

Study of ethno-gynecologically important medicinal and other plants used for women specific purposes in Murtazaabad, Hunza, Pakistan

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Abstract: Ethno-gynecological study was conducted in Murtazaabad Valley, Hunza. Study revealed that elderly women (N=40) of age fifty and above do not use allopathic medicine and rely on indigenous plants for their women specific five major purposes i.e. beauty, smoothening deliveries, back pain, menses pains and bleeding control during menses. They identified eighteen (n=18) plants belonging to 10 plant families and members of family Rosaceae dominate overall consumption in this regard. Centuries old practices are rapidly diminishing and younger generation has forgotten their ethnobotanic heritage and totally depend on allopathic and commercial products for ailments and aspects mentioned above. Such information will extinct in a generational time or in the next thirty (30) years if not properly documented and institutionalized. Folk wisdom is value and a great source for novel drug discoveries for pressing health issues and their management. Present study was aimed at documentation of women specific ethnomedicinal information from the area which has never been explored on scientific basis.

[Akhtar S, Akhter N, Kazim S, Khan T. **Study of ethno-gynecologically important medicinal plants used for gynecological and other women specific purposes in Murtazaabad, Hunza, Pakistan.** *Nat Sci* 2016;14(6):36-39]. ISSN 1545-0740 (print); ISSN 2375-7167 (online). <http://www.sciencepub.net/nature>. 7. doi:[10.7537/marsnsj140616.07](https://doi.org/10.7537/marsnsj140616.07).

Keywords: Infertility, Gonorrhoea, Irregular Menstrual cycle, infertility, leucorrhoea

Introduction

The North of Pakistan Gilgit-Baltistan is popular for its natural beauty. Gilgit-Baltistan extends above 28,000 square miles (Rasool, 1998). It is situated across the world's largest and highest mountain ranges i.e. Hindukush, Karakorum and Himalaya (Shah, 2013). The area is rich with the large number of valuable medicinal herbs, which are used for folk medicines (Malik *et al.*, 2015). The Hunza Valley lies within mighty Karakoram Mountain Range in Gilgit-Baltistan. It is located at an elevation of 2,500 meters (8,200 ft) (Anonymous, 2015a).

Since the dawn of civilization, plants have remained a major source for food, fiber and shelter. Plant have also been used for control and treatment of diseases. According to WHO, traditional medicine is set of indigenous knowledge including herbal medicine, information, methods of drug preparation and faith exist among different cultures to maintain health that transfer generation after generation (WHO, 1991).

The most primitive history indicates that human use plants for different remedial purpose (Winslow and Kroll, 1998). It is estimated that 80% people of world use medicinal plants for healthcare (WHO, 1991; Ates and Erzdogrul, 2003). There are 5000 folk medicines existing in china (Li, 2000). Ayurveda (a medical system) is used in India that had existed from 5000 years (Morgan, 2002).

Ethnobotany deals with study of interaction plants and human culture, it provide local people's

opinions of traditions and scientific knowledge (Shuib *et al.*, 2014). Ethno-gynecology is a traditional approach of local tribes to deal with women physical condition issues. Using medicinal plants, treatments used to cure gynecological troubles such as abortion, menstrual pain, menopause, morning sickness, leucorrhoea, infertility, delivery problems, among others, are taken into concern (Patel, 2012; Lawal *et al.*, 2013). Many researchers emphasize the importance of medicinal plants that related to women diseases and healthcare (Shaheen *et al.*, 2012; Noor and Kulsoom, 2011; Gilani *et al.*, 2001; Haq and Hussain, 1993; Farooq, 1990; Chaurhri, 1959) but there is very limited data of plants related to treat women diseases are accessible as compare to other ethnomedicinal plants in the World and Pakistan (Shah *et al.*, 2013; Ramana *et al.*, 2005; Sharma, 2002).

