

Scientific Validation of Indigenous Knowledge of Herbs used by Rural Women in Dantiwada Taluka.

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Abstract

The present study was conducted in Dantiwada taluka of Banaskantha district. Sardarkrushinagar Dantiwada Agricultural University runs RKVY scheme. There are 16 villages under RKVY, out of 16 villages, 8 villages were randomly selected for the study. There are mostly five types of indigenous herbs of plant & plant materials were being used by rural women. Indigenous herbs materials i.e., Plants, Seeds & Spices, Roots & Tubers, Fruits and Others) were found scientifically valid by ayurvedic doctors. This herboepidemiology study of Indigenous herbs was found in curing common diseases of children (viz., vomiting of milk in child, fever, cold & cough, pain in teeth, indigestion, digestion, pain in abdomen, body pain, muscle pain, intestinal worms, Diarrhea, hiccups, increase hunger, acne, urination etc) and also for curing Maternal health related diseases(i.e., fever, cold & cough, pimples, indigestion, constipation, easy delivery, enhance milk production, body & muscle pain, bleeding in lactation, depression on head, diarrhea, vertigo, nausea & vomiting, increase hunger, abdomen pain and back-ache etc.

Key Words : Rural women, Indigenous, Knowledge, scientific validation, Herbs

INTRODUCTION:

Indigenous food plants have vital role to play as staple foods, because they provide essential nutrients. They are especially important to women who are the ones to cultivate them, feed them to their children and utilize them for income earning purposes. Ayurveda, the ancient healing system from India, has steadily increased in popularity in the western world in recent years. The role of traditional medicines in the solution of health problems is invaluable on a global level. The present study was conducted in Dantiwada taluka of Banaskantha district. There are randomly selected villages of Sardarkrushinagar Dantiwada Agricultural University runs under RKVY scheme for the research study. There are mostly five types of indigenous herbs of plant & plant materials were being used by rural women. of dantiwada taluka.

The Indigenous Herbal compound as pearls of wisdom exists in our Indian Traditional life style at household level. The rural communities, especially in remote areas & the ethnic communities hold the basket of wisdom of indigenous practices. These practices gain strength at local level for its sustenance in absence of organized Herbal compound system.

METHODOLOGY:

The present study was conducted in Dantiwada taluka of Banaskantha district. Sardarkrushinagar Dantiwada Agricultural University runs RKVY scheme. Under this project university has adopted 16 villages. Out of these villages, 8 villages were randomly selected for the study. Proportionate random sampling was done. Total 120 respondents were selected for the study. The data were collected by personal interview. The interview schedule was developed with discussion with experts, scientists and extension officers working in the university. On the basis of findings the questionnaire were sent to the 100 Aurvedic doctors (Experts in Ayurvedic field) for identifying Herboepidemiology of herbal compound scientifically. But only 30 Aurvedic doctors gave the response.

FINDINGS AND DISCUSSION:

Table: 1 Scientific Validation of Indigenous Herbal compounds (plants) by ayurvedic doctors used by rural women for Child & Maternal Health (n=30)

Sr. No.	Name of the Plant	Purpose	Scientific Reason	Freq.	Per cent (%)
1.	Mint (Pudina)	Vomiting of milk in child	Because In mint Menthona oil is present, it prevents abdominal pain in child	8	26.00
2.	Sacred basil (Tulsi)	- Fever - Cold & Cough	To cure cough and fever because hydro-distilled essential oils in it	8	26.00
3.	Neem	- Pain in teeth (child) - Pimples - Fever	-it prevents fever in maternal & child health because phenolic components present in barks of <i>Azadirachta indica</i>	7	23.00
4.	Coriander leaves	Indigestion	It prevent pain & fever because antimicrobial activity of the essential oil of <i>Coriandrum sativum</i>	13	43.00
5.	Malabar nut	-Fever -Cough	it cures Cold, Cough and fever because Modulatory influence of Adhatoda vesica (<i>Justicia adhatoda</i>) leaf extract on the enzymes of xenobiotic metabolism, antioxidant status and lipid peroxidation in mice	8	26.00

