

Dietary Practices and Nutritional Awareness amongst Women Belonging To Different Physiological Status

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Abstract

Dietary practices and nutritional awareness of women belonging to different physiological status was evaluated. The study was conducted on 1600 women selected randomly by using systematic proportionate random sampling technique. Information about dietary practices and nutritional awareness was collected through pre-tested structured questionnaire. Nutritional knowledge was scored through ordinal scale. There was enormous variation in food likes and dislikes among women in general especially during different physiological states. The dietary pattern of women covered by the present study revealed that it was largely dependent on their habitual types and food items locally available. The food habits of women were also found to be related to seasonal variations that control the availability of food materials. 53.8% women possessed poor knowledge regarding sources and functions of nutrients; and nutrient losses during cooking and this percentage was much higher during pregnancy and lactation. However nutritional awareness with regard to nutritional requirement was comparatively better among women in general. The percentage of lactating women with poor knowledge regarding requirements remained lowest – which lead us to believe that mothers possess better idea about nutritional requirements however they were ignorant as to how or where from these nutrients can be provided (Sources) and what is their role (Functions).

Keywords: *Dietary practices, Nutritional awareness, physiological status, Non pregnant Non-lactating (NPNL)*

Introduction

Women of reproductive age constitute 22% of total population and are considered a special risk group for nutritional health problems⁽¹⁾. They play a central role in family health and society; Undertake different family tasks such as child bearing, child care, cooking and shaping family lifestyle as well as deciding about financial aspects of the household. By and large women play an important role in family health and often make decision regarding household diet an issue central to family health⁽²⁾. Dietary intake patterns play a significant role in human health^(1, 2). Improper and inadequate

dietary intake pattern especially in women of reproductive age have resulted in the deficiency of essential nutrients especially during pregnancy and lactation⁽³⁾. A women's knowledge of nutrition and her attitude about eating will affect her food practices significantly. She may eat impulsively, using food to try to satisfy other needs. If she is sensitive about her appearance, she may ignore hunger in an effort to lose or control weight. Alternatively she may pay close attention to her eating practices so that she can look and feel her best. Some overweight and underweight women may not see themselves as others do and therefore lack motivation to change their eating habits. Providing accurate nutrition information may help women avoid fad diets and improve poor eating patterns such as skipping meals⁽⁴⁾. Attempts to improve nutritional conditions cannot be made intelligently unless the factors other than the knowledge of nutrition which determines food choices are known and considered. Eating behaviors develop from cultural, societal and psychological patterns. These patterns reflecting food habits that have been transmitted from preceding generations are the heritage of any ethnic group. Nutritional practices and patterns are developed by people's tendency to settle into fixed habits. Eventually they characterize regional and national eating practices either poor or good. Food habits good or bad however can be an extremely powerful force in determining what a person eats. The best way to be well nourished through-out life is to develop food habits and attitudes that are conducive to the selection of a healthy diet⁽⁴⁾. Food habits of a community furnish presumptive evidence of the nutritional status and their assessment is important to identify those individuals who are vulnerable to nutritional problems⁽⁵⁾. Malnutrition plays a key role in maternal mortality. Next to young children, pregnant and lactating women are nutritionally the most vulnerable group especially in developing countries of the world (WHO – 1965). Majority of them are in constant state of nutritional stress beginning in the childhood than adolescence, and continuing through the child bearing period which

commences before growth has ceased and consists of a continuous cycle of pregnancy and lactation, all too resulting in premature death. This study therefore assessed the dietary habits and nutritional knowledge of Kashmiri women belonging to different physiological status.

Methodology

A cross sectional comparative study was carried out for collection, systematization and statistical analysis of data on dietary practices and nutritional awareness amongst 1600 women belonging to both rural and urban areas of Kashmir province, Jammu and Kashmir state. Information regarding dietary practices and Nutritional awareness from women belonging to different physiological status (pre-pregnant, pregnant, lactating, non-pregnant non-lactating). A pre-tested and predesigned questionnaire was used for the said purpose. The qualitative diet survey included respondent's information about the number of meals consumed per day, nature of diet, food likes and dislikes, food beliefs and taboos, medium of cooking food, inclusion of special food in daily diet during pregnancy/lactation. Frequency of consumption of different foods was also found. To check nutritional awareness an open ended questionnaire which contained questions on nutrient sources, nutrient functions, nutritional requirements and cooking practices was applied.

A scoring technique using ordinal scale duly approved by a sociologist was used to score nutritional knowledge.

