

FOOD RELATED MISCONCEPTIONS AMONG BREASTFEEDING MOTHERS OF NEONATES IN NORTHWEST GENERAL HOSPITAL PESHAWAR

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ABSTRACT

Objective: To explore the various food restrictions, recommendations and associated reasons among breastfeeding mothers of the newborn.

Methods: A cross-sectional survey of breastfeeding mothers were carried out at Northwest General Hospital & Research Centre from January to September 2017. Descriptive statistics were calculated using IBM SPSS 23.

Results: Two hundred and forty mothers responded to the survey. Dietary restrictions mainly involved potatoes, yoghurts, spices and carbonated drinks. The most common myths for dietary restrictions were associated with them being a cause of physiological jaundice, abdominal pain and chest infection. The food items most of the mothers recommended during breastfeeding were Soup, Milk, Desi Ghee and Nuts. Some home-made products such as Suji Halwa and Achwani were also recommended in Pashtun and local Peshawar cultures.

Conclusion: Breastfeeding mothers of neonates in Khyber Pakhtunkhwa unnecessarily restrict their diets. The restricted food items have no scientific basis. Instead, these are important for the composition of breast milk. Community/nursing mothers should be educated regarding their diet and related myths.

Keywords: Breastfeeding Mothers, Food-related Misconceptions, Neonates, Physiologic Jaundice, Abdominal Pain

INTRODUCTION

Exclusive breastfeeding for six months suffices most of the nutritional requirements for the development of healthy infants as per recommendations of World Health Organization (WHO) and American Academy of Pediatrics^{1,2}. After that, babies should gradually receive nutritionally adequate and safe complementary foods (weaning) with breast milk for two years of age or beyond³. Breast milk is an important source of nutrition and immunity for the growing infant⁴. Breastfeeding reduces infant mortality due to sepsis, pneumonia, and diarrhoea⁵. During pregnancy and

after delivery, the maternal body prepares itself for breastfeeding. It develops the breast and stores nutrients from mother's diet for breast milk production⁴. As a result, mothers experience an increase in appetite and change in dietary preferences.

In Pakistan, the birth weight of a newborn is below the average weight than in other countries. The main reason for this is socioeconomic factors, cultural and educational background of the parents³. Discarding colostrum and delayed initiation of breastfeeding is common in many communities. Various misconceptions regarding diet among breastfeeding mothers are also responsible^{6,7,8}. Mothers' diet directly affects the quantity and quality of breast milk, which in turn affects the baby⁹. Many mothers either chose not to breastfeed or avoid certain diet. Anecdotal evidence suggests that mothers avoid strongly flavoured foods

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as it may change the taste of their milk. However, fetuses swallow amniotic fluid during pregnancy, so they are accustomed to a variety of taste and may enjoy breast milk flavours. The food restriction among breastfeeding mothers lacks an evidence base and is culturally driven, e.g. Asian mothers avoid cold foods, Hispanic mothers avoid pork, chillies and tomatoes, Korean mothers avoid spicy food while many others avoid cow's milk as these are considered harmful for the breastfeeding infants^{7,10,11}. Although there are some nutritional guidelines for breastfeeding mothers, many cultural traditions had no scientific basis and based on popular myths in the community⁴.

Breastfeeding practices can be enhanced through proper education and emotional support for the breastfeeding mothers¹². There is also a need for culturally relevant guidelines on a diet for breastfeeding mothers. We could not find much literature on maternal food restrictions from Pakistan and in particular Khyber Pakhtunkhwa, as their cultural traditions may vary. This study explores food restrictions and their reasons by breastfeeding mothers of neonates. We also looked at the food allowed/recommended in our culture. The findings will be useful to policymakers and educators in the development of interventions for medical/allied healthcare.

MATERIAL AND METHODS

A cross-sectional survey of breastfeeding mothers was carried out at Northwest General Hospital & Research Centre (NWGH) over the period of nine months from January to September 2017. NWGH was selected because it receives a range of patients from many different regions of Khyber Pakhtunkhwa (KP) province, Pakistan and even Afghanistan. This region mainly belongs to Pathans, who speak Pashto language and

adhere to a traditional set of ethics guiding individual and communal conduct.