The data depicted in table 1 indicate that 43.00 per cent of the doctors have scientifically valid that coriander leaves prevent pain and fever because of antimicrobial activity of the essential oil of *Coriandrum sativum*. So far as Mint, Tulsi and Malabar nut are concerned. 26.00 per cent of doctors opined that the plants for curing vomiting, fever and cough. 23.00 per cent of the doctors said that neem leaves are useful in curing pain in teeth, pimples and fever for child as well as maternal health.

Table: 2 Scientific Validation of Indigenous Herbal compounds (seed & spices) by ayurvedic doctors used by rural women for Child & Maternal Health (n=30)

Sr. No.	Seeds & Spices	Purpose	Scientific Reason	Freq.	Percentage (%)
1.	Dill seeds	Digestion of milk(in child) - Constipation, - Fever - Easy delivery, - Enhance milk Production, - Indigestion	Remove constipation because Essential Oil of Long-Time Stored Dill (<i>Anethum graveolens</i> L.) present	10	33.00
2.	Clove	-Cold & cough	- it mitigate gas and cuff because the essential oil are henylpropanoids, clove essential oil possesses anti-inflammatory, cytotoxic, insect repellent and anesthetic properties	11	36.00
3.	Black cumin	Fever in child	it enhances digestibility of Breast milk because essential oil possesses anti-inflammatory, cytotoxic, insect repellent and anesthetic properties	8	26.00
4.	Omum	Cold & cough ,Constipation -Fever, -Pain in abdomen -Indigestion(in child) -Body pain	it prevent gas cuff disease because <i>Trachyspermum ammi</i> essential oil (EO) is present	9	30.00
5.	Black pepper	-Cold & cough, -Easy delivery,-Fever	It destroys gas and cuff because it is naturally occurring antioxidative compounds - alpha-tocopherol,	9	30.00
6.	Fenugreek	-Indigestion, -Fever, -Easy delivery -Muscle pain	It destroys gas and cuff. because whole powder of <i>Trigonella foenum graecum</i> seeds and its extracts were tested for their hypoglycemic effect on normal and diabetic model rats	11	36.00
7.	Cinnemum (tajj)	-For easy delivery	It is for easy delivery because <i>Cinnamomum verum</i> is present	12	40.00

8.	Fennel	-Bleeding (in lactation) - Enhance milk production in lactation	It is also beneficial for bleeding the cooling because is Rich in volatile oil, anethole, increases milk gland production and results in more breast milk	10	33.00
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9.	Mustard (Rai)	-(oil) Depression on head -Indigestion -Pain in back bone -Body pain (oil massage) -Cold & cough	It will stop the hunger, food breakdown and cures to krumi because In it presence toxic Cd concentrations	8	26.00
10.	Castor (Divela)	-Intestinal worms in child(oil) -Constipation (both)	It is remove body pain. (massage purpose) because The composition of phloem sap reported for other plant species	9	30.00
11.	Opium (Khas-khas)	-Diarrhea in child & maternal health	It prevent diarrhea because It is extensively smoked as an intoxicant, Opium is the air-dried milky exudation obtained from excised unripe fruits	14	46.00

The data presented in table 2 indicate that, out of 11 seed spices, maximum 46.00 per cent of the doctors have scientifically valid that opium (Khas-khas) prevent diarrhea in child and maternal health because of intoxicant. 40.00 per cent of doctors said that the Cinnemum can be used for easy delivery. 23.00 per cent of the doctors told that neem leaves are useful in curing pain in teeth, pimple and fever for child as well as maternal health. 36.00 per cent doctors said clove and fenugreek is used in curing Cold & cough and Indigestion, Fever Easy delivery, Muscle pain respectively. Nearly 30.00 per cent of the docators said that dilsseds, fennel, black peper, omum are used for curing various diseases.

