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# Self-Reported Feeding Advice by Physicians for Common Childhood Illnesses

Pages with reference to book, From 298 To 301

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## Abstract

**Background:** A nutritious diet is important for recovery during illnesses. Dietary advice by physicians and consumption of food by the patients are often based upon their hot and cold concepts and beliefs about various foods rather than on scientific basis.

**Objectives:** To look at the food-advising behaviour of physicians during illnesses and to know the maternal concepts about various foods being hot or cold.

**Methods:** A questionnaire was served to the physicians participating in a continuous medical education session held at the Aga Khan University and Hospital, asking them to write the foods they advise or restrict during different illnesses such as fever, jaundice etc. Mothers of sick children suffering from diarrhea and other illnesses were also interviewed to know their concepts about various foods.

**Results:** Six (10%) out of sixty physicians believed in hot and cold concepts of the food. A variety of common foods were either restricted or strongly recommended by 10% to 50% of these physicians without any scientific basis, 23% physicians restricted fatty foods in jaundice, 17% physicians restricted in cough and cold. Although the interviewed mothers believed in hot-cold concepts of food but 55-63% of them were not sure what is meant by hot or cold food. In spite of that 70-80% of these mothers classified chicken, meat, egg, brinjal, masoor and mangoes are hot foods and rice, yogurt, moong, banana and orange as cold foods.

**Conclusion:** Hot-Cold concept of food exists not only in mothers but also in physicians. Proper education regarding food intake is mandatory for both mothers and physicians to ascertain adequate intake of calories during sickness (OPMA 49:298,1999).

## Introduction

Maintenance of good nutrition is an essential step in the management of illnesses in children in addition to appropriate drug therapy. Feeding during illnesses and health should be based on sound and scientific principles of nutrition, providing adequate calories and other macro and micronutrients. It is often modified by parents depending upon their beliefs and concepts of effects of various foods. These beliefs and concepts vary from country to country and community to community<sup>1</sup>. Though hot-cold concepts of food are common in developing countries<sup>2</sup> but are present in western developed countries also. These hot-cold concepts of foods originate from old Greek or Ayurvedic system of medicine<sup>3</sup>. In the developed countries modern scientific system of medicine is the main system of medicine but in search of cure for chronic illnesses, people often seek drugs from alternative systems of medicine and suffer from various side effects and toxicity of the drugs<sup>4,5</sup>. The situation in developing countries especially in Far East and subcontinent is much worse, where the poor common man does not have access to modern expensive system of medicine and seeks treatment from alternative systems. Consequently Greek concepts and classification of food and diseases are prevalent and deeply rooted among general population. As these concepts originate from Greek and Ayurvedic system, these are maintained and propagated by practitioners of these alternative systems. The physicians practicing modern medicine are educated and trained under scientific system of medicine, that does not support hot-cold concepts of classification of food, it is expected that these physicians do not believe in these

concepts and their feeding advice will be rational and based on scientific principles of nutrition. On extensive Medline search, we could not find any study looking at the food concepts and the food-advising behaviour among doctors. Hence we conducted a study to look for the presence of hot-cold food concepts among doctors taking care of sick children and know their practices about feeding advice given to the mothers.

Prior to this study we had collected some data about hot-cold concepts of foods and classification of various food items by mothers of children suffering from diarrhoea and malnutrition. This data will also be presented in this paper.

## **Material and Methods**

At the Aga Khan University Medical center, continuous medical education sessions (CME) are held regularly which are voluntarily attended by physicians practicing in Karachi. Department of Pediatrics holds one 3-0 days CME session each year and usually eighty to hundred physicians attend these sessions. At the CME session held by pediatric department from October 7 to 9, 1997, a questionnaire was given to the attending physicians at the beginning of the session asking about their practice of feeding advice given to mothers of children suffering from common illnesses. The following questions were asked.

1. If they believed in hot-cold concept of the food.
2. If yes then what was the source of these concepts.
3. If they restricted or strongly recommended any food during common childhood illnesses such as fever, cough, vomiting, diarrhoea and typhoid.

In addition, data about these physicians such as their qualification, duration and type of practice i.e., general or specialist was also collected.

