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Indigenous use of medicinal plants for digestive problems in Punjab

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ABSTRACT

Modern lifestyle is highly stressful, fast paced and can involve regularly eating salty, processed foods, convenience foods, excessive alcohol consumption, lack of exercise using recreational drugs and relying heavily on prescriptive and non-prescriptive drugs to get rid of our illness. All this can lead to a dysfunctional digestive system and thus an unhealthy body. If food is not digested properly, the cells lack the nourishment required for the optimal functioning. Most of the health problems have their roots in digestive system. If stomach is unhealthy, the rest of the body can potentially suffer as well. The use of medicinal plants for prevention and cure of ailments even today is found in families with elderly women. But in nuclear families, the use of medicinal plants is not found prevalent due to their ignorance or not availability of time. Thus, the present study was undertaken to study the use of medicinal plants for digestive problems in Punjab which will be useful in improving present research. The data was collected personally from 240 women equally representing rural and urban population of three socio cultural zones of Punjab state regarding sixteen medicinal plants documented under AICRP on Home Science in Punjab. The data were analyzed with the help of frequency distribution and percentages. Results of the study revealed that majority of the respondents had low level of extent of use of medicinal plants

Key Words : Extent of use, Medicinal plants, Respondents

INTRODUCTION

Plants have always played a great role in the growth and development of humans. First and the most important necessity for human life is the oxygen which is provided by the plants. Besides, for day to day life, plants offer food, fodder, fuel wood, timber, dyes, latex, gums, fibers, shelter, fruits etc. Additionally there are many plant species which have continuously been used as traditional medicines.

The vast expense of the plant kingdom contains substantial number of trees, herbs and shrubs which have unique medicinal value. Medicinal plants have mainly been used for human nutrition, flavoring for meals, remedy for various diseases and food for animals (Sekeroglu *et al.,* 2006). According to WHO (2002) approximately 20,000 plants are

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medicinally important and about 80 per cent of the world's people depend on traditional medicine for their primary health needs. There are considerable economic benefits in the development of indigenous medicines and in the use of medicinal plants for the treatment of various diseases. Due to less communication means, poverty, ignorance and unavailability of modern health facilities, most people especially rural people are still forced to practice traditional medicines for their common day ailments. A vast knowledge of how to use the plants against different illnesses may be expected to have accumulated in areas where the use of plants is still of great importance.

Research studies conducted in various parts of the country are in agreement that the flora in connection with indigenous knowledge is diverse and needs to be documented (Bhatti *et al.,* 2001, 2002; Qureshi *et al.,* 2001, 2009; Qureshi and Bhatti, 2008, 2009; Khan and Khatoon, 2007; Ahmad *et al.,* 2009). The mountain communities of Khunjerab, Shimshal, Misgar and Chipursan valleys do have a long history of using local herbs to meet their daily life needs but very little is known about the local flora (Qureshi *et al.,* 2011) and its traditional use. With the passage of time, modernization and unwise exploitation have fast declined this resource and related knowledge everywhere in the world, and so in the communities of Khunjerab National Park. Due to ever increasing disturbances and pressures on natural ecosystems coupled with loss of interest amongst various groups, especially in youngsters there is a decline of the native flora and its potential uses in the area.

Thus, keeping in view the use of medicinal plants the present research was designed to study the extent of use of medicinal plants for digestive problems by the women and to ascertain the relationship of socio-personal characteristics with the extent of use of women.

METHODOLOGY

The study was conducted in three socio-cultural regions *i.e. Majha, Malwa* and *Doaba*

Table A : Medicinal plants selected for the study

Common name	English name	Botanical name
Piyaz	Onion	Allium cepa
Sounf	Fennel	Foeniculum vulgare
Jamun	Black plum	Syzygium cumini
Pudina	Mint	Mentha arvensis
Methi	Fenugreek	Trigonella foenum
Palak	Spinach	Spinacia oleracea L
Tulsi	Sacred basil	Ocimum tenuiflorum
Harad	Black myrobalan	Terminallia chebula
Hari mirch	Green chillies	Capsicum anum
Ajwain	Omum	Trachyspermum ammi
Adrak	Ginger	Zingiber officinale
Pipal	Sacred fig	Ficus religiosa
Anar	Pomegranate	Punica granatum
Nimbu	Lime	Citrus aurantifolia
Illiachi	Cardamomum	Elettaria cardamomum
Lahsun	Garlic	Allium sativum

of Punjab state. One district was selected randomly from three regions. *Gurdaspur* from *Majha*, *Faridkot* from *Malwa* and *Hoshairpur* from *Doaba* for the study. Each of the districts was further represented by four blocks. One village was selected from each of the selected block. Similarly for representation of urban sample, four localities representing different socio-economic status and also the ecological status of the city were selected purposively from each city from *Majha, Malwa and Doaba* zone. In all 240 women (120 rural + 120 urban) heads of the families were selected for the purpose of study. Data were collected by personal interview using a pretested structured schedule. The data analyzed by using frequency distribution, percentages, mean scores and coefficient of correlation.

RESULTS AND DISCUSSION

The results of the study undertaken are presented and discussed below:

The extent of use of selected 16 medicinal plants was measured on three point continuum-always used, sometimes used and never used. The response of respondents was sought regarding extent of use of medicinal plants for their properties. These properties refer to the medicinal plants documented for the state of Punjab in the technical bulletin "Medicinal Plants for Digestive Disorders", ICAR (2003).

