A study to understand the traditions, customs and attitudes related to food and dietary practices among the tribals was undertaken in two agency blocks of Vizianagaram district, Andhra Pradesh, India. The food and dietary practices of the tribals in the two blocks were found to be the same. Some of their food and dietary habits are good in terms of nutritional value and should be preserved. Severe food and dietary restrictions were followed during ill health. Lactation and child feeding practices were found to be poor. Some of their attitudes to food are irrational and need correction.

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Introduction

Beliefs, customs and traditions influence the general pattern of living in any community (Cherian, 1981, Onuoha, 1982). Beliefs, inherent and integral as they are in the cultural matrix, act as invisible forces in translating pre-set ideas into overt acts and customs. Handed down from generation to generation, beliefs lend authority to customs, leading one to accept traditional customs and practices at their face value. The cultural pattern of each community determines the nature and extent of food behaviour found in the area (Randall and Sanjur, 1981). However, some of the traditions followed blindly by the tribals are good and should be preserved. Knowledge of their attitudes, traditional food and dietary habits is essential in planning appropriate health and nutrition programmes for the tribals. Information of this nature in the tribal population is very limited. A study was, therefore, undertaken to understand the food and dietary behaviour among the tribals in the two agency blocks of Vizianagaram district, Andhra Pradesh, India.

Materials and Methods

Selection of the Areas

Vizianagaram district in Andhra Pradesh, which has a tribal population of 1.53 lakhs was selected for the study. Out of the total 14 Panchayat Samithis in the district, Bhadragiri and Pachipenta agency blocks, were selected. Bhadragiri is bordered by Orissa State on the north, Seethampet on the east, Kurupam on the south and Parvathipuram on the west. There is no urban area in the block. Pachipenta is bounded by Salur on the north, Gajapathipuram on the south, Salur Samithi on the east and Orissa State on the west. The present study was carried in the two agency blocks where the tribal population of the district is concentrated.

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Selection of the Tribes

Several tribes live in the two blocks. Therefore, based on the concentration of various tribes, according to 1981 records of the Panchayat Samithis, four major tribes, namely Jatapu, Savara (from Bhadragiri block), Kondadora and Gadaba tribes (from Pachipenta block) were selected for the study.

Selection of Villages and Households

A list of villages under each tribe was obtained from the respective offices of the Panchayat Samithis and the selection of villages was done by simple random sampling procedures. Thus, six villages each from the Kondadora and Gadaba tribes were studied.

With regard to the selection of households, all the available households at the time of the visit were covered. Thus, the general survey covered 75 families from each of the four tribes amounting to 300 households. The list of villages, tribes and the number of families surveyed, are given in Table 1.

<table>
<thead>
<tr>
<th>Block</th>
<th>Tribes</th>
<th>Villages</th>
<th>Distance from head-quarter 1 km</th>
<th>Total number of households as in the record</th>
<th>Number of families surveyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhadragiri</td>
<td>Jatapu</td>
<td>Ragidi</td>
<td>30</td>
<td>22</td>
<td>10</td>
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<tr>
<td></td>
<td></td>
<td>Jatapu Kotapadu Colony</td>
<td>5</td>
<td>80</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manda</td>
<td>12</td>
<td>70</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manneli</td>
<td>15</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rastakurtabai</td>
<td>15</td>
<td>30</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kosangibhadra</td>
<td>20</td>
<td>30</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Savara</td>
<td>Tikkabai</td>
<td>18</td>
<td>30</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sadunuguda</td>
<td>8</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Savara Kotapadu Colony</td>
<td>6</td>
<td>72</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kannyaguda</td>
<td>7</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dhuhlukuppa</td>
<td>5</td>
<td>12</td>
<td>5</td>
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<tr>
<td></td>
<td></td>
<td>Kanaguda</td>
<td>5</td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Kondadora</td>
<td>Kuntum bade Valasa</td>
<td>10</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ethamanu Valasa</td>
<td>5</td>
<td>56</td>
<td>27</td>
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<tr>
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<td></td>
<td>Puligantu Valasa</td>
<td>8</td>
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<td>13</td>
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<td>Pindrangi Valasa</td>
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<td>Gadaba</td>
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<td></td>
<td>Kottavalasa</td>
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<tr>
<td></td>
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<td>Panukuvalasa</td>
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<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pedacheepuru Valasa</td>
<td>15</td>
<td>50</td>
<td>12</td>
</tr>
</tbody>
</table>

Collection of Information

A personal interview schedule, and an intensive observation, were the tools of the study. Information regarding the food and dietary habits and attitudes of the tribals in general, and in specific physiological conditions like ill-health, pregnancy, lactation and childhood, were collected, interviewing both the head of the household and the housewife. The meal pattern of the tribal families was obtained by noting the foods consumed by the family on the previous day.
Results and Discussion

