

Study of qualitative aspects for deteriorating nutritional status of rural households in Banda and Kannauj districts of Uttar Pradesh

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Abstract

The Uttar Pradesh state has been struggling with multiple challenges in nutrition, it is directly affected by social, economic, and environmental factors. Therefore this primer needs to deeply understand the determinants of nutrition to resolve the challenges. The main objective of the study is to understand the qualitative characteristics of the deteriorating nutritional status of rural households in the Uttar Pradesh state of India. Eight rural villages were selected for group discussion from the different agroclimatic zone of the Uttar Pradesh state in 2019-20, a total of 32 group discussions were conducted to understand food practice, food consumption, availability and accessibility, food prices, nutrition knowledge, and awareness, cropping pattern, kitchen garden & animal husbandry, other food sources, and bought foods. The result of the study showed that fruits and dry fruits, cooking oil, meat, pulses, and fish were expensive to the buying capacity of rural households, while staple food items (wheat, rice, and potato) were according to their affordability. Religious beliefs and restrictions about the food were not allowed to eat garlic, onion, and non-vegetarian food items in the broad community. Usually, homemakers did cook traditional recipes with less diversity in variety. Many misconceptions about available food were a reason for the fever intake of certain foodstuffs.

Keywords: Food security; qualitative study; Uttar Pradesh; nutritional aspects; rural nutrition; malnutrition; dietary practices; food practices.

Introduction

Uttar Pradesh besides being the most overcrowded also occurs to be in the concern of the most malnourished states in the country. The state has done even worse than fight zones like Jammu and Kashmir in the recently published results of the National Family Health Survey-5 (NFHS-5). Malnutrition has been a longstanding predicament in Uttar Pradesh, India [1].

Agriculture is the mainstay of most of the rural people living in Uttar Pradesh. Apart from farming, they are dependent on animal husbandry and secondary activities like dairy, poultry, fisheries, beekeeping, and sericulture [2]. Persistent droughts (due to climate change in recent years) and erratic monsoons have affected the livelihoods of the people living in the region [3]. Water scarcity (due to a lack of assured irrigation facilities), as well as low agricultural productivity, have affected not only the purchasing power of the people but also the food and nutritional security of both children and adults [4].

Qualitative research is the investigation of people's beliefs, perceptions, and behaviors with less time and effort [5]. The method can also facilitate inquiry into complex issues, which are often difficult to investigate through usual survey methods. Qualitative descriptions provide an opportunity to address the non-quantifiable structures of food consumption studies such as settings and circumstances of dietary practices, fascinating anecdotes, and opinions about foods as well as the historical evolution of cooking practices [6]. The following procedures are the most commonly used in qualitative research: (I) in-depth interviewing (II) direct observation (III) participant observation (IV) Focus Group Discussions (FGD). In this research FGD technique of qualitative data collection was used.

FGDs contain using groups and group progressions to produce discussion on a topic of consideration [8]. The discussion aims to reconnaissance issues rather than simply define or explain them. This technique allows investigators to grasp deeper levels of denotation through the use of the contributor's own words and modes of expression [9]. The procedure of local people discussing a topic on their rapport with one another will yield insights and permit ordinary discourse that would not be available using standard one-on-one interviewing [10]. The main objective of this study is to understand the qualitative aspects of distressing the nutritional status of rural Households (HHs) by conducting FGDs to bring out information about the prevailing food practices., food availability, food affordability, food accessibility, awareness, and knowledge related to food and nutrition.

Methodology

The targeted population for FGDs: Eight rural villages were selected for group discussion from the different agroclimatic zone of the UP state in 2019-20 and four FGDs was conducted in each village. A total of 32 group discussions were completed from the selected population.

FGD Groups: In the selected villages, discussions were held in four types of groups, (I) Head of HHs doing farming, (II) Homemakers of farming HHs, (III) Head of HHs doing other than farming, and (IV) Homemakers of non-farming HHs. The motive behind selecting different groups was the desire to achieve diversified results and to cover unexplored aspects. According to United Nations Children's Fund, (UNICEF), an FGD will generally take around one hour and should consist of a minimum of eight and a maximum of twelve participants [10]. It is best practice to hold separate FGDs with men and women or within homogeneous groups. This will motivate them to deliver their belief acquiescently [11]. In this study, eight to twelve members were included in a group after explaining the study proposal and technique of FGD.