Results and discussion

Dietary habits

i. Nature of diet and food frequency

Consumption of variety of foods in adequate quantity is essential for balanced dietary pattern in general and modification during different physiological status makes it suitable to these conditions. To get an idea of dietary habits and pattern in our women the present study reveals that only a negligible percentage of women were vegetarian and rest of them were nonvegetarian. Rice (Cereal) was universally consumed by women irrespective of their physiological status. 98.3% women eat some green leafy vegetables on daily basis. Roots and tubers were mainly consumed by (81.3%) women on weekly basis and percentage consumption was comparatively better during pregnancy and non-pregnant non-lactating state. Frequency of eating pulses was mostly (92.5%) occasional among women. Percentage consumption of pulses once or twice was negligible, however

among pregnant (11.7%) and lactating (7.5%) women it was better. Almost half (46.2%) of studied women included meat/poultry occasionally in their diet. Frequency of meat/poultry consumption (4-5 times/week) was more among pregnant (28.5%) followed by pre-pregnant group (23.1%). This frequency was almost same among lactating and non-pregnant non-lactating women. More than half (56.4%) of studied women consumed milk/curd occasionally, however milk/curd was mostly consumed by lactating (37.4%) and pregnant women (31.0%) on daily basis. There was again not much difference in the percentage of women consuming milk on daily basis belonging to other two physiological groups (pre-pregnant, NPNL) non pregnant non lactating.

NFHS – 2 (1999) data J & K showed up to 51% of women consuming green leafy vegetables on daily basis and only 31% consuming other vegetables. Whereas up to 88.0% mothers consuming vegetables on weekly basis. The most of finding are consistent with present study⁽⁶⁾.

The universal consumption of cereals and green leafy vegetables on daily basis by women in general, with addition of roots and tubers on weekly basis, pulses on fortnightly or monthly basis and animal foods on weekly or fortnightly basis makes our women's food quantitatively low especially in calories, proteins and to some extent in vitamins. Even minerals (calcium, iron) or some vitamins (vit C, vit D) could be worse affected.

ii. Meal pattern and foods consumed for various meals

More than half (62.4%) of women followed four meal pattern, however around one third women (33.6%) ate five times a day. The percentage of women with four meal pattern was highest among pregnant group (80.3%). Whereas five meal pattern was mostly followed by women in lactating state (40.0%) and non-pregnant non-lactating state (44.8%). While four meal pattern of breakfast, lunch, afternoon tea and dinner was predominately (universally) followed; no additional quantity is seen in pregnancy and lactation. Salt tea (Namkeen tea/ Noon chai) Roti (Kashmiri Tandoori Roti) is common breakfast item. Only one fifth of mothers add milk during pregnancy and about 20% add egg in pregnancy and lactation. Rice and green leafy vegetables being a common lunch item with curds/milk as additional item in lunch. Meat/Poultry are not daily items and so are not the pulses, eggs, milk and fruits. The combination of food stuffs and meal pattern does show that a definite percentage of mothers are likely to suffer some quantitative deficiency from calorie and protein intake. Even no attempt is being made by our mothers for compensating foods rich in

minerals especially iron or calcium during the pregnancy/lactation. Similar finding were observed in J & K NFHS – 2 data (1999) where milk/curd was a common part of diet for majority of women (52%), however occasionally, and only 15% consumed fruits daily. Similarly 44% eat meat/Fish/Poultry occasionally one third weekly ⁽⁶⁾.

iii. Likes and Dislikes:-

There is a vast variation in the likes and dislikes of various food items in general and particularly in different physiological status. Amongst cereals wheat was hardly liked by (0.9%) ladies and rice was more liked during lactation and pre-pregnancy compared to pregnant and non-pregnant non-lactating status. Although legumes and pulses were liked by only one fourth (26.7%) of women as already discussed, it was interesting to note that the pulses were more frequently liked in pre-pregnant and pregnant status than the other two physiological status. Similarly amongst milk and milk products curds was liked by 50.0% women that too during pregnant and lactating states. The most liked animal food was poultry followed by meat and during pregnancy the liking for both was low whereas it was better during non-pregnant non-lactating state followed by pre-pregnant state.

One third of women liked green leafy vegetables; however, during pregnancy spinach and sag was more frequently liked and variations in the liking of green leafy vegetables was not much between different physiological status.

Only one fourth of women liked fruits especially apples and citrus fruits than the dry fruits. Liking for fruits was much better during pregnant and lactating stage than the other two physiological states.

The common dislikes about the foods were on some of the cereals, green leafy vegetables, animal foods, sweets and other miscellaneous foods. During pregnancy 11.3% women had dislike for rice and 12.0% for meat whereas about half of pregnant women (48.0%) didn't liked knolkhol (green leafy vegetables) and about more than half mothers (57.2%) didn't liked sweets during pregnancy.

It is obvious from the above pattern that there is enormous variation in food likes and dislikes among women in general especially during various physiological status which may be resultant of cultural factors, social influences or relative availability of food items that has determined the overall consumption pattern in women.

