



What's in the Kitchen: Conventional Household Practices during Minor Health Problems

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Authors' contributions

This work was carried out in collaboration between both the authors. Authors YB and KK conceived of the presented idea. Author YB designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Author KK encouraged author YB to investigate the idea, supervised the findings of this work, analyzed and reviewed the study. Both the authors read and approved the final manuscript.

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ABSTRACT

Objective: The Food habits of the people are the outcome of the general beliefs and are deep-rooted in the minds of the people of any community. Home remedies coming from the kitchen are the basis of treating commonly occurring illnesses for a long time. The present study was aimed to study the long-established household practices that are followed for the cure of minor health problems in North India (Uttarakhand) and assess their usage trends over three generations.

Study Design: Cross-sectional study.

Methods: The study was done in three districts of Garhwal region of Uttarakhand, namely Dehradun, Tehri Garhwal and Haridwar. The respondents were categorized in three age group range as- 20-34 years, 35-55 years and above 56 years. A structured diet recall interview schedule was prepared for the collection of data. The subjects were asked about the previous and current practices followed for the cure of minor health problems.

Results: A list of local food items used during various ailments like Cold/ Cough, Fever, Constipation, Vomiting, Diarrhea, Jaundice was prepared. A number of commonly used spices were used for the treatment along with few special recipe preparations. Among the age group above 56 years and 35-55 years, the percentage of respondents following traditional household

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practices during minor health problems and considering them better than medicine was more in rural areas while among 20-34 years of age group, the percentage was more for the urban population. It was noticed that the number of respondents following these practices slightly decreased through the generations, and are still practiced among the youngest age group interviewed (60.53% of rural and 66.67% of urban subjects).

Conclusion: Documentation and validation of these household remedies is required so that they can be used for the low-cost treatment of many common ailments.

Keywords: Home remedies; minor health problems; traditional household practices; ailments; food habits.

1. INTRODUCTION

Home remedies are perhaps the most elementary and frequently used means to treat illnesses. It is quite possible that treatment of human illnesses since the advent of humans started with home remedies, progressed to folk medicine and ended up in codified forms of traditional medicinal systems [1]. Food habits of the people are the outcome of the general beliefs and are deep-rooted in the minds of the people of any community. These beliefs have a gradual evolution over the generation and are geographical and socio-cultural in origin. When food belief becomes firmly embedded in the society, they become taboos. These taboos are mostly harmless and many times are good and useful because these are the product of experiences [2].

There is a hierarchical organization of knowledge in the use of medicinal plants in communities. Medicinal use knowledge starts in the home and is passed on to family members. Next in the hierarchy are neighbour, village elders and finally, traditional healers being the most knowledgeable. For primary health care, this hierarchy is actively followed in seeking remedies for ailments. The top five ailments managed at home were gastrointestinal problems, wounds, respiratory tract problems, infections, including sexually transmitted diseases and pain including headaches. Chronic diseases such as hypertension, diabetes, cancer and reproductive ailments also formed a large group of diseases self-managed at home [3].

Verma et al. [4] explored local traditional practices related to minor health problems among rural women of Jaisalmer district. For cold and cough, the traditional treatments included ukaali made of different ingredients like dhanial, clove, tulsi, black pepper, jaiphal, ginger and misri. Whereas, for diarrhea, the traditional treatment comprised of taking curd and isab, and

the mixture of harad and jaiphal. Dysentery is treated with various herbs and ingredients like khejadi, maroda phalli and isab. Skin diseases are treated by taking bath with neem leaves and malaria is treated by tulsi leaves and cloves, and chewing young leaves of neem [4].

Medicinal plants have proved to be effective for the prevention and cure of various disorders. Their use against digestive disorders is very common at the household level. The identification, validation and documentation of the plant material from the state of Punjab revealed that twenty-eight plants were used for digestive disorders and most of them were herbs. They were used for their preventive and curative properties. Some very common plants (parts) were found to be used for the prevention and cure of digestive disorders. Fennel, Mint, Onion and Sacred/Holy basil were found to be very commonly used beside Black plum, Cardamom, Omum and Scared fig. The required parts of other plants used for digestive disorders like Tamarind, Indian gooseberry, White dammer and Indian senna are available in the local market. Garlic, Ginger, Lemon and Pomegranate were also used in indigenous practices for the cure and prevention of digestive disorders [5].

Semwal et al. [6] studied about the medicinal plants used by local Vaidyas in the Ukhimath block of Uttarakhand state. During the study, 60 different plants species were collected and out of those 45 herbs, 8 trees, 5 shrubs and 2 climbers were used for curing a total of 34 diseases such as headache, fever and intestinal problems. Rhizomes/ tubers/ roots (41.66 percent) followed by leaves (31.66 percent), fruits/ seeds (15 percent), twigs/barks (6.66 percent), flowers (3.33 percent) and whole plants (1.66 percent) were used for curing different ailments [6].