Table: 3 Scientific Validation of Indigenous Herbal compounds (roots and tubers) by ayurvedic doctors used by rural women for Child & Maternal Health (n=30)

Sr. No.	Roots & Tubers	Purpose	Scientific Reason	Freq.	Percent (%)
1.	Onion	-Hiccups in child	It Prevents excessive nose murder, because it is rich in powerful sulfur-containing compounds that are responsible for their pungent odors and for many of their health-promoting effects	9	30.00
2.	Ginger	-Fever -Cold & cough -Increase hunger	Prevent cold, cough and fever because shows its ameliorative effects could be related to inhibition of prostaglandin and leukotriene biosynthesis, is useful in inflammation and rheumatism	8	26.00
3.	Dry ginger	Body pain (massage in pregnancy)	It removes swelling body pain because its root has similar aromatic properties and plant also contains aristolochic acid and carcinogenic compound	12	40.00
4.	Garlic	-Cold & cough	It is good for Heart diseases because it naturally occurring sulfur compounds with profound phar	10	33.00

			macologic activity, one aspect of which may be cancer prevention.		
5.	Turmeric	-Cold & cough	It cures cold & cough, because Curcuminoids components of turmeric, which include mainly curcumin (diferuloyl methane), demethoxy- curcumin, and bisdemethoxycuremin it.	12	40.00

Forty per cent doctors said that dry ginger is useful in curing body pain and turmeric is useful in curing cold & cough because roots of dry ginger has aromatic properties and it also contains aristolochic acid and carcinogenic compound. While turmeric is having Curcuminoids components of turmeric, which include mainly curcumin (diferuloyl methane), demethoxy- curcumin, and bisdemethoxycuremin it. 33.00 per cent of the doctors said that garlic is used for cold and cough because it has naturally occurring sulfur compounds with profound phar macologic activity, one aspect of which may be cancer prevention. 33.00 per cent doctors opined that onion is used for curing Hiccups in child because it is rich in powerful sulfur-containing compounds that are responsible for their pungent odors and for many of their health-promoting effects

Table: 4 Scientific Validation of Indigenous Herbal compounds (fruits) by ayurvedic doctors used by rural women for Child &Maternal Health (n=30)

Sr. No.	Fruits	Purpose	Scientific Reason	Freq.	Percent (%)
1.	Plum (Ber)	-Pimples in child	It is applied to cure acne because it produce a local plum wine with a smooth, sweet, fruity taste and approximately 12% alcohol by volume	14	46.00
2.	Cashew nut	-Vertigo (in women)	It stops of nausea – vomiting in pregnancy because it contains Gallic acid and an acrid resin, anacardic acid, and cardol, are a good source of antioxidants.	12	40.00
3.	Almond	-Vertigo (women in pregnancy & lactation)	It gives energy (power) to the body because it is powerful anti-inflammatory agent that is appropriate when the skin is red	13	43.00

4.	Lemon	- Intestinal worms in child - Vertigo & bleeding in pregnancy & lactation - Vomiting & nausea	It cures nausea, vomiting because it is antibacterial And its oil may be used in aromatherapy	9	30.00
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Forty six per cent of the doctors said that plum can be used for curing pimples in child because it produces a local plum wine with a smooth, sweet, fruity taste and approximately 12% alcohol by volume. 43.00 per cent of doctors said that almond is used in pregnancy & lactation because it contains Gallic acid and an acrid resin, anacardic acid, and cardol, are a good source of antioxidants. 30.00 per cent of the doctors said that lemon is used for Intestinal worms in child and Vertigo & bleeding in pregnancy & lactation, Vomiting & nausea because it is antibacterial And its oil may be used in aromatherapy.