Women in western Himalaya of Pakistan use medicinal plants for various reasons and curing diseases. Commonly used plants among these women are *Viburnum foetens*, *Bergeniaciliata*, *Berberis lycium* Royle, *Geranium wallichianum* Sweet and *Skimmia laureola* (Qureshi *et al.*, 2009). Similarly, different plants are used by tribal women folk in Balochistan for treatment of women specific diseases (Tareen *et al.*, 2010). There is no systematic information available regarding ethno-gynecologically important plants from Gilgit-Baltistan, Pakistan. This present research is an attempt to document before the elderly women carrying information and folk wisdom

die as the new generation does not practice these traditional diseases control and management tools and techniques and rely on the allopathic medication more.

Research is unique in its nature and scope from the area.



Figure 1: Map of study area shown as a black dot in red area of Gilgit-Baltistan.

Material and Methods

Study Area:

Murtazaabad is located at the bank of Hunza River in the centre of district Hunza of Gilgit-Baltistan, Pakistan. Earlier, it was called 'Neray Das'. Aliabad is situated in the East, Nasirabad in the West and the Hunza River in the South (**Anonymous, 2015b**). People speak Burushaski language in the entire area (**Figure 1**).

Data Collection:

A purposeful survey, following a snow ball technique, was conducted during October and November of 2015 to collect information on the use of different medicinal plants by elderly women for various purposes. A standardized questionnaire was used to gather data through in-depth interviews from forty (n = 40) women above the age of fifty (50).

During the interview, informants age, profession, locality, vernacular name of the plant, purpose of uses, habit, habitat, part used, preparation method of drug,

dose, use frequency health care related information were recorded.

Plants collected during survey were identified at department of Biological Sciences, Karakoram International University with help of herbarium specimen, taxonomist consultation and eFlora of Pakistan.

Results and discussion

Profession and medication scope:

All women above age fifty (50) interviewed were house wives and have never gone to schools so they were illiterate. They have never been to use allopathic drugs in their lives and depend on medicinal plants and folk practices for their healthcare management and skin care.

Major Uses:

They identified plants in vernacular names (**Table1**) and identified five major uses of plants i.e. beauty, smoothening deliveries, back pain, pain in menses and bleeding control during menses (**Figure2**).

Table 1. Medicinal plants used, vernacular names, parts used, preparation methods, diseases and use frequency						
Scientific Name	Family	Local Name	Part use	Method of preparation	Frequency	Disease
<i>Punica granatum</i>	Punicaceae	Beechil (tomaw)	dried pericarp	Powdered pericarps are taken with a glass of milk.	Half teaspoon	Menses pain and back pain.
<i>Curcuma longa</i>	Zingiberaceae	Halichi (Haldi Uudu)	stem	Powdered pericarps are taken with a glass of milk.	Half teaspoon	Menses pain and back pain.
<i>Carthamus tictorius L.</i>	Compositae	poong	dried petal	Small amount of powder of dry petal mixed with milk.	Small amount	Menses pain and back pain.
<i>Berberis lycium Royle</i>	Berbridaceae	Ishkeen	root/stem/bark	Small amount of powder of dry root, stem or bark mixed with milk	Small amount	Menses pain and back pain.
<i>Linum usitatissimum</i>	Linaceae	Homans	seed	powder of roasted seed are mixed with milk or tea taken once or twice daily during labor pain	One or two table spoon	Smooth delivery and cure back pain.
<i>Daucus carota L.</i>	Apiaceae	Ghasoon	seed	During labor pain fumigated on seed to induce smooth delivery.		smooth delivery
<i>Elaeagnus angustifolia</i>	Elaeagnaceae	Gindawar	Petals and Gum	Dried flower powder is mixed with flour and made bread or chapatti. The gum is used as Shampoo for long, healthy and silky hairs.		Stop bleeding during menses and hair care
		Shekarkuch (Mathi)	Seed	Powder of dry seeds mixed with milk during menses pain.	Small amount	menses pain
		Shooto	leaves	Powder of dry seeds mixed with milk during menses pain.	Small amount	Menses pain.
		Hamamo	Whole plant	Extract water and use that water to make dose (Giyaling).		Cure back pain.
<i>Prunus armenica</i>	Rosaceae	joo	Seed and fruit	Crushed roasted seed make paste (minah) and apply on face and hands. Decoctions of fruits apply on face.	once a day for beauty, skin care	Skin care and beauty
<i>Morus alba L.</i>	Moraceae	Berunch	Fruit or mulberries	Fresh mulberries were directly apply on face and hands and dried ones are soaked in water and apply on face and hands	Once or twice daily.	Reduce freckles and skin care.
<i>Prunus amygdalus</i>	Rosaceae	Balth	Flower (Petals)	Petals were crushed and mixed with sheep milk (chop).	apply on face once daily	Fairness and beauty.
<i>Rosa indica</i>	Rosaceae	Ghulab	Flower (Petals)	Petals were crushed and mixed with sheep milk (chop).	apply on face once daily	Fairness and beauty.
<i>Ephedra gerardiana</i>	Ephedraceae	Sopating	Stem	Stems are boiled in water and apply on face.	once daily	Fairness and beauty.