Imran (2017) studied the prevalence and patterns of usage of Ayurveda, Unani and home remedies in younger adults of rural north India.

The complementary and alternative medicine (CAM) was preferred by 60% of the respondents and 71% consider it to be more effective over allopathy. The majority (83%) sought the complementary and alternative medicine treatment on family and friend's recommendations. The therapies have more acceptability in the general public because of their perceived high safety, lesser cost and accessibility to the general public. However, the health-care infrastructure for providing acceptable therapy is still lacking [7]. Home remedy use is an often overlooked component of health self-management, with a rich tradition, particularly with those who have experienced limited access to medical care or discrimination by the health care system. While some use is likely helpful or benign, another use has the potential to interfere with the medical management of a disease. Health care providers should be aware of the use of remedies by their patients [8].

Taking the above background into consideration, home remedies have always been accepted as a very effective and cheap way to cure myriads of problems, whether they are skin, hair, diet, or health-related. Even historically, before current medicine, spices and herbs were the main cure for the majority of issues. However, this approach to self-treatment may require some trial and error. Exploring the various methods used for the cure of minor ailments would be useful in further testing and documentation of the kitchen ingredients used as a cure; to provide cheap and easily accessible treatment to a variety of illnesses. The present study thus aims to study the long-established household practices that are followed for the cure of minor health problems in North India (Uttarakhand) and assess their usage trends over three generations.

2. MATERIALS AND METHODS

The study was carried out through the field survey method. The present study was conducted in the Garhwal region of Uttarakhand. Three districts Dehradun, Haridwar and Tehri Garhwal were selected by using purposive sampling methods.

For sample selection, the state was divided into different strata, i.e., districts; then blocks, rural and urban areas and then families. Out of the districts of Garhwal region three districts were selected. From each district two blocks and from each block two rural and two urban areas were

randomly selected for the study. Nearly twenty families were taken from each area. Total 482 families representing different socio-economic statuses were selected for the study. The districts were selected for study on the basis of food insecurity status. The food insecurity status of various districts in Uttarakhand has been determined by Chopra and Passi [9] as developed in the "Food Insecurity Atlas of Rural India". According to the Food Insecurity Status, Dehradun is Moderately Food Secure while Tehri Garhwal is Moderately Food Insecure and Haridwar is Food Insecure [9].

The study comprised of respondents between the age group of 20 to 56 onwards, who voluntarily agreed to participate in the study. Selection of respondents was done by using snowball sampling method also known as network, chain or reputational sampling. This method began with few people and then gradually increases the sample size as new contacts were mentioned by people with whom it was started out with. The respondents were categorized into three age groups range as- 20-34 years, 35-55 years and above 56 years.

A structured interview schedule was prepared for the collection of data. It contained both close-ended and open-ended questions to find out about their previous and current practices followed for the cure of minor health problems. A list of local foods used during various ailments was prepared. Small focused group discussions were organized with participants to gather information about their beliefs, attitudes and opinions towards diet during pregnancy.

The collected data were tabulated and analyzed statistically with the help of approved statistical techniques. The statistical formula used was frequency, percentage and the mean (or average).

3. RESULTS AND DISCUSSION

3.1 Respondents Following Traditional Household Practices during Minor Health Problems

Traditionally many household practices are followed for the cure of minor health problems in different regions across the world. The subjects were asked whether these practices were followed by them or their family. Among the age group 56 years and above, 78.75 percent of rural and 62.50 percent of urban subjects were

following these practices while among 35-55 years of age group, 82.56 percent of rural and 69.32 percent of urban subjects were following these practices. For the age group 20-34 years of age, 60.53 percent of rural and 66.67 percent of urban subjects were following these practices (Fig. 1).

Furthermore, in a study done by Chassagne the traditional knowledge about natural medicine was investigated in Cambodia. Their results revealed that people have still maintained extensive traditional medicine knowledge while undergoing considerable changes. The indigenous hill tribe depended mainly on natural remedies for their daily healthcare [10].

3.2 Respondents Considering Traditional Household Practices as Better than Medicine

Among the age group 56 years, 61.25 percent rural and 53.75 percent urban respondents considered these practices as better than medicine (56 years and above) (Fig. 2). Whereas among 35-55 years of age group, 75.58 percent rural and 57.95 percent urban population considered them as better than medicine, and among the age group 20-34 years, 53.95 percent rural and 61.11 percent urban population considered these practices as better than medicine.

