

## FACTORS AFFECTING FOOD CHOICES DURING LACTATION IN KUMAON REGION OF UTTARAKHAND

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### **ABSTRACT**

*Breast milk is the best for an infant is a universally accepted fact. Breastfeeding feeding babies among the population is affected by many cultural religious, social and family influences. False beliefs about food restrict mothers to consume /restrict certain foods on the other hand, lactating mothers require extra calories, protein, vitamin, and minerals which increase the quality of milk and maintain the store of mother's. The study included 197 lactating mothers from Kumaon, who had a baby 0-6 months of age. It was found that 91.37 per cent mothers were excluding more than two food items from the diet out of which 25.89 per cent respondents were vegetarian, 56.85 per cent respondents were non-vegetarian and 17.26 per cent respondents were eggitarian. Out of total mothers from non vegetarian group 81.25 per cent were excluding non-veg food like meat, chicken, fish etc and 87 per cent excluded eggs and those who were eggitarian 91.18 per cent were excluding eggs, suggesting during lactation period the changed food habits of mother affect mothers health as usually quality of milk is least affected but affects mothers status. Other food items being avoided were : whole pulses (71.66 per cent), fruits (95.55 per cent), curd/buttermilk (95.55 per cent), rice (96.11 per cent), millets (92.22 per cent), nuts (71.11 per cent), green leafy vegetables (87.22 per cent), peas (90 per cent), brinjal (88.33 per cent), potato (74.44 per cent), Colocasia (89.44 per cent), cauliflower and cabbage (93.33 per cent), cucumber and raw tomato (89.44 per cent) and cold food (95 per cent),this clearly showed that health of mother, in turn, her baby is at risk due to these cultural beliefs.*

**KEYWORDS:** *Mother Health, Infant Feeding, Breast Milk, Cultural Beliefs*

### **INTRODUCTION**

Breastfeeding is the universally the best way to provide food and ideal nutrients to the infants. The infant should be breastfed exclusively till six months it has many health benefits to mother as well as the child (Kliegman 2011). Breast milk is basic and essential food for infants in their starting months of life. Every community has their own culture regarding the beliefs during the lactation period; they provide some rules and regulations to the nursing mother like advice about avoidance of cold food, spicy food because they are not beneficial for the health of mothers and infants. These rules will affect the nutrient intake of mothers, which is very essential during this stage (Lawrence and Lawrence 2011). There are different categories of foods which are being avoided are caffeine, Spicy foods, milk product, wheat, fatty foods, cold foods, beans, nuts, seafood, raw food, fruits, specific vegetables like green vegetables, pumpkin etc. (Jeong et al, 2017). It was seen that the most of the mothers avoided certain foods unnecessarily, all type of food should be consumed during this stage is safe until and unless the infant reacts negatively to that particular food item

(Jeong et al, 2017). The diet is restricted to some food items can reduce the quality of milk and life of the mother and also can cause discomfort in continuing exclusive breast-feeding (Gabriel et al 1986). The notions about the food exclusion during lactation may result insufficient induction of immune tolerance towards solid foods in children (Verhasselt, 2010). Catherine (2017) found that there are numerous different types of nutritious and locally available food items either restricted or denied especially during pregnancy and lactation thus making women and infants vulnerable. There is need of nutrition education to the women regarding correct feeding practices during pregnancy and lactation which will in turn, improve the maternal and child health in view of this the study was undertaken to see prevailing cultural beliefs, feeding practices, knowledge and gaps where intervention is required.