Tools and techniques: Semi-structured FGD schedules were used To fulfill the purpose, the theme of the discussion was pre-determined, and the probes questions were also prepared to give impetus. FGDs themes included: food practice, food consumption, availability and accessibility, food prices, nutrition knowledge and awareness, cropping pattern, kitchen garden & animal husbandry, other food sources, and bought foods. The moderator asked broad questions to elicit responses and generate discussion among the participants. The moderator's goal was to generate the maximum amount of discussion and opinions within a given period.

Data analysis: The analytical techniques that lend themselves to focus group data are constant comparison analysis, classical content analysis, keywords-in-context, and discourse analysis [12]. Because focus group data are analyzed one focus group at a time, analysis of multiple focus groups effectively serves as a proxy for theoretical sampling, which is when additional sampling occurs to assess the meaningfulness of the themes and to refine themes.

Result and Discussion

Participants covered: A total number of 66 heads of HHs doing farming, 74 homemakers of farming, 70 heads of HHs doing other than farming, and 82 homemakers of non-farming HHs participated in the 32 FGDs. The homemakers who participated in the FGD were 20 women with no formal education, 67 who studied at the primary and secondary level, 42 at intermediate levels, and 27 who graduated or above. A total of 136 heads participated in the SDGs, were 14 heads of HHs with no formal education, 38 studied at the primary and secondary level, 56 intermediate levels, and 28 graduated or above.

Cropping pattern:

Concerning the crop pattern, the farmers generally cultivated two crops in a year in the Bundelkhand region. During Kharif (monsoon) they grew maize, sorghum, pearl millets, paddy, and fodder for animals. During the rabi (summer) seasons, wheat, green pea, bengal gram, black gram, lentil, and red gram were cultivated. In addition to these, some farmers' vegetables and green grams were produced during the summer season. In the Banda district of the Bundelkhand region, the farmers were cultivating sugarcane, but they have stopped cultivation of the same recently due to a delay in payment of sugarcane purchased by the sugar mills. Crops are grown throughout in year in the Kannauj district of the central region; wheat, potato, maize, paddy, green gram, black gram, peanuts, and peas were also being grown. More varieties of crops were being grown in the Kannauj district than in the Banda district; in summer and monsoon, crops were being grown mainly due to inadequate irrigation facilities in the Banda district, while in the Kannauj district, due to better irrigation, crops were produced throughout the year.

According to another research done in Bundelkhand, the rainfall pattern and the extent of irrigation in Bundelkhand theoretically favor monsoon cultivation, most of the land is cultivated in the rabi (post-monsoon) season [13].

Foods available for HH consumption:

Almost all the farmers from the selected villages reported that a part of their farm products such as wheat, paddy, maize, potato, onion, garlic, black gram, green gram, bengal gram, lentil, mustard, and vegetables is kept aside for HH consumption and the rest is sold in the market. Farmers of all regions produced pulses in minimal quantities; they were buying and consuming mainly from the market. In addition, all areas had green and leafy vegetables, fruits, eggs, and chicken in less quantity. The group

discussion showed that per capita consumption of cereals, edible oils, and vegetables had an increasing trend with the rise in income in both rural areas. Share of pulse consumption showed a mixed trend with the rise in income in rural. The group's missions in the Banda district reported that per capita consumption of cereals, edible oils, and vegetables increases as income rises and there is, in general, a declining trend in the share of these commodities among different classes. The by-products of many crops were also available in the village, such as mustard leaves, cauliflower leaves, chenopodium, and sweet potato leaves; participants have reported that all these things are available for free or at a very low cost if we choose them directly from the farm. Groups report that they are not very enthusiastic about using these things, usually making vegetables mixed in the market. The milk producers used to sell the milk wholesale and the wholesaler used to sell it in the city market, due to which the milk was not available for sale to the people living in the village. Milk or milk product was not available in any of the grassy shops in the village. The participants believed that the lack of a refrigerator facility for milk storage is the reason behind the unavailability, as well as the limited number of customers.