As can be seen our routine dietary pattern among women is of rice and green leafy vegetables as a main staple food for lunch and dinners and namkeen tea with wheat roti (Kashmiri Roti) as common breakfast item and evening snack. Milk/curd is an additional item. However roots/tubers, pulses, fruits are occasional foods and so are animal foods especially meat/poultry/eggs. There is limited change in food pattern during pregnancy and lactation and this is likely to be because of likes/dislikes or cultural influences rather than based on the knowledge of definite increased requirements and demands.

iv. Seasonal Variation

Consumption pattern of vegetables during different seasons also varied. During summers mostly seasonal vegetables like sag (collard greens) and knolkhol green were consumed (50.0%) by women. Rabbani (1981) reported that Kashmiri take plenty of vegetables but their favourite dish is the Hak (sag) or krama sag⁽⁷⁾. Lisa (Rumex), Noonar (Portulaca) and Hand (Garden cress) which grows as wild grasses were also consumed during summer season. Only half of studied women included all seasonal vegetables viz cauliflower, cabbage, ladies finger, spinach, sag, knolkhol greens, cucumber etc in their diet. A diet survey carried out by state nutrition organization (1978) also depicted that the vegetables such as cabbage, spinach, sag, cucumber, turnip, radish are extensively used by Kashmiris⁽⁸⁾. However during winter season legumes and pulses (92.3%), dried vegetables (58.6%), roots and tubers (73.7%) and Quince apples/Lotus stems (21.4%) were mostly consumed. This difference in the consumption pattern of vegetables is attributed to seasonal availability and Kashmir valley being a hilly area mostly remains covered by snow during winters and most often remains cut off from its winter capital Jammu, so people have to depend on semi perishable, non perishable and preserved foods i.e. legumes and pulses roots and tubers and dried vegetables. Studies carried out by Bomzai P.K. (1962); Lawrence Welter (1967) and state nutrition organization also revealed that dried vegetables, fruits of all sorts especially tomatoes, turnips; pumpkins were dried and reserved for the lean months of winter. They also reported that dried vegetables as well as various kinds of pulses were taken by Kashmiris during the winter. But pulses were not considered of much importance by them^(8, 9, 10).

v. Special food consumption (pregnancy/lactation)

Collectively just over two third of (69.3%) studied women were consuming special foods during

Pregnancy/lactation. However these special foods were preferably consumed in lactation than in pregnancy. The commonly consumed special foods during lactation were garden cress (30.4%), Meat and organ meat (18.2%), Milk and milk products (15.1%), Fish (10.1%) and fruit juices (5.9%). The beliefs for such consumption were increase in haemoglobin content by use of organ meat/garden cress, increase in milk production with satiety to the child through mother's milk by consuming fish. Pregnant women were found to consume mostly fruit juices (29.1%), milk and milk products (17.3%) and dry fruits (13.8%) as special foods. Pregnant women were even found to consume Gondkatira (Tragacanth gum) (12.8%) soaked in milk or water, Quince seeds (4.3%) soaked in water and sharbats (home made extracts) of raisins and apricots (9.2%), as these foods were believed to be of help in delivering a child normally without complications. MirzaRajkumari (1985) also found out that the special foods consumed during pregnancy by Kashmiri women (Budgam Tehsil) include quince seed in water, fruit juice and butter⁽¹¹⁾. Although various other studies have also shown consumption of special foods in pregnancy and lactation, yet lot of contradiction on use of special foods during pregnancy and lactation and their impact or reason for consuming such foods can be seen (Leela M Sai/BusiB.R 1995). Surekha R (1984); Pendse v/ Giri.I (1989)^(12, 13).

Percentage of women consuming special foods was highest among the age group 21 – 30 years, followed by mothers in the age group > 30 years and lowest among mothers ≤ 20 years of age. Same trend was up held by women during both physiological conditions (pregnancy/lactation).

Types of family, socioeconomic status showed better intake of special foods among women in joint family and highest socio-economic classes (with similar observation in pregnancy as well as lactation). This can be attributed to factors like cultural practices and respect (social status) given to women in different physiological status or ability of families to purchase and spend on special foods.

Special food consumption of women had no consistency in different occupations and consumption varied in pregnancy, lactation or overall group. Thus making it clear that occupation does not have any impact on consumption of special foods during pregnancy/lactation.