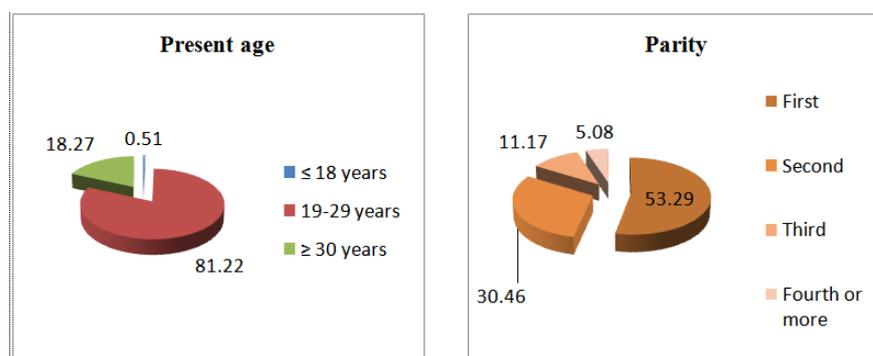
## MATERIALS AND METHODS

The study was conducted in Kumaon region of Uttarakhand. Three districts were selected which were Nainital, Bageshwar and Udham Singh Nagar from these district two blocks were selected for the survey. Both rural and urban areas were included. Total 197 nursing mother who delivered the baby normally with infant's age 0-6 months were the respondents of the survey. The respondents were selected with the help of ASHA (Accredited Social Health Activist) worker. The pretested questionnaire was used to assessing maternal age, the number of children, maternal educational attainment, socioeconomic status, food habits and the beliefs regarding food exclusion they were following during this period. Study area and a number of subjects. To assess the socioeconomic status of respondents the scale by was O.P. Aggarwal (2005) was used. The data was analyzed and represented in the results section.

## RESULTS AND DISCUSSIONS

Figure 1 showed that the age of maximum of respondents were 19-29 years and remaining 18.27 % were in the age group of more than and equal to 30 years and minimum were more than and equal to 18 years.

Figure 2 showed that the around 50% respondents having first child and 30.46% respondents having two children and remaining 11.17 % and 5.08 percent respondents having third and four or more children respectively.



**Figure: 1 Age of Respondents**

**Figure: 2 Number of Children**

Figure 3 showed that approximately 13 percent had no education, 20 per cent were below the eighth pass or below and approximately 24 percent were graduates and rest in between.

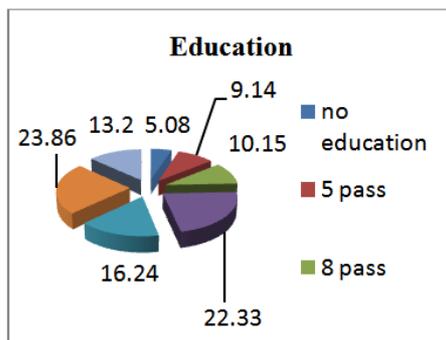


Figure 3: Education of Mother

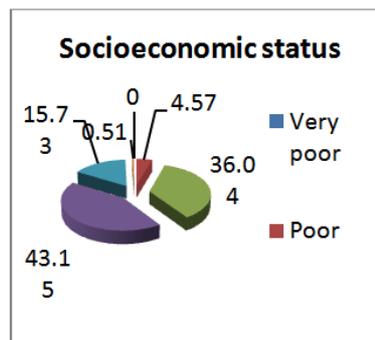


Figure 4: Socio Economic Status

Figure 4 showed that approx 5percent respondents poor and 20percent were rated among high class and majority 80percent as middle class.

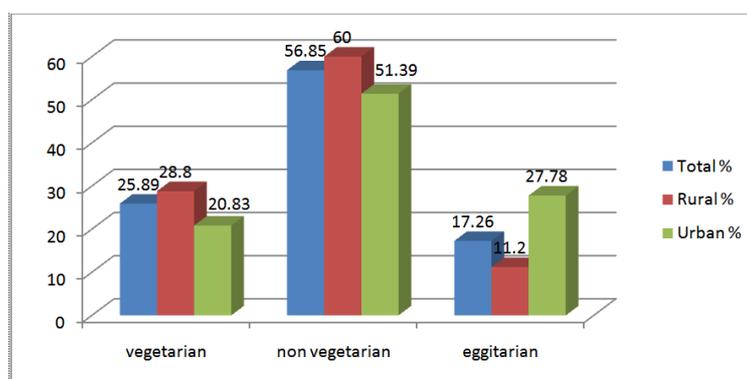


Figure 5: Distribution of Respondents According to the Food Habits

Figure 5 revealed that the approx. 75percent respondents were non-vegetarian/eggitarian, only 25.89 percent were vegetarian; less number were eggitarian (17.26percent). It was found that in rural and urban area non-vegetarians was more than that of vegetarian and eggitarian.