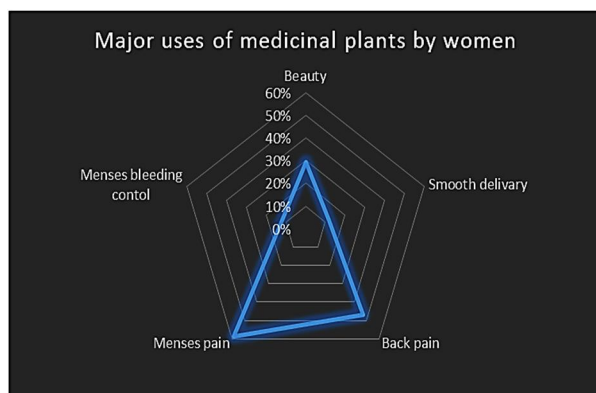


Figure 2: Major uses of medicinal plants

Parts used:

Research revealed that seed and flowers are very frequent use (25% each) for different purposes followed by fruit and whole plant (13% each), stem,

underground stem, root and endocarp (6% each) respectively (Figure 3).

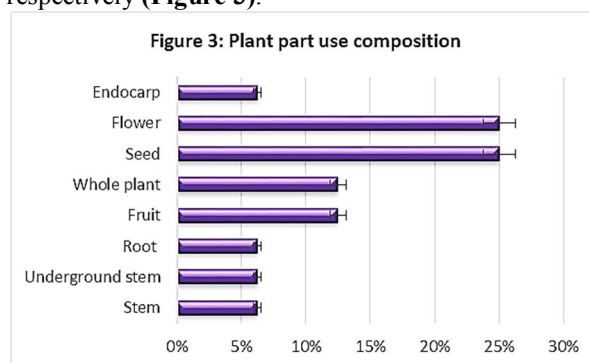


Figure 3: Parts uses of medicinal plants

Conclusion

Ethno-gynecological wisdom is perishing rapidly and young generation is ignorant about it. This is due to access to alternate healthcare facilities and lack of

care for cultural heritage and folk wisdom. Several researches highlight importance of ethnobotanical knowledge documentation but in absence of any proper institutionalization of such valuable information is on erosion and in near future of another one generation of a period of another 30 years this will be forgotten forever from the area. Most of life saving drugs are plant and ethnobotany inspired and has been serving a worth source for novel discovery of drugs besides being a provision of healthcare for millions of souls across the globe.

This is high time to document and institutionalize the ethnobotanical information from the traditional societies before they are engulfed by the commercialization and allopathic healthcare system. Such information is also a great source of identity of traditional communities which have helped establishment of laboratories and keeping alive the connection of human beings with their nature.

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