Data presented in table 1 revealed that a large majority about 94 per cent, 85 per cent, 74 per cent and 68 per cent never used *Pipal, Hari mirch, Jamun* and *Harad* respectively for digestive problems. It was also found that the medicinal plants percentage of respondents who always used for treating digestive problems like *Nimbu* (46.25 %), *Sounf* (42.50 %), *Pudina* (42.08 %) and *Ajwain* (38.75 %) were always used by the respondents. It further shows that about 27 per cent of respondents were sometimes used *Nimbu* for digestive problems followed by *Anar* (21.67 %), Ajwain (20.83 %) and *Lahsun* (19.58 %).

Mean scores revealed that *Nimbu* (1.18) was used most followed by *Sounf* (1.01), *Ajwain* (0.98) and *Anar* (0.75). It was found *Pipal* (0.08) was least used by women followed by *Harimirch* (0.26) and *Jamun* (0.39). It may be concluded that the use of medicinal plants was considerably low as compared to the awareness.

The extent of use of medicinal plants was measured on three point continuum *i.e.* always used, sometimes used or never used. These were assigned score of 2, 1 and 0 respectively. The scores pertaining to use of medicinal plants were calculated for each respondent and a score range of 0-132 was obtained and it was categorized into low (0-44), medium (45-88) and high (89-132).

The data pertaining to the extent of use of medicinal plants by selected women is presented in Table 2. The data revealed that a majority of respondents about 59 per cent from *Majha*, 50 per cent from *Malwa* and 28 per cent from *Doaba* had low extent of use regarding medicinal plants which were used for digestive problems. Similarly in *Malwa* region 46.25 per cent of respondents followed by 45 per cent of respondents from *Doaba* and 41.25 per cent from *Majha* region had medium level of extent of use regarding medicinal plants respectively. It was very important to note that no respondent from *Majha* region is under 'high' category of extent of use of medicinal plants. Very small percentage of about 4 per cent from *Malwa* had high level of use while about 28 per cent from *Doaba* were in this category. The table further depicted that overall extent of use of respondents were (45.42

Table 1: Distribution of respondents regarding extent of use of medicinal plants for digestive problems (n=240)

Extent of use	Always used	Sometimes used	Never used	Mean score range
	f	f	f	(0-2)
Plant	(%)	(%)	(%)	
Piyaz	78	19	143	0.72
	(32.50)	(7.90)	(59.60)	
Sounf	102	39	99	1.01
	(42.50)	(16.25)	(41.25)	
Jamun	33	29	178	0.39
	(13.75)	(12.08)	(74.17)	
Pudina	101	35	104	0.46
	(42.08)	(14.59)	(43.33)	
Methi	73	40	127	0.77
	(30.42)	(16.67)	(52.91)	
Palak	47	45	148	0.57
	(19.58)	(18.75)	(61.66)	
Tulsi	56	36	148	0.60
	(23.33)	(15.00)	(61.67)	
Harad	41	35	164	0.48
	(17.08)	(14.58)	(68.34)	
Harimirch	28	8	204	0.26
	(11.67)	(3.33)	(85.00)	
Ajwain	93	50	97	0.98
	(38.75)	(20.83)	(40.42)	
Adrak	57	45	138	0.65
	(23.75)	(18.75)	(57.50)	
Pipal	6	9	225	0.08
	(2.50)	(3.75)	(93.75)	
Anar	65	52	123	0.75
	(27.08)	(21.67)	(51.25)	
Nimbu	111	64	65	1.18
	(46.25)	(26.67)	(27.08)	
Illachi	63	37	140	0.67
	(26.25)	(15.42)	(58.33)	
Lahsun	64	47	129	0.72
	(26.67)	(19.58)	(53.75)	

%) low, (44.17 %) medium and (10.42 %) had high level of extent of use.

The relationship of socio-personal characteristics, *i.e.* age, education, caste, occupation, family type, family size, family income, organizational membership, social participation, mass media exposure with extent of use was computed with the help of correlation test (r- value). It was also found that education; caste, family size and family income had significant negative correlation with the level of use of medicinal plants. It is interesting to note that social participation was significantly correlated with the use of medicinal plants at one per cent

Table 2 : Zone wise distribution of respondents regarding extent of use in respect of medicinal plants for digestive problems

Extent of use	*Majha* (n1= 80)	*Malwa* (n2= 80)	*Doaba* (n3= 80)	Overall (n= 240)
	f (%)	f (%)	f (%)	f (%)
Low (0-44)	47 (58.75)	40 (50.00)	22 (27.50)	109 (45.40)
Medium (45-88)	33 (41.25)	37 (46.25)	36 (45.00)	106 (44.20)
High (89-132)	0 (0)	3 (3.75)	22 (27.50)	25 (10.40)

Table 3 : Relationship of socio-personal characteristics of respondents with extent of use of medicinal plants

Sr. No.	Socio - personal characteristics	Level of use
		r
1	Age	0.1487
2	Education	-0.1045
3	Caste	-0.0366
4	Occupation	0.0819
5	Family type	0.1167
6	Family size	-0.0346
7	Family income	-0.0745
8	Organizational membership status	0.0984
9	Social participation	0.2553**
10	Mass media exposure	0.0496

level of significance.

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