal people and botany regarding medicinal aspects of the global population which relies on traditional medicine and a large part of the therapies consists of plant extracts of their active constituents. India is very rich in medicinal plants and is continued to be an important therapeutic aid for alleviating ailments of human kind. The tribals living in and around the forests in India continue using an enormous range of medicinal plants and are aware of the necessity of the preservation and propagation of many plant species. Plants are one of the most important sources of medicine. The application of plants as medicines dates back to prehistoric period. In India, the references to the curative properties of some herbs in the *Rigveda* seems to be the earliest records of use of plants in medicines.

The medicinal plants are extensively utilized throughout the world in two distinct areas of health management – traditional system of medicine and modern system of medicine. The traditional system of medicine mainly functions through two distinct streams: 1) Local or Folk Tribal stream and 2) Codified organized Indian system of medicines like Ayurveda, Siddha and Unani etc. With these considerations, the present study entitled has

been undertaken with following objectives to study the personal and socio-economic characteristics of tribal women, to study the indigenous knowledge of medicinal plants of tribal women and to explore the relationship of selected characteristics of tribal women with indigenous knowledge about medicinal plants.

METHODOLOGY

From Kinwat taluka twenty villagers from six villages were randomly selected for the study. Thus, from each village 20 respondents were selected making the total sample size 120. From Kinwat tahsil randomly, six villages were selected namely as, Loni (Zendiguda), Kamthala, Ganeshpur, Kothari, Navakheda (Ghoti) and Amadi. Collection of data regarding indigenous knowledge of the tribal women about various medicinal plants was done. Ex-post-facto research design was used for the present study.

RESULTS AND DISCUSSION

The findings of the present study as well as relevant discussion have been presented under following heads:

Personal and socio-economic characteristics of tribal women:

It is observed from Table 1 that majority of the respondents were from old age group (80.30 per cent) and illiterate (97.51 per cent),

Key words :

Indigenous Knowledge, Tribal women, Medicinal plants

Accepted :
November, 2009

Table 1 : Personal and socio-economic characteristics of tribal women (N=20)

Sr. No.	Category	Frequency	Per cent
1.	Age		
1.	Young age (18 to 25 years)	0	0
2.	Middle age (26 to 50 years)	23	19.17
3.	Old age (51 and above)	97	80.83
2.	Education		
1.	Illiterate	117	97.51
2.	Pre-primary	01	0.83
3.	Secondary	02	1.66
3.	Landholding		
1.	Landless	66	55
2.	Marginal	31	25.83
3.	Small	23	19.17
4.	Occupation		
1.	Agricultural labour	64	53.34
2.	Agriculture	22	18.33
3.	Agriculture + Agricultural labour	34	28.33
5.	Annual income		
1.	Low (upto 11,500/-)	13	10.83
2.	Medium (11,501/- to 54,000/-)	87	72.50
3.	High (54,001/- and above)	20	16.67
6.	Cosmopoliteness		
1.	Low (upto 2)	39	32.50
2.	Medium (3-4)	47	39.17
3.	High (5 and above)	34	28.33
7.	Sources of information		
1.	Low (upto 1)	31	25.83
2.	Medium (2-3)	57	47.50
3.	High (4 and above)	32	26.67
8.	Access to medicinal plants		
1.	Poor (upto 12)	21	17.50
2.	Fair (13-16)	56	46.67
3.	Good (17 and above)	43	35.83
9.	Access of medical facilities		
1.	Poor (upto 3)	60	50.00
2.	Fair (4-5)	60	50.00
3.	Good (6 and above)	00	0.00
10.	Traditionalism		
1.	Low (upto 14)	44	36.67
2.	Medium (15-18)	45	37.50
3.	High (19 and above)	31	25.83

whereas, 55.00 per cent were landless. More than half (53.34 per cent) of the respondents were agricultural labourers, having medium level of annual income (72.50 per cent), medium cosmopoliteness (39.17 per cent), having medium level of sources of information (47.50 per

cent), fair access to medicinal plants (46.67 per cent), medium access to medical facilities (50.00 per cent) and medium level of traditionalism (37.50 per cent). The present finding is supported by the results of Jangam (1996), Bimla *et al.* (2004), Deshmukh *et al.* (2004), Kamta *et al.* (2004) and Navraraj (2006).