Ethical and administrative approval was granted by the Northwest General Hospital & Research Centre Ethics Committee. A questionnaire was adapted from the literature review and a previous study on mothers from Korea⁴. The questionnaire comprised of both closed and open-ended questions. The questions asked about maternal age, area, number of children, maternal education, type of restricted and recommended foods by the mothers, reasons for restriction and source of such advice. It was validated by one paediatrician, gynaecologist and nutritionist each, who identified restricted food items and categorised them into various categories. It was then piloted on eight patients, who found the questionnaire clear.

All the breastfeeding (exclusive or partial) mothers of neonates coming to Pediatrics and Obstetrics Departments of NWGH were informed about the study and invited to participate. One house officer was trained to interview the participants and complete the questionnaires. The quantitative data from the questionnaires were entered in IBM SPSS Statistics 23. Descriptive analysis was carried out to calculate frequency and percentage. The qualitative data were analysed using content analysis¹³.

RESULTS

Two hundred and forty breastfeeding mothers consented to participate in this study. Most of the mothers were under 30 years of age. Their educational level was predominantly middle and high school. The respondents came from many different regions of Khyber Pakhtunkhwa and Afghanistan. Most of the women received advice from their family members with no background in healthcare. (Table 1)

Table-1: Demographics

Characteristics		n = 240	Percentage
Age	20 – 29	142	59%
	30 - 39	75	31%
	>40	23	10%
Area	Peshawar	105	44%
	Mardan	28	12%
	Nowshera	34	14%
	Charsadda	23	9%
	Other areas of KPK	32	13%
	Afghanistan	18	8%

Number of children	1	80	33%
	2	65	27%
	3	30	13%
	4	37	15%
	5	25	11%
	>5	3	1%
Mothers' education	Primary	29	12%
	Middle	87	36%
	High School	64	27%
	Intermediate	21	9%
	Graduate	39	16%
Source of advice	Mother	121	50%
	Grandmother	38	16%
	Other Breastfeeding Mothers	64	27%
	Healthcare Professional	17	7%

Table-2: Self-restricted food items by breastfeeding mothers

Food Item		n = 238	Percentage
Animal sources	Meat	17	7%
	Chicken	9	4%
	Fish	7	3%
Yoghurts		154	65%
Starchy foods	Potatoes	192	81%
	Rice	73	31%
Vegetables	Cabbage	138	58%
	Spinach	54	23%
	Onion	31	13%
Caffeine-rich	Tea	21	9%
	Coffee	5	2%
	Carbonated Drinks	143	60%
Spicy Food		174	73%

Table-3: Reasons for food restriction

Reasons	n = 232	Percentage
Jaundice	212	91%
Abdominal pain/colic	139	60%
Chest infection	40	17%
Diarrhoea	27	12%

Types of restricted foods during breastfeeding were divided into six categories after removing the items that were not selected by the participants. These included animal sources, yoghurts, starchy foods, vegetables, caffeinated drinks and spicy foods. The most commonly restricted food were potatoes, yoghurts and cabbage. Carbonated soft drinks were also commonly restricted during breastfeeding. (Table 2)

The main reasons associated with the food mentioned above restrictions during breastfeeding are described in Table 3. The food items most of the mothers considered allowed or recommended during breastfeeding were Soup, Milk, Desi Ghee and Nuts. Mothers also considered increasing their water intake and taking vitamins as useful. Some home-made products such as Suji Halwa and Achwani were also recommended

in Pashtun cultures (Table 4).

DISCUSSION

This study explores food restrictions and their reasons by breastfeeding mothers of neonates from Khyber Pakhtunkhwa. We also looked at the food allowed/recommended in Pashtoon culture. We found that Pashtoon breastfeeding women restrict certain type of food including potatoes, yoghurts and cabbage. Carbonated soft drinks were also commonly restricted during breastfeeding. The reasons were neonatal jaundice, abdominal pain and chest infections. They preferred soups, milk and nuts and perceived these as beneficial to the baby. We found that the restricted food items are important for the composition of breast milk⁹. The reasons for food restriction have no scientific basis and based on popular myths in the community as also reported in a Korean Study⁴. Given the prevailing myths and wrong practices, we expect this study will be a step towards recommending culture-specific dietary guidelines for breastfeeding mothers and help promote exclusive breastfeeding practices. Most mothers received food-related advice from nonmedical professionals. The findings help identify areas for improvement and focus in the undergraduate medical and allied health sciences curriculum for better mother and child health.