Seasonal variation:

Most of the groups from both regions reported seasonal variation in the availability of vegetables and fruits, and they consumed them as per the availability. During the rainy and winter seasons, green leafy vegetables (GLV) and other vegetables were available in plenty, and HHs have used various GLVs. They were using spinach, mustard leaves, fenugreek leaves, Bengal gram leaves, and cabbage, along with other vegetables, such as carrots, radishes, and tomatoes. While during the summer months, farmers were growing bottle gourd, pumpkin, cucumber, watermelon, and musk melon. Groups of the Bundelkhand region had reported that there is a problem with vegetables during the summer when vegetables are abundant during the rainy season because, during the rainy season, vegetables are produced in the kitchen garden when there is a shortage of vegetables in the kitchen garden during the summer. During the summer season in the region, the availability of fruits such as melon, and melon, but the availability of milk decreases. In rural areas, in the summer of May and June, when the prices of green vegetables are very high, potatoes are used the most. The prices of green vegetables increase even during heavy rains because vegetables start getting worse in the fields, as well as an inconvenience in transportation. In the same frosty season, there is an abundance of GLV, which some people keep dry and use non-season. In rural areas of Uttar Pradesh, dried gram leaves are kept in many homes, and are eaten during the summer season when there is a time of extremely hot wind. People believed that the dry leaves of gram protect from heatstroke, and protect the body in adverse conditions caused by hot air.

Kitchen garden & animal husbandry:

Most of the groups were growing vegetables in the kitchen garden during the autumn season only, because, in the Bundelkhand region, there is a shortage of water in the summer season, while the problem of water in Central Uttar Pradesh was very much a problem. Even after this, the enthusiasm of the people towards the kitchen garden was very less. Vegetables such as okra, spinach, gourd, bitter gourd, cucumber, pumpkin, brinjal, turnip, carrot, radish, beans, squash, tomato, peas, chilies, flowers, and cabbage, onion, garlic, and beet were grown in the kitchen garden but in most of the HHs, it is planted during monsoon.

The groups of the Kannaju district reported that respondents reported that the Ministry of Human Resource Development (MHRD) has given this direction by issuing a notice to all the government schools of Uttar Pradesh. The ministry has named this scheme 'Kitchen Garden'. Students up to class VIII will participate in it. As per the instructions of the ministry, schools do not have enough land to grow saplings. He can build a rooftop garden and use pots, containers, bags, and other techniques to cultivate the produce. The school staff and teachers will help the children in making the kitchen.

In the rural environment of Uttar Pradesh, milch animals are of great importance and are the main source of income for living as well as the source of nutrition. Some animal was reared in most of the HHs, and buffalo, cow, and goat were the main animals. In some places, chickens and ducks were reared but it was very less. It was concluded from the discussions of Bundelkhand that goat rearing was done more because the goat does not require much fodder, and can survive in hotter places. The fishy culture was not reported in the group discussion but was collected by many villagers from common sources, such as rivers, ponds, and lakes. According to the 20th livestock census, Uttar Pradesh has the highest livestock population of 67.8 million, followed by Rajasthan, Madhya Pradesh, and West Bengal.

Source type of food procurement:

Staple food items were available in the villages like wheat and rice. There were no permanent shops for vegetables in the village as well as dairy products, therefore fruits & green vegetables were used

less. Not everyone has milch animals in the villages, so many people want to buy milk and eat it, but there was no such shop in the villages from where milk or its products could be bought. Some people liked to eat eggs, but there was no availability of eggs in the villages, when men went to the market, they would come after eating eggs, but the women and children of the HH were deprived. People told that the reason behind the low availability of eggs, fish, and vegetables was less demand and poor preservation facilities. The availability of cold drinks in the village has increased because producers provide refrigerators to the shopkeepers to keep the cold drinks cool, whereas no facility is given by the producers for the preservation of milk, vegetables, and eggs. Groups report that salty & spicy chips, candies, and carbonated cool drinks are available in villages because their producers provide facilities for their storage and sale, as well as making good profits for the shopkeeper. The women's groups believed that salty & spicy chips, candies, and carbonated cool drinks are harmful to their children and family, but healthy things like fruits, and green vegetables are not available easily. The women of the village buy vegetables that the vendors come to sell from outside their doors, the women did not go to the market.

Almost all the farmers reported that the Public Distribution System (PDS) functioned efficiently in their respective villages and regularly got food commodities. The food commodities distributed through PDS included rice and wheat, supplied once a month. Most people believed that nutritious food use can be increased only if nutritious things are available in the village, so the availability of all things should be ensured in the villages.