Agriculture is the primary occupation of the majority of the tribals, and agricultural labour is the secondary occupation. Both podu (hill) and dry land cultivation are in practice. The major crops grown are paddy, serghum, bajra, ragi and other minor millets. The pulses cultivated are redgram, horsegram, and cowpea. The cash crops include tobacco, turmeric, castor, niger, sesame and groundnut. Their staple food is millet. Some uncommon foods like dukka chikkudu (Mucuna Pruriens), rajkeera seeds (Amartanthus Paniculatus), Judumulu (Vigna sp.) are also grown by them. They are in the habit of growing vegetables, especially gourd vegetables and pumpkin, in their fields and backyards. Collection of forest produce formed a part of the economy with all the tribes. During the lean period, they subsist on foods like wild tubers, caryota pith, mango stone, bamboo shoot (tender), mushroom, (Agaricus sp.) which are also stored round the year. Hill stream water forms the major source for drinking. Tribals of either sex are habituated to smoking and consumption of home made liquors prepared from zeelugu (caryota palm) tree and mohuva (bassia longifolia) flowers. The food and dietary behaviour of the four tribal groups studied was found to be the same and the findings are as given under.

Food Storage Practices

Tribals store food grains both for consumption and seed purposes. Earthenware pots of different sizes are commonly used for storage purpose. Sun-drying is the usual practice of storing foods. Tribals store tamarind in three different ways. The common method is storing it as it is without seeds. Other methods include sprinkling salt water on tamarind pulp and sun-drying, or adding salt and turmeric to pulp and sun-drying. On special occasions like festivals and marriages, tribals sacrifice cattle and the meat is stored for about a month. The meat is cut into pieces and the pieces are strung on a fibre and tied over the fire-place for drying, or the pieces are inserted between split bamboo and hung inside the house. No salt is added during the process. Pickling, or preservation of vegetables/fruits, is not known to them.

Food Processing Practices

Dehusking of food grains

Cereal and millets are dehusked by dry processing methods involving direct pounding of the grains. Only bajra and sorghum are dehusked after moistening the grains.

Tribals are habituated to parboiling new grains especially sama (panicum miliare), ooda (.echinecloa-colon-varfrumentacea), korra (setaria italica) and paddy (oryza sativa). Parboiling of the grain is done by boiling the grains with just sufficient water for about an hour till the water is completely absorbed by the grains. The grains are spread on a flat bamboo woven mat-like structure locally known as dangari and dried in shade prior to sundrying. The parboiled grain locally known as uppulu is stored for about one to three months and is dehusked in small quantities when required.

Culinary Practices

Boiling is the common cooking procedure adopted by the tribals. The food grains are washed twice before cooking and then added to the boiling water and cooked. Millets
are cooked in large amounts of water in the ratio of 1:5 and consumed in gruel form. Tribals are in the habit of preserving left-over rice in congee and consume it as a morning meal before going for work. Ragi is prepared by fermenting ragi batter for 15 to 18 hours. A small quantity of bajra bran is added to the batter which serves as a starter for initial fermentation. Combination products of millets and rice are also preferred by them, in that, rice is added to half cooked millet and cooking is continued till done. Lagumes are cooked whole, either alone or in combination with cereals and millets.

Meal Pattern

Tribals eat mainly three meals a day. Their diet is monotonous with fewer dietary combinations. The usual combination among a majority of the tribals are found to be staple with vegetables and staple with or without tamarind rasam. Flesh foods are consumed occasionally. Gingelly cake products, purchased from local vendors, are observed to be a regular item in their meals and are consumed in small quantities.

Attitude to Food

Millet are considered to be good compared to rice and the tribals are habituated to consumption of mixed grains. In terms of their complementary nutritional value, this practice is very good and should be encouraged. Tribals prefer the traditional variety of bajra over hybrid bajra, (which is also cultivated in the area), as the latter is believed to cause joint pains and diarrhoea. Consumption of freshly harvested grains of paddy, korra (setaria italica), sama (panicum miliare) and ooda (echinocloa-colonia-var-frumentacea) are said not to be good for health. But when need arises, as in shortage of food grains, the fresh grains are parboiled and consumed.

Rice or millet beer is believed to provide health and strength to the body and is said to have a cooling effect on the body if consumed in greater quantities (about eight to ten litres) in the summer. Though fermented ragi gruel is considered good for health and preferred by the tribes for its sour taste, the product is restricted to those suffering from illness and to lactating women. Among the uncommon foods, tenkapindi (made from dried mango stone) and mucuna pruriens are considered good for health, whereas caryota palm pith is said to cause vatham (body pains). Milking the cow is believed to be a sin, but milch cattle are sacrificed for meat.

Diet during Specific Physiological Conditions

Severe dietary restrictions are followed by the tribals during illness. The diet mainly consists of rice and tamarind rasam (boiled liquid extract obtained by squeezing tamarind pulp with water) to which a little salt is added during boiling.

During pregnancy, no food restrictions are followed. However, severe food restrictions are practised during the lactation period. After delivery, the woman is given in small quantities a ground paste made with asafoetida and jaggery. It is believed to be good for health and to prevent stomach pain. Lactating women are given boiled and cooled water for drinking.