Indigenous knowledge of medicinal plants of tribal women:

It is noticed from Table 2 that remarkable percentage (64.17) of the respondents had 'medium' knowledge, while 20.00 per cent of the respondents had 'low' knowledge about medicinal plants and 15.83 per cent of the respondents had 'high' knowledge about the medicinal plants. The average knowledge score of the respondents was 15.17. These findings are in conformity to the observations of Jangam (1996) and Darbha (1997).

Table 2 : Distribution of the tribal women according to their indigenous knowledge level about medicinal plants

Sr. No.	Category	Frequency	Per cent
1.	Low (upto 12)	24	20.00
2.	Medium (13-18)	77	64.17
3.	High (19 and above)	19	15.83
	Total	120	100.00

Relationship between the characteristics of tribal women according to their indigenous knowledge about medicinal plants:

To find out the relationship of selected variables of tribal women with their knowledge level, the data were subjected to compute the coefficient of correlation and the results are presented in Table 3. Perusal of the findings of the table indicates that variable like access to medicinal plants had significant and positive relationship with

Table 3 : Relationship between selected characteristics of tribal women and their indigenous knowledge about medicinal plants

Sr. No.	Characteristics	'r' values
1.	Age	-0.121
2.	Education	-0.109
3.	Land holding	-0.012
4.	Occupation	-0.039
5.	Annual income	-0.094
6.	Cosmopoliteness	-0.135
7.	Sources of information	0.048
8.	Access to medicinal plant	0.256**
9.	Access to medical facilities	-0.092
10.	Traditionalism	0.073

** indicates significance of value at P= 0.01

indigenous knowledge of tribal women about medicinal plants of whereas, age, education, land holding, occupation, annual income, cosmopolitaness, access to medical facilities have not shown any significant relationship with knowledge about medicinal plants.

The respondents belonging to tribes might be having better knowledge of the use of medicinal plants for different diseases, therefore, the information might have penetrated to young generation of the tribes. The finding is similar to those reported by Sharma (2000), Anand and Singh (2001) and Navaraj (2006).

Multiple regression analysis of selected characteristics of tribal women and their indigenous knowledge about medicinal plants:

The data were subjected for multiple regression analysis to check the further variables on knowledge of tribal women about medicinal plants which have been presented in Table 4. Data revealed that the selected independent variables have explained variation in indigenous knowledge of tribal women about medicinal plants to the extent of only 19.3 per cent. The 'F value 2.35 was found to be non-significant indicating that the variation in indigenous knowledge can not be explained by the variables included in the study.

The access to medical facilities has shown negative significant contribution in the knowledge of tribal women

Table 4 : Multiple regression analysis of characteristics of tribal women and their knowledge

Sr. No.	Characteristics	Reg. coeff 'b'	SE of 'b'	't' value
1.	Age	-0.0198	0.0354	-0.5603
2.	Education	-1.1472	0.9280	-1.2362
3.	Land holding	0.5311	0.7717	0.6882
4.	Occupation	0.1019	0.2082	0.4895
5.	Annual income	-0.0423	0.0311	-1.3580
6.	Cosmopolitaness	-0.2706	0.2403	-1.1261
7.	Sources of information	0.3963	0.2842	1.3940
8.	Access to medicinal plant	0.2081	0.1268	1.6411
9.	Access to medical facilities	-1.0181	0.4690	-2.1706*
10.	Traditionalism	-0.0275	0.0911	-0.3016
R ² 0.193		F value 2.354		

about the use of medicinal plants as Vaidya who also prescribe the medicinal plants. These findings are in line with Navaraj (2006).

Conclusion:

It can be concluded that the tribal women had medium indigenous knowledge about the medicinal plants. Findings revealed that the significant percentage (64.17) of tribal women was having medium knowledge about medicinal plants. Access to medicinal plants was found to be positively correlated with the knowledge while access to medical facilities shown negative significant contribution in the indigenous knowledge of tribal women about medicinal plants.

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