Food purchasing capacity and prices:

In general, the farmers reported that they have to buy foods such as pulses, fruits, edible oil, vegetables and sugar, jaggery, eggs, meat, fishes from the market because these foods are not available in their villages or are not produced in enough amounts. Most of the homemakers expressed that the prices of some foods were a limiting factor in preventing the consumption of foods such as almonds, cashew nuts, dates, pistachios, apples, and oranges. Instead of the above expensive foods, homemakers preferred to use curds, milk, peanut and jaggery cakes, milk, and chapatis. It was concluded from the group of women that they make more cheap and easy-to-cook food. When the expensive or the cooking method is difficult, it cooks that food less.

The farmers used to sell the vegetables being produced in the village in the city market, After buying vegetables from the main market, small vendors used to sell vegetables in the village, due to which the price of vegetables increased. There were also very few sources of cash income in the villages, so the purchasing power of the people of the village was very low. Locally processed food was available in abundance in the villages, as it was proving to be a profitable product for the shopkeepers, and being cheap, people were comfortable feeding their children. Most of the participants believed that oil, milk, dry fruits, vegetables, and milk were not commensurate with their income, and the prices were exorbitant.

Prevailing food practices:

In all the villages, most of the homemakers were vegetarians, and they preferred to prepare only vegetarian foods in the HHs. Most of the group reported that the men of the HHs eat non-veg outside or make it themselves. The village of Kannauj district reported that non-veg is being cooked in some homes. All the groups noted that wheat chapati was being made twice a day in all the HHs; almost all homemakers were cooking rice once a day. Most of all, the groups reported that food was being cooked in the HHs twice daily. The older people eat two times a day, and the children of the HHs 3 to 4 times a day.

People in rural areas lacked enthusiasm for food, they wanted to eat only to satisfy hunger, some people were striving for good taste but few people paid attention to nutrition. It was learned from the group of women that the lack of proper facilities for cooking reduces their enthusiasm for cooking and they can cook only 2 times a day as time is also spent working in the fields and HHs. Women believe that they have incomplete ingredients to cook dishes, due to which they are not able to cook anything interesting even if they want and the consistency remains in the dishes. The choice of dishes is mostly done by older women of the HH like the mother-in-law, the grandmother who is more stingy about food. She wants to spend the minimum amount of ingredients for the food, due to which she always chooses the dishes cooked with the same ingredients. She says that she has seen very bad times, she slept hungry many times, so she still wants to use food items in small quantities.

Nutrition knowledge and awareness:

Regarding the participants' opinions about healthy or unhealthy foods, some of the homemakers from all the villages believed that the food bought outside, such as samosa, pakoda, kachori, and other packed foods are unhealthy. Homemade food such as dal rice, dal, maize chapatti, kichadi, and milk is

good for health. Homemakers were unaware of healthy or unhealthy foods. Most of the women did not know the need for food & nutrition according to their different physical conditions, and they were never made aware by any awareness campaign. The women believed that they need information about food and nutrition. Homemakers reported that women are mainly cooking traditional food. Even on the demand of eaters, she cannot make many dishes because the women have not received any kind of cooking training and now, they believe that they need training. Most of the HH heads who go food shopping, always like to buy cheap and popular things, they do not think about shopping according to the nutritional value of the food and the requirement of the body. Religious beliefs and practices hinder the use of non-veg food and are also the reason for not using some vegetarian food. In many other studies, it has been proved that the lack of education and awareness is having a bad effect on the consumption of nutritious food in the rural people of Uttar Pradesh [14].

Conclusions

Diet primarily cereals-based, which was lack of fruits, eggs, meat, and GLVs. Staple food was available to almost HHs in the village; meat, milk, and eggs were also available in the nearest main market. The milk was not directly available to the customer in the villages, most of the farmers sold milk to the wholesaler. There was plentiful availability of vegetables during the monsoon season, but in the summer season rate was getting hiked. Most of the women were vegetarian, due to which non-vegetarian dishes were not being prepared in the HH. Many of the men were non-vegetarians who used to eat non-vegetarian food from outside of the HH. Religious beliefs & restrictions and myths about the food were hindering the better use of available food. Women were cooking traditionally, they want to learn new recipes and methods. A mainstream of farmers and homemakers was not aware of healthy food habits.

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