Special foods were mostly consumed by literate women in general (56.7%). During pregnancy around three fourth literate women (73.0%) consumed special foods; whereas, during lactation it was seen that there was not much difference in the percentage of literate and illiterate women

consuming special foods (47.8% and 52.2% respectively). It point towards the fact that although during pregnancy literacy may be playing a vital role in consumption of special foods but during lactation it is not having any impact. It may even be related to cravings (PICA) of literate pregnant women that they include special foods in their diet.

vi. Food Taboos

The most common food taboos generally followed were avoiding combination of fish and curds (67.9%), fish and milk (64.4%), dal and curds (27.4) or discarding cooking water of spinach (22.0%). Among pregnant women common food taboos were avoiding fish and curds or milk together. Specific food taboos during postpartum period (40 days after delivery) was avoidance of consumption of fresh fruits and vegetables and excessive intake of fish.

Likely nutritional impact of such restrictions or avoidance can lead to low calcium, vitamin and to some extent protein intake which otherwise is required in higher quantity during these physiological conditions.

Avoidance of consumption of fish and curds or milk was considered to be cause of leukoderma to women as well as to the growing foetus. Consumption of curds and dal was associated with indigestion and flatulence. Intake of cooking water of spinach was thought to be the cause of frequent urine infections and formation of kidney stones. Fresh fruit and vegetables during postpartum was related to cold and coughs to the infant and excessive intake of fish during same period was considered to be helpful in the process of lactation and provide satiety to the infant through milk. Avoidance of these foods is essentially a cultural practice and hence consumption is considered a taboo. A study carried out by Mirza Raj Kumari (1985) on food habits of families in Budgam Tehsil (Kashmir) also showed that majority of families believed on different food taboos especially on consumption of fish and milk, fish and curds, curds and dal or egg, and milk in combination⁽¹¹⁾.

The dietary pattern of the women covered by the present study revealed that it was largely dependent on their habitual types and food items locally available. The food habits of Kashmiri women are also related to seasonal variations that control the availability of food materials.

Nutritional Knowledge

i. Overall nutritional knowledge

Around half of studied women in general had poor overall nutritional knowledge and hardly one fifth (21.4%) of them possessed good overall knowledge. Percentage of women with poor overall knowledge continued throughout pregnancy and lactation. Thus showing that women don't try to improve their nutritional knowledge in general even in these important physiological status when it is absolutely necessary.

ii. Specific nutritional knowledge

The present study showed that just over half of women (53.8%) had poor knowledge regarding sources and functions of nutrients as well as nutrient losses during cooking and this percentage was much higher during pregnancy and lactation. However nutritional knowledge with regard to nutritional requirements was comparatively better among women in general (32.7%) with only 29.1% having poor knowledge. Surprisingly the percentage of pregnant and lactating women with poor knowledge regarding nutritional requirements remained lowest. This leads us to believe that mothers do possess better idea about nutritional requirements however they are ignorant as to how or where from these nutrients can be provided (sources) and what is their role (functions). Unfortunately our mothers also don't have the concept of nutritional losses during cooking. This makes a strong case for nutritional counselling and nutritional education in general with focus on certain special areas of nutritional knowledge in women. A study carried out by Kaul Anjana (1989) on nutritional knowledge of teachers and students of two colleges in Srinagar showed that respondents obtained highest mean scores (73%) for "nutritional needs" and the lowest mean scores (53%) for "functions of nutrients". The significant difference in the study mentioned indicated that respondents had maximum knowledge about nutritional needs during different periods like infancy, pregnancy, adolescence and old age and they had minimum knowledge about functions of nutrients⁽¹⁴⁾. Bisati Sabia (1999) reported that houseboat women in Srinagar city do not have any knowledge regarding the loss of nutrients while cooking foods⁽¹⁵⁾.

Overall women possessing good or fair nutritional knowledge belonged to high-socio-economic class. She lowers the socio-economic class the lowest was the percentage of women with good or fair nutritional knowledge. Suggesting that socioeconomic status does have a bearing on nutritional knowledge of women which may be

related to exposure or access of women of this class to media, literature, social interactions in restaurants, parties etc. highest percentage of women in upper socioeconomic class possessing good nutritional knowledge was among pregnant women followed by pre-pregnant, non-pregnant, non-lactating and lastly lactating women. Theoretically better the occupation better the acquisition of knowledge and understanding which was depicted by the finding of present study also i.e. professional women in general as well as in different physiological status were cent-percent nutritionally aware. This may be related to social interaction and educational qualification of their group.

Literate women of all physiological groups had edge over illiterate women as far as their nutritional knowledge was concerned. There by clearly showing that literacy status has direct relationship with acquiring nutritional knowledge. Similar findings have been reported by Jelsoet al (1965) showing a direct relationship between income and nutritional practices and occupation⁽¹⁶⁾. Sun SL (1976) found a direct relationship existing between nutritional knowledge and occupation. Higher occupational groups had better knowledge of nutrition than the lower occupation groups⁽¹⁷⁾.

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