We also interviewed 126 mothers of hospitalized children with diarrhoea and malnutrition, inquiring by a structured questionnaire about their concepts regarding food. They were asked if they believe in and understand the meaning of hot and cold foods. These mothers were also shown either food items or their pictures for easy recognition of food groups and were asked if they thought that these foods are hot or cold.

The data so obtained was computerized and analyzed with the help of computer program EPI-Info (Version 6.02, October 1994, WT-IOICDD).

## **Results**

A total of sixty physicians returned the questionnaire. Of these thirty three were MBBS, eighteen held diploma such as DCH or MCPS from College of Physicians and Surgeons Pakistan. Nine physicians did not volunteer this information. Thirty-seven physicians were working as general practitioners irrespective of their qualification and ten were practicing as consultants. All the questions were open-ended. Six (10%) out of sixty physicians believed in hot-cold concepts and Four (7%) physicians didn't volunteer this information. One physician got this concept from Greek system of medicine, another from the patients. The other physicians did not volunteer the source of their beliefs.

The foods were grouped into various categories. It was seen that about one third to half of the physicians did not volunteer information about restriction or recommendation of food. This varied from illnesses to illnesses. Fatty foods were the most commonly restricted food (Table 1).

**Table 1. Various foods restricted by number of physicians in common childhood illnesses (n=60).**

Foods restricted	In fever	In cough	In diarrhoea	In vomiting	In jaundice	In typhoid
	No.	No.	No.	No.	No.	No.
Fatty/ Fried food	8	10	8	8	14	7
Spicy food	6	11	9	4	2	12
Cold foods e.g. ice cream, cold drink etc.	6	-	-	32	-	-
Milk / Dairy products	-	4	6	-	-	3
Sour / irritant	-	-	-	9	-	-
Solid	-	-	9	-	-	5
High protein diet e.g., meat, fish, egg etc.	-	-	-	-	2	-
Chapatti (home made bread), other breads etc.	-	-	-	-	-	2
No specific restriction	27	9	12	12	12	-
Question not answered	16	8	12	19	15	20

Of the sixty physicians, fourteen (23%) restricted fatty food in jaundice, ten (17%) in cough and thirty-one (52%) in hypertension. Regarding strong recommendations, eighteen (30%) physicians recommended hot fluids and soups in cough. twenty-one (35%) advised increased fluids or liquid diet in diarrhea and vomiting (Table 2).

**Table 2. Various foods strongly recommended by number of physicians in common childhood illnesses (n=60).**

Foods recommended	In fever	In cough	In diarrhoea	In vomiting	In jaundice	In typhoid
	No.	No.	No.	No.	No.	No.
Liquid diet / increased fluids	17	-	21	20	-	8
Easily digestible / soft food	5	-	-	8	-	14
Nutritious	6	-	-	-	-	-
High protein diet e.g., meat, fish, egg etc.	6	3	-	-	-	3
Hot fluids /soups etc	-	18	-	-	-	-
Honey/ lemon	-	6	-	-	-	-
Semisolids	-	-	14	5	-	7
Fruit / drink/ juices	-	-	-	5	8	-
Banana	-	-	16	-	-	-
Khitchri (Rice and Lentil)	-	-	11	-	-	-
Cereals	-	-	9	-	-	-
Milk / yogurt / dairy products	-	-	11	-	-	3
High carbohydrate diet, glucose	-	-	-	-	18	-
No specific recommendation	14	13	5	7	19	10
Question not answered	8	18	7	12	15	17

Regarding hot-cold concept of food, only 38 (27%) out of 140 mothers explained that cold foods are those causing cough and cold, 77 mothers (55%) said that they do not know what is meant by cold food, and 19 mothers (14%) did not respond to the question. Nineteen mothers (14%) explained hot

food as producing hot effect in the body, 5 mothers (2%) explained hot foods causing allergies and pustules, whereas 4 mothers said that the hot foods cause fever and abdominal pain Eighty-eight mothers (63%) said that they do not know what is meant by hot food. 17 mothers (12%) did not respond to the question. In spite of not knowing the meaning of hot and cold foods, more than half of these mothers rated various foods as hot or cold upon asking about individual foods. Their perception of various food items as being hot or cold is summarized in (Table 3).