The most important reason why most mothers restricted food was Jaundice. In our cultural settings, simple neonatal jaundice is misperceived as Hepatitis-A infection by mothers, and they have been told by their mothers that its treatment usually is to reduce fats and protein intake, in general, to let the liver recover. Due to ignorance and such myths mothers withheld all type of spicy, high protein and fatty diets. In neonates, physiologic jaundice (also referred to as neonatal hyperbilirubinemia) typically appears in the first week of life. This occurs due to the breakdown of red blood cells releasing bilirubin into the blood, which neonate's liver is unable to metabolise and excrete into the urine¹⁴. The other major cause was abdominal pain/colic in newborn, and the mothers seem to avoid starchy food items such as potatoes and rice as these are thought to produce abdominal gas in mother bowel, which is believed to pass into the baby through breast milk, which is not evidence-based⁹. Lastly, yoghurts and carbonated drinks were avoided because these are considered to have a cold effect and may be the reason for chest infections in newborn, which is usually due to seasonal

variations. This belief to avoid cold foods/drinks is common in many cultures, as mothers consider this important to maintain a warm temperature within the body during postpartum periods¹⁰. Many Mothers avoid spicy foods as they believe it to be the cause of abdominal colic and diarrhoea in babies.

Meat, Chicken and Fish were not restricted by the majority of the respondents. Fish and seafood are beneficial due to its Docosahexaenoic acid (DHA) and Omega 3 content, which is important for visual acuity and neural development of the baby. However, there are some concerns about the mercury content of certain large fish, which might be the reason behind its restrictions by some of the mothers. The American Academy of paediatrics has concluded that risk of excessive mercury is offset by the neurobehavioral benefits of adequate DHA intake, which is important for the development of Brain, Intelligence and visual acuity¹⁵.

Pashtoon mothers reported taking fluids in the form of soup, milk and water as they perceived them effective in increasing production of Breast Milk. However, there is no evidence suggesting an increase in breast milk production with the increased fluid intake. However, some evidence did suggest it as counterproductive¹⁶. The recommended guidelines suggest breastfeeding mothers drink to thirst^{17,4}. Most of our findings are similar to those reported by Jeong et al⁴. However, we identified some local food items as well. Pashton mothers believed that eating nuts and suji halwa with added sugar provide a good source of energy. Hence they recommended these during breastfeeding. They also believed that vitamin and other herbal/ homoeopathic tablets increase milk quantities. Another product we came across was Achwani which is a mixture of suji, desi ghee, nuts and sugar. It seems a good balance combination of fats, carbohydrate, protein and fatty acids. According to World Health Organization foods containing trans fatty acids should be limited to less than 1% of overall energy intake¹⁸ as these may affect growth and development of the infant negatively¹⁹.

Our findings are not generalizable; however, North-west General Hospital receives patients from many different areas of KP and Afghanistan. The self-reported nature of findings is another concern, but it is common for collecting information regarding individuals' when estimating the prevalence of health risk factors and healthcare services²⁰. Future research

should compare our findings with other provinces of Pakistan and from other cultures. There is also a need to develop educational interventions based on these findings and evaluate the effectiveness of mothers' education on breastfeeding behaviours.

CONCLUSION

The study found that breastfeeding mothers of neonates in Khyber Pakhtunkhwa unnecessarily restrict their diets including potatoes, cabbage and cold drinks. These diet restrictions are mainly due to fear of causing newborn jaundice, abdominal colic or chest infections without any rationale or proven medical reasons or scientific basis. The community paediatrics curriculum should incorporate evidence-based and culturally adapted guidelines on a maternal diet for medical and allied healthcare practitioners. During the antenatal and postnatal period, community/nursing mothers should be educated regarding breastfeeding, their diet and related myths. We also recommend inclusion of nutritional guidelines for breastfeeding mothers in the undergraduate medical and allied health sciences curriculum for better mother and child health.

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