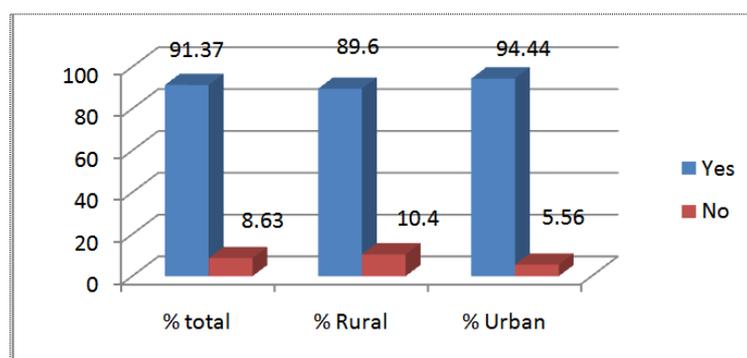
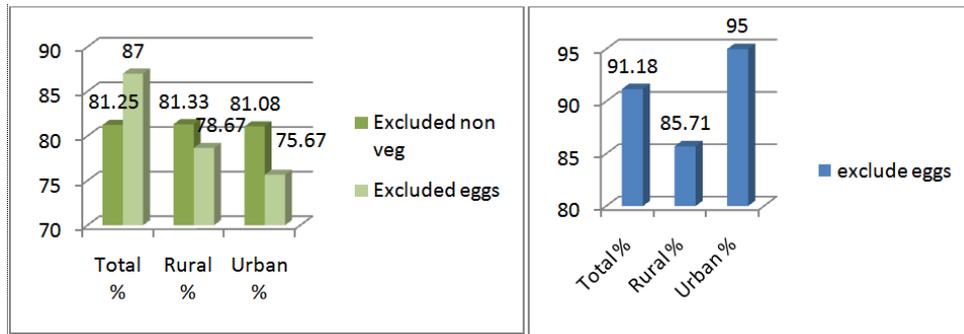


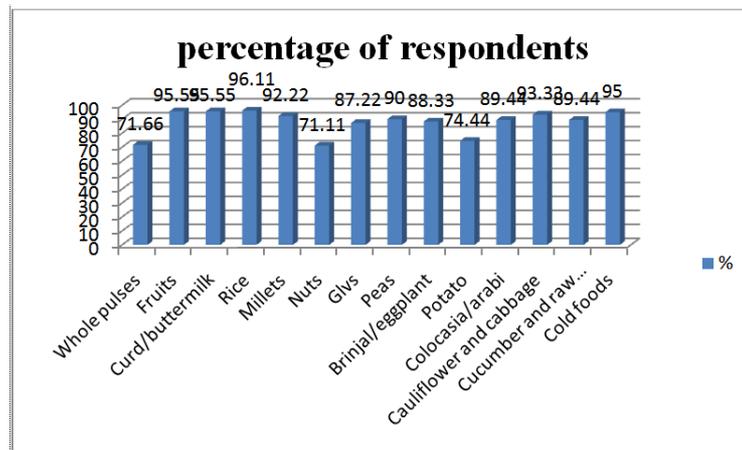
Figure 6: Percent of Respondents Excluding Food Items during Lactation

Figure 6 revealed that 91.37 percentage of respondents who were excluding food items during the lactation period. This was higher than the mothers excluding food items during pregnancy. The percent of respondents were found more in the rural area.