According to a study about the management of diseases with the help of traditional medicine in Uganda, the indigenous knowledge associated with traditional medicine (self-medication using herbal medicines) stills existed, and that it was still important in Uganda because many people use it as the first line of health care when they fall

sick. The knowledge to treat ailments was acquired from parents and grandparents [11]. Routh and Mangulkar stated several reasons for the unpopularity of indigenous medicinal plants as home remedies. Among those, a majority have mentioned about the easy accessibility to Primary Health Centers, migration to cities, the higher level of education, easy availability of synthetic drugs, break down of joint families, and absence of elders in the family. One of the major drawbacks of indigenous medicines is that they are not documented, so it is high time to document these age-old traditional home remedies which consist of a major part of our cultural and societal structure [12].

3.3 List of Local Foods used in Minor Health Problems

According to Nagnur S et al. [13], Indigenous knowledge is the tried and tested knowledge of the local communities. Although the knowledge has been in use for long years, it has never been documented. Their study documented the home remedies for gastrointestinal problems in Haveri district of Karnataka state. The findings revealed the use of spices and condiments from the kitchen or backyard [13].

In the present study, the respondents were asked about the common ailments which were self-treated, and a list of the remedies used along with description of particular recipe prepared was noted. Focused group discussions provided better results especially among the elderly age groups. The treatments included the utilization of locally available food ingredients. The Chart 1 gives a brief description of the various household foods used during minor ailments.

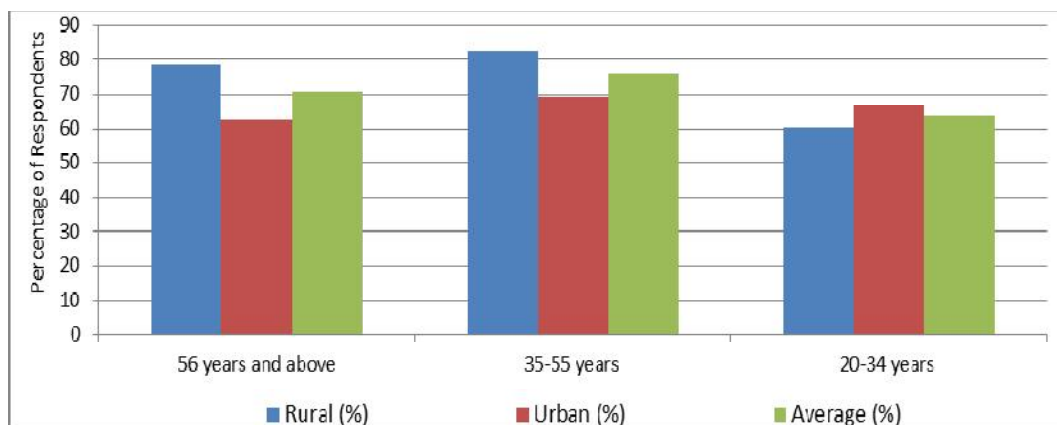


Fig. 1. Trends showing traditional household practices during minor health problems

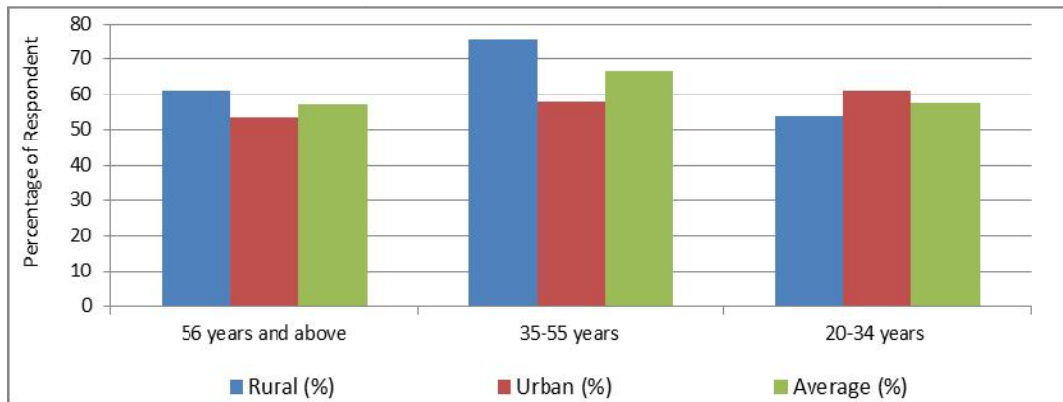


Fig. 2. Respondents considering traditional household practices as better than medicine