Table: 5 Scientific Validation of Indigenous Herbal compounds (others) by ayurvedic doctors used by rural women for Child & Maternal Health (n=30)

Sr. No.	Other material	Purpose	Scientific Reason	Freq.	Percent (%)
1.	Jaggery	-Cold & cough, -Urination in child -Vomiting of milk, -Easy delivery,-Fever, - Pain in abdomen, -Indigestion	It gives strength to the body because it contains sucrose, invert sugars, moisture and made up of other insoluble matter, is rich source of iron	10	33.00
2.	Afim	-Increase hunger, -Diarrhea in child	It is used to treat diarrhea and used as a pain medication and sleeping aid because it contains morphine and Codeine	9	30.00
3.	Mishri / sakar (red	-Vertigo &	It prevents low blood pressure because sugar is the mother	10	33.00

	mishri)	-Bleeding (in pregnancy & lactation period)	of all carbohydrates, is an excellent source of energy		
4.	Milk & milk products (milk, butter milk & ghee)	-Cold & cough (both) -Urination in child -Intestinal worms in child -Constipation (both) -Digestion of milk, Enhance milk, Production (in lactation),Pain in abdomen (in lactation) -Indigestion (in lactation)	It prevent urinary irritation, cough and constipation because it contains enzyme & many nutrients, The sugar lactose is found only in milk, it also contain several different carbohydrate including lactose, glucose, galactose, and other oligosaccharides	9	30.00
5.	Green leafy vegetables	-For child health, -Bleeding(in pregnancy& lactation)	It gives energy to the pregnant women because it has varied Moisture content of the leaves and carrots and is rich in copper, manganese and zinc	10	33.0
6.	Salt	-Cold & cough, Fever,- Urination in child -Constipation , -Vertigo in women	It prevent Gas & cough because It is made up of sodium and chloride, and are ionic compounds that can result from the neutralization reaction of an acid and a base.	8	26.00
7.	Bajara flour	- Cold & cough	-It increase (blood-building) H.B. because in it nitrogen, mineral balance, amino acid digestibility and digestibility of energy, fat and amino acids and richer in crude protein, gross energy, acid detergent fiber, amino acid profile and mineral content	12	40.00
8.	Wheat flour	-Cold & cough -Bleeding in women	It is rich source of carbohydrates & it give energy to the body because it contain viscoelastic property when mixed with water, because the gluten proteins are water compatible and thus will swell and interact	10	33.00
9.	Rice	-Diarrhea & Fever in child	It mitigate Gas and Pitt (acidity) because it found as salicylic acid, rice is abundant is most likely the products of natural hybridization	10	33.00
10.	Gund (Dry) & Gunda fruits	- Bleeding and back ache	Because it is natural antibiotic, bioremediation environmental solution for natural cleanup of toxic and complementary cancer survival medicinal plant.	12	40.00

Data presented in table 5 show that 40.00 per cent of the doctors said that bajara flour is useful in curing cold and cough because it has nitrogen, mineral balance, amino acid digestibility and digestibility of energy, fat and amino acids and richer in crude protein, gross energy, acid detergent fiber, amino acid profile and mineral content. Same number of per cent (40.00 %) doctors said that Gund (Dry) & Gunda fruits are useful in bleeding and back ache because it is natural antibiotic, bioremediation environmental solution for natural cleanup of toxic and complementary cancer survival medicinal plant.

CONCLUSIONS

It is concluded that different Indigenous herbs materials given in Table no. 1 to 5 (i.e., Plants, Seeds & Spices, Roots & Tubers, Fruits and Others) were found scientifically valid by ayurvedic doctors. This herboepidemiology study of Indigenous herbs was found in curing common diseases of children (viz., vomiting of milk in child, fever, cold & cough, pain in teeth, indigestion, digestion, pain in abdomen, body pain, muscle pain, intestinal worms, Diarrhea, hiccups, increase hunger, acne, urination etc) and also for curing Maternal health related diseases (i.e., fever, cold & cough, pimples, indigestion, constipation, easy delivery, enhance milk production, body & muscle pain, bleeding in lactation, depression on head, diarrhea, vertigo, nausea & vomiting, increase hunger, abdomen pain and back-ache etc).