**Figure 7: Percentage of Non-Vegetarian Respondents who excluded Non -Vegetarian and Eggs during Lactation**

Figure 7 showed that the 81.25 percent non-vegetarian respondents avoid non-vegetarian food during lactation and 87 percent respondents avoid eggs during this period. The trend of avoidance of non-vegetarian food (meat, fish, chicken etc) and eggs was similar in rural and urban area respectively About 91 percent which quite a considerable number of respondents Were avoiding eggs these non-vegetarian foods being the good source of protein and other essential nutrients are crucial at this time of womanhood. The trend was seen that 95 percent of urban respondents were excluding whereas only 85.71 percent respondents were avoiding eggs during lactating period.



**Figure 8: Different Food Items Being Excluded by Lactating Mothers**

Figure 8 shows the different food items which were being avoided by the lactating mothers were whole pulses, fruits, curd/buttermilk, rice, millets, nuts, green leafy vegetables, peas, brinjal, cauliflower, cabbage, cucumber and raw tomato and cold foods. In other similar studies on Asian women Kim, 2003, reported that Asian women restricts the cold food during lactation because the cause some problem in mother and infant and also need to maintain a warm temperature within the body and the environment during the postpartum period In Korea mothers were advised to restrict the food items like kimchi because it can cause colic, gas, diaper rashes to the breastfed infants (Jeong et al., 2017). In our study, the reason outlined as an outcome of the study are summarised below in tabular form.

**Table 1: Reason for Avoiding Food Items during Lactation**

Food Items Avoided	Reasons Told by Respondents
Non –veg	Till the baby did not start the weaning food and till the baby depends on breast feed, the mother was not allowed to eat non-veg food item.
Eggs	Eggs can cause loose motion to the baby along with or without vomiting. in local language this situation called “juk /juka / jug”
Whole pulses	It can cause gas and bloating to the baby and hard to digest by the mother
Fruits (grapes, oranges, banana, apples, pomegranate, papaya, any other)	It can cause cold and cough because fruit was considered to be cold and can cause loose motion
Curd/buttermilk	It also cause cold and cough
Rice	Same reason as fruit and curd/buttermilk
Millets	It can cause loose motion to the baby
Nuts	It can cause vomiting and loose motion
Green leafy vegetables	It can cause loose motion to the baby
Peas	Same reason as nuts
Brinjal/eggplant	Not a specific reason
Potato	Cause loose motion to baby and form gas to mother
Colocasia /arabi	Form gas to mother
Cauliflower and cabbage	It also causes vomiting and loose motion to the baby and forms a gas to mother
Cucumber and raw tomato	Same as cauliflower and cabbage
Cold foods- Rice, Jhangora (Barnyard millet), Maize, rajmah, lobia, Bengal gram dal, Sabudana (Sago), Raddish, Potato, Arabi (colocassia), Pumpkin, Cauliflower, Spinach, Cucumber, Guava, Orange, Lemon, Banana, Citrus fruit, Buttermilk, curd.	Not good for mother and infant.

It has been seen that the food habits of respondent were changed during lactation those who were non-vegetarian and eggitarian will be converted to vegetarian till the breastfeed the infant and start consuming the non-vegetarian food after weaning the infant. However, these being a rich source of many nutrients, must be added in the diet during the lactation to prevent malnutrition during lactation. Proteins are fundamental components of the body and include many substances, such as enzymes, hormones, and antibodies that are necessary for the proper functioning of an organism. They are essential in the diet for the growth and repair of tissue and can be obtained from foods such as meat, fish, eggs, milk, and legumes, during lactation the dietary recommendation of protein has been increased from 55 gm/day to 77.9 gm/day (NIN 2010) but in present study it was found that those who were non-vegetarian and eggitarian were excluding the non-vegetarian food and eggs during lactation the percentage of respondents were highly concerning and those who were vegetarian also excluding whole pulses in the diet during the pregnancy.

According to NIN 2010 recommendation for energy, vitamins and minerals were also increases during the lactation which going to full fill by consumption of different fruits, nuts, vegetables etc. It is recommended that all type of food should be consumed by the lactating mother to replenish the body store and full fill the demand of nutrition of the infant (WHO 2001).

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