Chart 1. List of local foods used in minor health problems

Common Ailments	Home Remedies
Cold/ Cough	<ul style="list-style-type: none"> • Roasted Bengal gram flour with Milk • Roasted Bengal gram dal with milk • Roasted cumin seeds with Milk • Jaiphal (Nutmeg) with Milk • Harad (Black Myroblan) • Sounf (Aniseed) • Ginger • KaliMirch (Black pepper) • Elaichi (Cardamom) • Milk with Haldi (turmeric) • Ginger with salt • Tulsi (Basil)leaves • Gud (Jaggery), Loung (Cloves), Roasted Ajwain (Carom seeds) and Hing (Asafoetida) • Roasted Methi (Fenugreek seeds) • Chutney (Roasted guava+ honey) • Kadha (Roasted almond+ Red chilly + Honey + Ginger extract) • Kadha (Carom seeds + Turmeric + Salt) • Mulethi (Liquorice)
Fever	<ul style="list-style-type: none"> • Roasted Jeera (cumin seeds with Milk) • Milk with Haldi (turmeric) • Besan ka halwa (Roasted Bengal gram flour halwa) • Lemon tea; Kadha (Tulsi + Ginger + Cloves + Carom seeds) • Kadha (Eucalyptus + Guava + Tea leaf + Tulsi + Carom seeds)
Constipation	<ul style="list-style-type: none"> • Raw Garlic • Hing (Asafoetida) • Hing (Asafoetida) in Milk • Ajwain (Carom seeds) • Banana; Harad (Myrobalan) • Harad (Myrobalan) fried in ghee • Munnakka (Currant) dipped in milk • Curd • Onion extract • Honey • Ginger extract

Common Ailments	Home Remedies
	<ul style="list-style-type: none"> • Curd with Black Pepper • Curd with Banana • Bhang (Hemp seeds) and tomato chutney • Hara badam (Green almonds) • Methi (Fenugreek seeds) • Shikanji (lemon juice + water + sugar + salt)
Vomiting	<ul style="list-style-type: none"> • Roasted red chili powder with water • <i>Kala jeera</i> (Black Cumin) • <i>Khus Khus</i> (Poppy Seeds); <i>Shikanji</i> (lemon juice + water + sugar + salt) • Honey • Almonds with ghee; Ginger extract • <i>Ajwain</i> (Carom seeds) • Roasted cumin seeds with lukewarm water • <i>Joula</i> (Jhangora/ Kouni/ Rice) • Tomato with salt • <i>Saunf</i> (Aniseeds) with sugar and salt • Onion and Mint leaves extract
Diarrhea	<ul style="list-style-type: none"> • Roasted cumin seeds with lukewarm water • Onion and Mint leaves extract • Buttermilk • <i>Bhatt</i> (Black soybean) <i>ke dubke</i>+ • <i>Joula</i>+ • <i>Shikanji</i> (lemon juice + water + sugar + salt) • Ginger extract, Tamarind extract, <i>Aam pana</i> (Boiled mango pulp), <i>Bael</i> (Wood apple) • Fruit juice
Jaundice	<ul style="list-style-type: none"> • Boiled food • Radish • Sugarcane • Green leafy vegetables • <i>Joula</i>+ • <i>Bhatt</i> (Black soybean) <i>ke dubke</i>+

+ Recipes prepared during various illnesses (Appendix1)

4. CONCLUSION

The majority of the study participants had practiced household practices for the treatment of common illnesses. Their common reasons for this practice were previous knowledge about the remedy that was followed through the generations. Except for a few regional food sources (e.g. *Kouni*, *Jhangora*, etc.), most of the ingredients used were easily found in the Indian household. Cold/ cough, fever, constipation, vomiting, diarrhea, and jaundice were the main ailments for which self-treatment through home remedies was taken.

As revealed by the data, in both above 56 years and 35-55 years of age group, the percentage of respondents following traditional household

practices during minor health problems and considering them better than medicine was more in rural areas while among 20-34 years of age groups, the percentage was more for the urban population.

The data reveals that still, the practices are popular among the younger generations. This forms a need for further study of long-established household practices to validate their use as medicinal remedies. Scientific validation of such remedies can lead to the low-cost treatment of many common ailments. Health authorities and professionals are highly demanded to educate the public not only on the advantages and disadvantages of home remedies but on their proper use.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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APPENDIX – 1

Recipes prepared during various illnesses:

+BHAT KE DUBKE

A coarse glue of drenched *Bhat dal* (Black soybean) is made in blender and is cooked in iron wok with addition of water. Spices like cumin seeds, asafetida, turmeric and coriander powder are used.

+KADHA

All the ingredients are boiled in 2 small glasses of water till the consistency thickens and water reduces to approximately a cup.

+ JOULA

Jhangora (Indian Barnyard Millet)/ *Kouni*(Foxtail Millet)/ Rice is cooked with curd. Ingredients like Cumin Seeds, Turmeric Powder, Mint leaves are added for more flavor and medicinal effect.

+HALWA

Flour based *halwa* are made by frying flour (such as semolina) in oil or ghee, mixing it into a roux, and then cooking it with sugary syrup.

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