The drinking water is usually boiled with some special ingredients like pippallu (piper longum), karakkai (myrobalan), blackpepper (piper nigrum), zeera (cuminum cyminum), mustard seeds (brasica nigra), and roots like nallu upperu (vitis
quadrangularis) and chitramulam (plumbago zeylanicum) and then filtered. The filtered water known as pippallu nelu is given for drinking for nine days in the place of ordinary water. If pippallu water is not tolerated, water boiled with dried bamboo shoot is given which is believed to cure stomach pain. The residue obtained at the time of preparation of pippallu water is made use of in the preparation of pippallu kayakam, a paste-like mixture obtained by boiling the residue in combination with jaggery. It is given in small amounts to the woman for the first nine days after delivery.

After delivery the woman is given a bath on the third day. The water used for bathing is boiled with some wild leaves, which are believed to eliminate the body odour and relieve body pains. From the third day onwards food consisting of steaming hot rice, redgram dhal rasam (supernatant liquid obtained after boiling redgram dhal) and dhania karam (powdered mixture of dried coriander seeds, chilli powder and salt) is given once a day. From the ninth day onwards, the same diet is given twice a day. They resume a normal diet after one to three months depending on their economic condition. Before switching on to the normal diet, a native medicine is taken which is believed to guard against ill-effect in general.

Some foods are restricted for lactating women for a period of two months to one year, even after resuming normal diet. The details are as follows. Among the three varieties of ragi, a traditional punasa variety is preferred and given after a period of one to two months after delivery. Unfermented ragi gruel is considered good for health over the fermented one. Consumption of bajra is avoided for three months, as it is believed to make the mother's milk indigestible for the infant. Black coloured horsegram grown in dry land (sirikandi) is preferred to the gram grown in the hills (podukandi).

With regard to restriction of vegetables, small-sized ridge gourd and bottle gourd are preferred to the big-sized ones as the latter are believed to interfere with the digestion of mother's milk. Brinjal and green leafy vegetables are avoided by the mother for about six months for fear that the child may pass green stools. Pumpkin is believed to cause vatham (pains). Tamarind is avoided for about a month as it is believed to delay the cure of the child's sore navel. Raw onion is avoided as it is considered to be cold producing.

All roots and tubers, excepting a wild tuber, arika tega (dioscorea oppositifolia), are avoided for one year. Arika tega is considered to have medicinal value too.

Among the flesh foods, prawns and cock meat are avoided for a year for fear that the child's neck might be deformed likewise. Except hen's meat, the flesh foods in general are avoided for five to six months as they are considered harmful for the health of the mother and the infant. Mahua flowers, mucuna pruriens and papaya fruit are considered galactogogues by the tribal women.

Attitudes towards Child Feeding Practices

The child is put to breast on the same day of delivery and the colostrum is not discarded by the tribal women. The majority of tribal women suggested one to two years as the age for weaning. The child is breast-fed upto two or three years and then weaned directly to an adult diet.
Discussion and Conclusion

Tribals should be encouraged to eat millets, as millet provide more protein, vitamin B and minerals compared to rice. The processing of millets should be made easier by improved processing techniques that are within the reach of tribals. The practice of parboiling the freshly harvested millets and paddy seemed to have been evolved by the tribals as an effective measure to improve the taste and cooking quality of the grain, apart from facilitating dehusking of the grain. However, the practice of parboiling the grains is good as it helps in retention of vitamins. The traditional method of parboiling followed, may be modified and made less tedious with an appropriate technology. It is evident from the survey that the bulk density of their diet is low, as the staple grain is consumed mostly in gruel form. It is a traditional habit for the tribals to consume millets in gruel form, as they care more for the volume of food which readily fills their stomach, than its nutritional value. This aspect calls for the attention of nutritionists working in tribal areas.

The habit of consuming combination products of millets and/or rice/legumes is good in terms of their complementary nutritional value and should be encouraged. Consumption of gingelly seed-cake product should be encouraged as it provides the limiting amino acids, lysine and methionine in a cereal based diet (Srikantia, 1984). They should be taught proper preparation of gingelly cake product at home as they cultivate it too. The adverse effects of regular intake of home-made liquors by the tribal should not be overlooked and they may be persuaded to overcome the habit through extensive health and nutrition education.

Some beliefs about foods of the tribals, followed during lactation, are irrational and need correction. Confirmation may be needed with regard to galactagogues and foods attributed to having a specific medicinal value. The practice of feeding the newborn with colostrum is good and should be encouraged.

However, late weaning and improper feeding practices, should be corrected through nutrition education of proper weaning practices, supplementary feeding and preparation of weaning foods with local foods. A cultural stigma prevents them from consuming milk. Milking the cow is considered a sin. However, since milk is a nutritious food, especially for growing children, tribals should be persuaded to consume milk and proper techniques of milking the cow should be taught to them.

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REFERENCES

Cherian, A. 1981
Onuoha, G. B. I. 1982
Randell, E. and D. Snajur 1981
Srikantia, S. G. 1984


"Food preferences, their conceptualization and relationship to consumption", Ecology of Food and Nutrition, 11(2): 151-161.