**Table 3. Foods classified as cold or hot by mothers of children.**

Food items	Hot		Cold		Neutral		Don't know	
	No.	%	No.	%	No.	%	No.	%
Roti (Bread)	52	42	6	5	30	24	35	28
Rice	4	3	99	80	5	4	15	12
Chicken	115	92	4	3	2	21	4	3
Mutton	73	58	12	9	17	13	24	19
Beef	92	73	7	6	6	5	21	17
Liver	78	62	4	3	11	9	32	26
Egg	121	98	1	1	1	1	1	1
Milk	26	21	49	39	30	24	21	17
Yogurt	7	6	109	86	2	2	8	6
Sago	9	7	73	59	8	6	34	27
Ice Cream	10	8	104	82	3	2	9	7
Potato	48	40	25	21	22	18	26	21
Spinach	54	43	46	36	7	6	19	15
Cucumber	11	9	84	67	6	5	25	20
Brinjal	92	73	5	4	4	3	25	20
Tomato	31	25	62	50	11	9	21	17
Carrot	11	9	100	80	4	3	10	8
Squash	12	10	68	54	3	2	42	34
Gourd	20	17	49	41	3	2	47	40
Legume	46	37.1	20	16.1	11	9	47	38
Mango	101	71	13	9	11	8	17	12
Papaya	29	23	59	47	10	8	27	22
Grape	29	23	78	62	7	6	11	9
Banana	4	3	92	75	12	10	15	12
Orange	3	2	107	86.3	5	4	9	7
Apple	17	14	53	43	30	24	23	19
Plum	20	16	49	40	5	4	49	40
Guava	17	14	60	48.4	12	10	35	28
Water Melon	16	14	77	62	4	3	27	22

It is seen that chicken, egg, meat and tea are supposed to be “hot” by majority of the mothers. Brinjals among vegetables, ‘m asoor’ among lentils and in an goes among fruits were considered to be “hot” by more than 70% of the mothers. Rice and yogurt were thought to be “cold” by more than 80% of the

mothers. Carrot and radish among the vegetables. 'moong' among the lentils and banana, orange and watermelon among fruits were thought to be "cold" by more than 70% of the mothers.

## Discussion

Though the hot-cold food concept is present in all societies<sup>1-3</sup>, affecting the food intake during health and diseases, this is not supported by the modern scientific system of medicine, it does affect the nutrition of the patients. As foods suspected to be "hot" are restricted in diseases supposed to be caused by "cold" and vice versa. Similarly cold foods are offered in hot diseases and hot foods in cold diseases. This practice leads to acute malnutrition or worsening of the chronic malnutrition. Support and practices of these beliefs by ill-informed physicians is surely responsible for persistence of these concepts in the society. It was surprising to see that 10% physicians believed in hot-cold concepts. This reinforces the patients' beliefs as they accept the physicians' advice blindly.

Even without belief in hot-cold concepts of food, restriction of various foods and strong recommendations in favor of certain foods without scientific evidence is likely to affect the nutritional status of the child. It is evident from our study that physician's advice about feeding during various illnesses is not based on scientific principles. Taking the example of jaundice, in which no dietary restrictions are needed, we found that at least 25% of doctors are still restricting fatty meals. Only one fifth of the doctors had acknowledged "no restriction" of the food in jaundice. The knowledge and attitude of the physicians practicing in the community who do not attend any CME sessions, may even be poorer than the physicians in our study.

Our study also shows that except for a few food items, the common people are not very sure about effect of the other foods. They however, believe in hot-cold concepts but really don't know what is meant by "hot" or "cold", food? In such a situation physicians' beliefs in hot-cold concepts or their non-scientific feeding advises could be responsible for continuation of such concepts among general people.

Irrational drug use is a common problem and has been studied world wide<sup>6</sup>. Efforts are being made to improve prescribing behaviour of the physicians. Dietary behaviours and food concepts of the people of different countries have been studied but we could not find any study in literature looking at the food concepts of physicians. Our study shows that feeding advice given by physicians in our survey was not based on scientific evidence. There is a need for educating the physicians about feeding practices during health and diseases. There is also a need to do such a study on a larger scale in the community.

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